

**CARACTERIZACIÓN
FÍSICO-QUÍMICA DE
SISTEMAS
ORGÁNICO - ACUOSO
Y ACUOSO - ACUOSO
ANEXOS**

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Anexo A

Tablas

de

Propiedad



A. Tablas de Propiedad.

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A. PROPIEDAD

Tabla A.1. Influencia de la composición sobre los índices de refracción, las variaciones de índices de refracción de la mezcla binaria x_1 etanol (1) – x_2 agua (2) en el intervalo de temperaturas (318.15- 288.15) K.

x_1	n_D				δn_D			
	318.15	308.15	298.15	288.15	318.15	308.15	298.15	288.15
0.00000	1.32985	1.33130	1.33250	1.33338	0.00000	0.00000	0.00000	0.00000
0.09156	1.34163	1.34432	1.34641	1.34818	0.00991	0.01086	0.01146	0.01204
0.19936	1.34940	1.35280	1.35602	1.35915	0.01547	0.01681	0.01819	0.01977
0.27951	1.35215	1.35602	1.35959	1.36302	0.01658	0.01815	0.01962	0.02123
0.37014	1.35372	1.35780	1.36127	1.36502	0.01630	0.01781	0.01888	0.02051
0.50426	1.35457	1.35872	1.36261	1.36665	0.01440	0.01558	0.01663	0.01810
0.60280	1.35436	1.35869	1.36267	1.36709	0.01218	0.01324	0.01406	0.01558
0.69912	1.35393	1.35825	1.36231	1.36691	0.00978	0.01054	0.01113	0.01251
0.80778	1.35300	1.35733	1.36171	1.36600	0.00662	0.00707	0.00763	0.00833
0.90075	1.35173	1.35616	1.36050	1.36505	0.00345	0.00372	0.00393	0.00458
1.00000	1.35031	1.35477	1.35915	1.36347	0.00000	0.00000	0.00000	0.00000

Tabla A.2. Influencia de la composición sobre la densidad, el volumen de exceso, la velocidad del sonido, la compresibilidad isoentrópica, la variación de la compresibilidad isoentrópica de mezcla para x_1 etanol (1) – x_2 agua (2) en el intervalo (318.15-288.15) K.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
318.15 K					
0.0000	990.21	0.00000	1536.6	424.3	0.0
0.0503	969.24	-0.25138	1580.6	408.8	-49.2
0.0916	954.86	-0.45944	1588.3	409.5	-76.0
0.1994	918.36	-0.81097	1499.6	474.4	-83.3
0.2795	893.85	-0.93727	1422.9	540.2	-71.1
0.3701	869.64	-0.99251	1350.6	615.3	-56.6
0.5043	840.39	-0.97914	1270.5	718.5	-43.2
0.6028	822.41	-0.89553	1222.8	792.0	-35.6
0.6991	807.17	-0.76796	1183.2	861.3	-30.7
0.8078	791.78	-0.54902	1141.8	942.4	-22.3
0.9007	779.82	-0.29844	1109.1	1013.9	-13.0
0.9481	773.95	-0.13769	1092.2	1053.3	-5.2
1.0000	768.48	0.00000	1075.9	1093.3	0.0
315.65 K					
0.0000	991.24	0.00000	1533.2	426.4	0.0
0.0503	970.36	-0.24815	1581.3	408.7	-50.5
0.0916	956.29	-0.45939	1592.1	408.0	-78.2
0.1994	920.28	-0.81619	1506.6	470.9	-85.6
0.2795	895.85	-0.94151	1430.2	535.9	-73.0
0.3701	871.77	-0.99879	1358.5	609.6	-58.4
0.5043	842.57	-0.98443	1278.5	711.2	-44.4
0.6028	824.60	-0.90031	1231.1	783.3	-36.7
0.6991	809.38	-0.77266	1191.6	851.3	-31.5
0.8078	793.98	-0.55281	1150.5	930.7	-23.1
0.9007	781.99	-0.30003	1117.7	1001.1	-13.4
0.9481	776.11	-0.13965	1100.8	1039.9	-5.5

Tabla A.2. Continuación

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
1.0000	770.62	0.00000	1084.3	1079.3	0.0
313.15 K					
0.0000	992.21	0.00000	1529.3	428.8	0.0
0.0503	971.52	-0.24637	1581.4	409.0	-51.9
0.0916	957.75	-0.46032	1595.5	406.7	-80.4
0.1994	922.24	-0.82233	1513.2	467.7	-88.1
0.2795	897.99	-0.94955	1437.3	531.7	-75.1
0.3701	873.96	-1.00573	1365.8	604.5	-60.1
0.5043	844.86	-0.99260	1286.6	704.0	-45.9
0.6028	826.90	-0.90727	1239.3	774.9	-37.8
0.6991	811.67	-0.77879	1200.1	841.6	-32.5
0.8078	796.25	-0.55697	1158.9	919.6	-23.6
0.9007	784.24	-0.30280	1126.2	988.7	-13.8
0.9481	778.36	-0.14164	1109.1	1027.1	-5.6
1.0000	772.84	0.00000	1092.7	1065.7	0.0
310.65 K					
0.0000	996.19	0.00000	1525.0	431.5	0.0
0.0503	975.76	-0.24514	1581.3	409.4	-53.3
0.0916	962.21	-0.45900	1598.8	405.6	-82.8
0.1994	927.17	-0.82400	1519.7	464.7	-90.7
0.2795	903.02	-0.95065	1444.3	527.8	-77.3
0.3701	879.08	-1.00734	1373.2	599.4	-62.0
0.5043	849.97	-0.99242	1294.4	697.4	-47.3
0.6028	832.02	-0.90754	1247.5	766.8	-39.1
0.6991	816.78	-0.77928	1208.5	832.1	-33.7
0.8078	801.35	-0.55839	1167.4	908.8	-24.4
0.9007	789.28	-0.30287	1134.6	976.7	-14.2
0.9481	783.37	-0.14175	1117.5	1014.5	-5.8
1.0000	777.84	0.00000	1101.0	1052.6	0.0
308.15 K					
0.0000	994.03	0.00000	1520.3	434.5	0.0
0.0503	973.83	-0.24533	1581.0	410.0	-55.0
0.0916	960.58	-0.46262	1602.1	404.5	-85.5
0.1994	926.16	-0.83696	1526.5	461.5	-93.7
0.2795	902.18	-0.96502	1451.3	523.9	-79.8
0.3701	878.33	-1.02166	1380.7	594.4	-64.1
0.5043	849.32	-1.00607	1302.2	690.7	-48.9
0.6028	831.41	-0.92035	1255.7	758.8	-40.4
0.6991	816.21	-0.79073	1216.8	823.0	-34.5
0.8078	800.75	-0.56533	1175.9	898.2	-25.0
0.9007	788.69	-0.30720	1143.1	965.0	-14.5
0.9481	782.79	-0.14476	1125.9	1002.1	-6.0
1.0000	777.23	0.00000	1109.4	1039.6	0.0
305.65 K					
0.0000	994.86	0.00000	1515.1	437.9	0.0
0.0503	974.85	-0.24354	1580.3	410.7	-56.8
0.0916	961.94	-0.46411	1605.0	403.6	-88.3
0.1994	928.03	-0.84346	1532.7	458.7	-96.6
0.2795	904.22	-0.97302	1458.1	520.1	-82.4

Tabla A.2. Continuación

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
0.3701	880.46	-1.02941	1388.0	589.6	-66.3
0.5043	851.52	-1.01362	1310.1	684.3	-50.6
0.6028	833.61	-0.92611	1263.8	751.1	-41.9
0.6991	818.42	-0.79592	1225.1	814.1	-35.6
0.8078	802.97	-0.57008	1184.4	887.8	-25.9
0.9007	790.87	-0.30884	1151.5	953.7	-14.8
0.9481	784.97	-0.14645	1134.4	990.0	-6.3
1.0000	779.40	0.00000	1117.8	1026.9	0.0
303.15 K					
0.0000	995.65	0.00000	1509.5	441.5	0.0
0.0503	975.85	-0.24201	1579.5	411.6	-58.7
0.0916	963.27	-0.46546	1608.0	402.6	-91.3
0.1994	929.95	-0.85135	1539.2	455.7	-100.0
0.2795	906.29	-0.98146	1465.1	516.4	-85.2
0.3701	882.59	-1.03698	1395.3	584.8	-68.7
0.5043	853.72	-1.02040	1317.9	677.9	-52.5
0.6028	835.84	-0.93227	1271.9	743.5	-43.4
0.6991	820.67	-0.80190	1233.5	805.2	-36.8
0.8078	805.20	-0.57349	1192.8	877.7	-26.6
0.9007	793.09	-0.31164	1160.0	942.4	-15.2
0.9481	787.17	-0.14798	1142.8	978.1	-6.5
1.0000	781.59	0.00000	1126.2	1014.4	0.0
300.65 K					
0.0000	996.37	0.00000	1503.4	444.1	0.0
0.0503	976.78	-0.24042	1578.2	411.5	-60.6
0.0916	964.53	-0.46667	1610.6	400.6	-94.3
0.1994	931.81	-0.85957	1545.5	451.5	-103.1
0.2795	908.31	-0.99056	1471.8	511.2	-87.9
0.3701	884.69	-1.04551	1402.5	578.3	-71.0
0.5043	855.89	-1.02791	1325.5	669.6	-54.1
0.6028	838.02	-0.93879	1280.0	733.6	-44.8
0.6991	822.86	-0.80769	1241.8	794.0	-37.8
0.8078	807.38	-0.57760	1201.3	864.8	-27.3
0.9007	795.27	-0.31453	1168.4	928.1	-15.5
0.9481	789.33	-0.14938	1151.2	963.2	-6.7
1.0000	783.73	0.00000	1134.6	998.6	0.0
298.15 K					
0.0000	997.04	0.00000	1496.9	449.8	0.0
0.0503	977.63	-0.23810	1576.8	414.0	-63.0
0.0916	965.78	-0.46854	1613.3	401.2	-98.1
0.1994	933.68	-0.86828	1551.8	450.3	-107.3
0.2795	910.32	-0.99969	1478.5	509.4	-91.4
0.3701	886.79	-1.05407	1409.7	575.8	-74.0
0.5043	858.05	-1.03540	1333.2	665.9	-56.4
0.6028	840.20	-0.94484	1288.1	728.9	-46.7
0.6991	825.06	-0.81285	1250.1	788.4	-39.2
0.8078	809.58	-0.58153	1209.9	858.0	-28.4
0.9007	797.44	-0.31633	1176.8	920.7	-15.9
0.9481	791.50	-0.15048	1159.7	955.2	-6.9

Tabla A.2. Continuación

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
1.0000	785.89	0.00000	1143.1	990.2	0.0
295.65 K					
0.0000	997.65	0.00000	1489.9	454.5	0.0
0.0503	978.43	-0.23592	1575.2	415.4	-65.5
0.0916	966.92	-0.46899	1615.9	400.5	-101.9
0.1994	935.52	-0.87745	1558.2	447.5	-111.4
0.2795	912.29	-1.00862	1485.2	506.0	-94.9
0.3701	888.85	-1.06258	1416.8	571.4	-77.0
0.5043	860.19	-1.04265	1341.0	660.0	-58.6
0.6028	842.36	-0.95108	1296.3	721.7	-48.6
0.6991	827.23	-0.81782	1258.4	780.2	-40.6
0.8078	811.73	-0.58440	1218.5	848.3	-29.4
0.9007	799.60	-0.31827	1185.4	910.0	-16.4
0.9481	793.64	-0.15169	1168.3	944.0	-7.2
1.0000	788.02	0.00000	1151.6	978.4	0.0
293.15 K					
0.0000	998.20	0.00000	1482.5	459.5	0.0
0.0503	979.19	-0.23390	1573.4	416.7	-68.3
0.0916	968.06	-0.47053	1618.6	399.7	-106.2
0.1994	937.33	-0.88690	1564.8	444.7	-115.9
0.2795	914.27	-1.01880	1492.2	502.4	-98.8
0.3701	890.93	-1.07235	1424.2	566.9	-80.2
0.5043	862.31	-1.05015	1348.8	654.1	-61.1
0.6028	844.53	-0.95833	1304.8	714.2	-50.9
0.6991	829.39	-0.82328	1267.0	771.8	-42.1
0.8078	813.89	-0.58826	1227.3	838.4	-30.6
0.9007	801.75	-0.32065	1194.1	899.3	-16.9
0.9481	795.79	-0.15348	1177.1	932.6	-7.6
1.0000	790.15	0.00000	1160.3	966.5	0.0
290.65 K					
0.0000	998.68	0.00000	1474.7	464.9	0.0
0.0503	979.87	-0.23155	1571.6	418.3	-71.2
0.0916	969.14	-0.47205	1621.4	399.0	-110.7
0.1994	939.14	-0.89688	1571.4	442.0	-120.6
0.2795	916.24	-1.02900	1499.1	499.1	-102.8
0.3701	892.97	-1.08142	1431.6	562.5	-83.7
0.5043	864.42	-1.05720	1356.7	648.3	-63.7
0.6028	846.67	-0.96431	1315.3	704.9	-55.4
0.6991	831.54	-0.82748	1275.5	763.8	-43.7
0.8078	816.06	-0.59144	1236.8	828.1	-32.5
0.9007	803.89	-0.32092	1202.9	888.9	-17.3
0.9481	797.92	-0.15292	1185.8	921.7	-7.7
1.0000	792.30	0.00000	1169.1	954.9	0.0
288.15 K					
0.0000	999.10	0.00000	1466.4	470.7	0.0
0.0503	980.38	-0.22674	1569.8	419.8	-74.7

Tabla A.2. Continuación

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
0.0916	970.16	-0.47316	1624.2	398.3	-115.6
0.1994	940.86	-0.90559	1578.0	439.2	-125.6
0.2795	918.10	-1.03710	1506.0	495.6	-107.0
0.3701	894.99	-1.09049	1439.2	558.0	-87.5
0.5043	866.46	-1.06229	1364.7	642.4	-66.4
0.6028	848.80	-0.97061	1324.7	696.8	-58.5
0.6991	833.63	-0.82887	1284.0	755.7	-45.1
0.8078	818.20	-0.59409	1246.0	818.2	-33.9
0.9007	805.97	-0.31813	1211.5	878.7	-17.3
0.9481	800.00	-0.14926	1194.4	910.9	-7.5
1.0000	794.44	0.00000	1178.2	942.9	0.0

Tabla A.3. Influencia de la composición sobre los índices de refracción, las variaciones de índices de refracción de la mezcla binaria x_1 etanol (1) – x_2 *n*-hexano (2) en el intervalo de temperaturas (318.15- 288.15) K.

x_1	n_D				δn_D				
	T / K	318.15	308.15	298.15	288.15	318.15	308.15	298.15	288.15
0.0000		1.36045	1.36650	1.37227	1.37757	0.00000	0.00000	0.00000	0.00000
0.0992		1.35918	1.36526	1.37095	1.37659	-0.00030	-0.00010	-0.00003	0.00043
0.2014		1.35810	1.36413	1.36981	1.37555	-0.00039	-0.00006	0.00016	0.00085
0.3030		1.35721	1.36313	1.36874	1.37441	-0.00029	0.00011	0.00041	0.00116
0.4025		1.35632	1.36218	1.36774	1.37330	-0.00021	0.00030	0.00071	0.00147
0.5004		1.35546	1.36120	1.36654	1.37195	-0.00011	0.00044	0.00078	0.00151
0.6012		1.35450	1.36001	1.36522	1.37037	-0.00009	0.00041	0.00077	0.00137
0.7077		1.35344	1.35872	1.36367	1.36863	-0.00011	0.00034	0.00061	0.00114
0.7988		1.35248	1.35746	1.36229	1.36706	-0.00018	0.00013	0.00041	0.00087
0.8986		1.35146	1.35614	1.36074	1.36535	-0.00023	-0.00004	0.00016	0.00059
1.0000		1.35070	1.35502	1.35926	1.36332	0.00000	0.00000	0.00000	0.00000

Tabla A.4. Influencia de la composición sobre la densidad, el volumen de exceso, la velocidad del sonido, la compresibilidad isoentrópica, la variación de la compresibilidad isoentrópica de mezcla para x_1 etanol (1) – x_2 *n*-hexano (2) en el intervalo de temperaturas (318.15- 288.15) K.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
318.15 K					
0.0000	636.28	0.000	979.3	1638.6	0.0
0.0992	640.60	0.363	978.6	1630.0	42.4
0.2014	646.91	0.493	976.3	1621.7	86.7
0.2966	654.07	0.519	979.5	1593.6	107.5
0.4025	663.02	0.574	980.1	1570.2	138.7
0.5004	673.26	0.525	984.9	1531.3	150.1

Tabla A.4. Continuación

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
0.6012	685.65	0.466	992.6	1480.3	151.0
0.7077	701.05	0.423	1004.0	1415.1	140.6
0.7988	717.31	0.337	1018.2	1344.7	117.0
0.8986	739.44	0.200	1040.6	1249.0	72.7
1.0000	768.48	0.000	1075.9	1124.1	0.0
315.65 K					
0.0000	638.55	0.000	990.4	1596.6	0.0
0.0992	642.95	0.346	990.0	1587.0	39.3
0.2014	649.29	0.467	987.7	1578.8	81.5
0.2966	656.45	0.496	990.0	1554.3	103.9
0.4025	665.40	0.552	991.0	1530.2	132.0
0.5004	675.63	0.505	995.6	1493.2	143.3
0.6012	687.98	0.451	1003.0	1444.7	144.5
0.7077	703.34	0.413	1014.1	1382.6	134.9
0.7988	719.57	0.330	1027.9	1315.4	112.5
0.8986	741.63	0.199	1049.6	1224.0	70.4
1.0000	770.63	0.000	1084.3	1103.6	0.0
313.15 K					
0.0000	640.90	0.000	1001.7	1555.0	0.0
0.0992	645.37	0.329	1001.1	1546.0	37.8
0.2014	651.74	0.446	998.8	1538.0	77.9
0.2966	658.87	0.480	1001.7	1512.6	97.4
0.4025	667.84	0.531	1002.0	1491.5	126.2
0.5004	678.07	0.487	1006.2	1456.5	137.3
0.6012	690.40	0.435	1013.5	1410.1	138.4
0.7077	705.72	0.403	1024.0	1351.3	129.8
0.7988	721.91	0.323	1037.4	1287.2	108.6
0.8986	743.92	0.195	1058.6	1199.6	68.1
1.0000	772.85	0.000	1092.7	1083.7	0.0
310.65 K					
0.0000	643.23	0.000	1013.2	1514.4	0.0
0.0992	647.77	0.312	1012.3	1506.5	36.7
0.2014	654.16	0.426	1010.0	1498.6	74.8
0.2966	661.30	0.458	1013.4	1472.4	91.5
0.4025	670.27	0.511	1012.9	1454.2	120.9
0.5004	680.48	0.470	1016.9	1421.2	132.0
0.6012	692.79	0.423	1023.8	1377.1	133.3
0.7077	708.08	0.393	1034.0	1320.9	125.0
0.7988	724.21	0.318	1046.9	1260.0	105.0
0.8986	746.17	0.194	1067.5	1176.0	66.0
1.0000	775.05	0.000	1101.0	1064.4	0.0
308.15 K					
0.0000	645.55	0.000	1024.6	1475.7	0.0
0.0992	650.14	0.299	1023.5	1468.4	35.4

Tabla A.4. Continuación

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
0.2014	656.57	0.405	1021.2	1460.4	71.4
0.2966	663.73	0.435	1025.1	1433.7	85.7
0.4025	672.67	0.493	1023.8	1418.2	115.7
0.5004	682.86	0.454	1027.7	1386.7	126.3
0.6012	695.17	0.408	1034.3	1344.7	127.8
0.7077	710.41	0.383	1044.0	1291.6	120.5
0.7988	726.52	0.311	1056.5	1233.2	101.3
0.8986	748.42	0.191	1076.6	1152.8	63.8
1.0000	777.24	0.000	1109.4	1045.4	0.0
305.65 K					
0.0000	647.83	0.000	1035.7	1439.0	0.0
0.0992	652.48	0.286	1034.6	1431.8	33.7
0.2014	658.93	0.388	1032.4	1423.8	67.8
0.2966	666.08	0.419	1035.5	1400.1	83.3
0.4025	675.04	0.474	1034.8	1383.4	110.3
0.5004	685.22	0.439	1038.4	1353.5	120.7
0.6012	697.50	0.396	1044.6	1313.8	122.5
0.7077	712.73	0.373	1054.0	1263.0	115.7
0.7988	728.78	0.306	1066.0	1207.5	97.6
0.8986	750.64	0.188	1085.6	1130.4	61.7
1.0000	779.40	0.000	1117.8	1026.9	0.0
303.15 K					
0.0000	650.15	0.000	1047.1	1402.9	0.0
0.0992	654.85	0.275	1046.0	1395.6	31.8
0.2014	661.32	0.372	1043.7	1388.2	64.8
0.2966	668.48	0.402	1046.6	1365.7	79.7
0.4025	677.42	0.461	1045.8	1349.8	105.6
0.5004	687.58	0.427	1049.1	1321.5	115.9
0.6012	699.85	0.387	1055.1	1283.7	117.8
0.7077	715.06	0.365	1064.0	1235.2	111.3
0.7988	731.07	0.301	1075.6	1182.3	94.2
0.8986	752.88	0.187	1094.6	1108.5	59.9
1.0000	781.59	0.000	1126.2	1008.7	0.0
300.65 K					
0.0000	652.42	0.000	1058.4	1368.3	0.0
0.0992	657.16	0.264	1057.5	1360.7	29.8
0.2014	663.66	0.355	1054.9	1354.0	61.7
0.2966	670.84	0.384	1057.3	1333.4	77.0
0.4025	679.76	0.445	1056.7	1317.5	101.1
0.5004	689.90	0.414	1059.8	1290.5	110.9
0.6012	702.15	0.376	1065.5	1254.6	113.1
0.7077	717.33	0.357	1074.0	1208.6	107.2
0.7988	733.32	0.295	1085.2	1158.0	90.9
0.8986	755.07	0.184	1103.6	1087.3	58.0
1.0000	783.73	0.000	1134.6	991.1	0.0

Tabla A.4. Continuación

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
298.15 K					
0.0000	654.70	0.000	1069.8	1334.5	0.0
0.0992	659.48	0.254	1069.1	1326.7	28.0
0.2014	666.01	0.341	1066.2	1320.9	59.1
0.2966	673.19	0.368	1068.1	1302.1	74.5
0.4025	682.11	0.430	1067.7	1286.0	96.7
0.5004	692.23	0.403	1070.5	1260.5	106.5
0.6012	704.46	0.367	1075.9	1226.2	108.6
0.7077	719.61	0.350	1084.0	1182.6	103.4
0.7988	735.57	0.291	1094.8	1134.2	87.8
0.8986	757.28	0.183	1112.8	1066.5	56.1
1.0000	785.89	0.000	1143.1	973.8	0.0
295.65 K					
0.0000	656.96	0.000	1081.4	1301.7	0.0
0.0992	661.78	0.245	1080.7	1293.9	26.5
0.2014	668.32	0.328	1077.5	1288.8	56.6
0.2966	675.52	0.352	1079.0	1271.4	72.0
0.4025	684.40	0.419	1078.8	1255.6	92.7
0.5004	694.53	0.392	1081.4	1231.3	102.2
0.6012	706.74	0.358	1086.5	1198.7	104.4
0.7077	721.87	0.344	1094.1	1157.2	99.6
0.7988	737.78	0.288	1104.5	1111.1	84.9
0.8986	759.46	0.181	1121.9	1046.1	54.4
1.0000	788.03	0.000	1151.6	956.8	0.0
293.15 K					
0.0000	659.21	0.000	1093.1	1269.7	0.0
0.0992	664.08	0.234	1092.2	1262.3	25.4
0.2014	670.63	0.315	1089.0	1257.4	54.1
0.2966	677.83	0.340	1090.2	1241.2	69.3
0.4025	686.71	0.407	1090.0	1225.7	88.8
0.5004	696.83	0.381	1092.3	1202.8	98.2
0.6012	709.01	0.351	1097.1	1171.8	100.3
0.7077	724.12	0.337	1104.4	1132.2	95.8
0.7988	740.02	0.282	1114.5	1087.9	81.5
0.8986	761.64	0.180	1131.2	1026.0	52.6
1.0000	790.16	0.000	1160.3	940.0	0.0
290.65 K					
0.0000	661.45	0.000	1106.0	1235.9	0.0
0.0992	666.36	0.226	1103.8	1231.7	26.8
0.2014	672.93	0.303	1100.5	1227.0	54.1
0.2966	680.13	0.328	1101.2	1212.5	69.3
0.4025	689.01	0.396	1101.2	1196.9	86.8
0.5004	699.13	0.370	1103.2	1175.2	95.6
0.6012	711.27	0.344	1107.7	1145.8	97.8

Tabla A.4. Continuación

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
0.7077	726.36	0.333	1114.7	1107.9	93.2
0.7988	742.22	0.281	1124.3	1065.9	79.7
0.8986	763.81	0.180	1140.6	1006.4	51.3
1.0000	792.31	0.000	1169.1	923.4	0.0
288.15 K					
0.0000	663.64	0.000	1118.3	1205.0	0.0
0.0992	668.63	0.210	1115.3	1202.3	26.9
0.2014	675.17	0.293	1111.9	1197.9	53.0
0.2966	682.36	0.319	1112.2	1184.7	68.1
0.4025	691.24	0.387	1112.4	1169.2	84.2
0.5004	701.40	0.356	1114.4	1147.9	92.2
0.6012	713.46	0.342	1118.4	1120.5	94.8
0.7077	728.54	0.331	1124.9	1084.7	90.7
0.7988	744.36	0.283	1134.0	1044.7	78.0
0.8986	765.91	0.183	1149.9	987.4	50.4
1.0000	794.44	0.000	1178.2	906.8	0.0

Tabla A.5. Influencia de la composición sobre los índices de refracción, las variaciones de índices de refracción de la mezcla binaria x_1 etanol (1) – x_2 n-heptano (2) en el intervalo de temperaturas (318.15- 288.15) K.

x_1	n_D				δn_D				
	T / K	318.15	308.15	298.15	288.15	318.15	308.15	298.15	288.15
0.0000		1.37410	1.37952	1.38491	1.39027	0.00000	0.00000	0.00000	0.00000
0.0831		1.37273	1.37815	1.38355	1.38861	0.00057	0.00067	0.00077	0.00058
0.1688		1.37101	1.37639	1.38197	1.38704	0.00086	0.00101	0.00139	0.00132
0.2504		1.36957	1.37498	1.38043	1.38566	0.00133	0.00159	0.00194	0.00214
0.3543		1.36773	1.37313	1.37849	1.38359	0.00192	0.00229	0.00267	0.00287
0.4544		1.36563	1.37102	1.37639	1.38127	0.00216	0.00263	0.00314	0.00325
0.5585		1.36312	1.36850	1.37375	1.37851	0.00209	0.00266	0.00317	0.00329
0.6611		1.36050	1.36585	1.37093	1.37557	0.00187	0.00253	0.00298	0.00312
0.7610		1.35771	1.36298	1.36782	1.37249	0.00142	0.00211	0.00243	0.00273
0.8862		1.35391	1.35875	1.36342	1.36808	0.00055	0.00094	0.00124	0.00169
1.0000		1.35070	1.35502	1.35926	1.36332	0.00000	0.00000	0.00000	0.00000

A. Tablas de Propiedad.

Tabla A.6. Influencia de la composición sobre la densidad, el volumen de exceso, la velocidad del sonido, la compresibilidad isoentrópica, la variación de la compresibilidad isoentrópica de mezcla para x_1 etanol (1) – x_2 *n*-heptano (2) en el intervalo (318.15-288.15) K.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
318.15 K					
0.0000	662.43	0.000	1043.0	1387.8	0.0
0.1040	665.24	0.395	1036.2	1399.9	39.6
0.2010	669.46	0.513	1032.0	1402.6	67.8
0.3438	677.28	0.600	1027.7	1398.0	100.9
0.5444	692.42	0.599	1028.7	1364.9	120.6
0.6702	705.78	0.505	1032.3	1329.6	118.5
0.7569	716.95	0.466	1036.7	1297.7	109.5
0.8763	737.16	0.336	1048.9	1233.1	76.3
0.9172	746.02	0.252	1056.3	1201.4	55.4
0.9501	753.99	0.178	1062.7	1174.3	37.0
1.0000	768.48	0.000	1075.9	1124.1	0.0
315.65 K					
0.0000	664.55	0.000	1053.8	1355.1	0.0
0.1040	667.42	0.379	1046.6	1367.9	38.9
0.2010	671.66	0.494	1042.9	1369.0	64.4
0.3438	679.52	0.576	1038.3	1365.0	96.3
0.5444	694.68	0.578	1038.9	1333.7	115.4
0.6702	708.02	0.489	1042.2	1300.3	113.7
0.7569	719.17	0.454	1046.5	1269.6	104.8
0.8763	739.34	0.331	1058.0	1208.4	73.6
0.9172	748.19	0.249	1065.0	1178.4	53.8
0.9501	756.15	0.177	1071.4	1152.1	35.9
1.0000	770.63	0.000	1084.3	1103.7	0.0
313.15 K					
0.0000	666.72	0.000	1064.3	1324.3	0.0
0.1040	669.69	0.357	1057.0	1336.5	37.3
0.2010	673.94	0.470	1052.8	1338.7	62.8
0.3438	681.83	0.550	1048.9	1333.2	91.7
0.5444	696.99	0.558	1048.8	1304.3	111.0
0.6702	710.34	0.471	1052.0	1271.9	108.9
0.7569	721.46	0.442	1056.1	1242.8	100.6
0.8763	741.61	0.323	1067.1	1184.3	70.8
0.9172	750.45	0.244	1073.8	1155.7	52.1
0.9501	758.38	0.174	1080.0	1130.4	34.8
1.0000	772.85	0.000	1092.7	1083.7	0.0
310.65 K					
0.0000	668.89	0.000	1075.0	1293.6	0.0
0.1040	671.92	0.343	1067.4	1306.1	36.4

Tabla A.6. Continuación.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
0.2010	676.22	0.448	1063.8	1306.7	59.2
0.3438	684.12	0.528	1059.4	1302.4	87.6
0.5444	699.28	0.540	1059.0	1275.1	106.2
0.6702	712.63	0.456	1061.9	1244.4	104.4
0.7569	723.76	0.428	1065.7	1216.7	96.6
0.8763	743.86	0.316	1076.1	1160.9	68.2
0.9172	752.67	0.241	1082.4	1134.0	50.7
0.9501	760.62	0.171	1088.7	1109.2	33.4
1.0000	775.05	0.000	1101.0	1064.4	0.0
308.15 K					
0.0000	671.03	0.000	1085.6	1264.4	0.0
0.1040	674.13	0.328	1077.9	1276.7	35.1
0.2010	678.48	0.424	1074.5	1276.7	56.2
0.3438	686.40	0.504	1070.1	1272.3	83.1
0.5444	701.56	0.521	1069.4	1246.5	101.3
0.6702	714.90	0.442	1071.8	1217.8	100.2
0.7569	726.02	0.417	1075.3	1191.1	92.5
0.8763	746.08	0.311	1085.2	1138.1	65.7
0.9172	754.88	0.238	1091.2	1112.6	49.1
0.9501	762.82	0.169	1097.3	1088.7	32.4
1.0000	777.24	0.000	1109.4	1045.4	0.0
305.65 K					
0.0000	673.16	0.000	1096.3	1236.1	0.0
0.1040	676.33	0.312	1088.5	1247.9	33.6
0.2010	680.70	0.404	1084.9	1248.2	54.2
0.3438	688.64	0.483	1080.6	1243.5	79.4
0.5444	703.81	0.502	1079.7	1218.8	96.6
0.6702	717.13	0.430	1081.6	1191.9	96.1
0.7569	728.25	0.406	1085.0	1166.5	88.8
0.8763	748.29	0.305	1094.3	1115.9	63.2
0.9172	757.06	0.234	1100.0	1091.7	47.5
0.9501	764.99	0.167	1106.0	1068.5	31.3
1.0000	779.40	0.000	1117.8	1026.9	0.0
303.15 K					
0.0000	675.32	0.000	1107.0	1208.4	0.0
0.1040	678.54	0.300	1099.1	1220.0	32.4
0.2010	682.96	0.385	1095.4	1220.3	52.1
0.3438	690.90	0.463	1091.3	1215.4	75.6
0.5444	706.06	0.488	1090.0	1192.1	92.4
0.6702	719.40	0.416	1091.6	1166.6	92.0
0.7569	730.49	0.397	1094.6	1142.5	85.2
0.8763	750.52	0.299	1103.4	1094.4	61.0
0.9172	759.27	0.231	1108.8	1071.2	46.0
0.9501	767.20	0.164	1114.8	1048.8	30.0
1.0000	781.59	0.000	1126.2	1008.8	0.0

Tabla A.6. Continuación.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
300.65 K					
0.0000	677.44	0.000	1117.6	1181.7	0.0
0.1040	680.72	0.287	1109.6	1193.1	31.2
0.2010	685.16	0.367	1105.9	1193.3	49.9
0.3438	693.12	0.445	1101.8	1188.4	72.1
0.5444	708.28	0.473	1100.3	1166.2	88.2
0.6702	721.62	0.404	1101.5	1142.2	88.1
0.7569	732.71	0.386	1104.2	1119.3	81.8
0.8763	752.70	0.294	1112.4	1073.6	58.9
0.9172	761.44	0.228	1117.7	1051.2	44.3
0.9501	769.36	0.162	1123.5	1029.7	29.0
1.0000	783.73	0.000	1134.6	991.2	0.0
298.15 K					
0.0000	679.57	0.000	1128.4	1155.7	0.0
0.1040	682.90	0.275	1120.3	1166.7	30.0
0.2010	687.38	0.349	1116.6	1166.8	47.7
0.3438	695.36	0.427	1112.6	1161.8	68.7
0.5444	710.51	0.459	1110.6	1141.0	84.3
0.6702	723.85	0.392	1111.4	1118.5	84.7
0.7569	734.92	0.378	1113.8	1096.8	78.8
0.8763	754.90	0.289	1121.5	1053.2	56.9
0.9172	763.62	0.225	1126.6	1031.7	42.9
0.9501	771.54	0.160	1132.2	1011.0	28.2
1.0000	785.89	0.000	1143.1	973.8	0.0
295.65 K					
0.0000	681.68	0.000	1139.2	1130.4	0.0
0.1040	685.06	0.263	1131.1	1140.9	28.5
0.2010	689.56	0.335	1127.1	1141.5	46.0
0.3438	697.56	0.410	1123.3	1136.2	65.4
0.5444	712.73	0.445	1121.0	1116.5	80.6
0.6702	726.05	0.381	1121.4	1095.2	81.1
0.7569	737.11	0.370	1123.6	1074.6	75.5
0.8763	757.07	0.285	1130.7	1033.2	54.9
0.9172	765.77	0.223	1135.6	1012.5	41.3
0.9501	773.70	0.157	1141.1	992.6	27.1
1.0000	788.03	0.000	1151.6	956.9	0.0
293.15 K					
0.0000	683.78	0.000	1150.2	1105.5	0.0
0.1040	687.22	0.252	1142.1	1115.5	27.2
0.2010	691.75	0.319	1138.1	1116.0	43.7
0.3438	699.77	0.393	1134.2	1110.8	62.2
0.5444	714.92	0.432	1131.5	1092.6	77.1
0.6702	728.25	0.371	1131.6	1072.3	77.7
0.7569	739.30	0.361	1133.5	1052.7	72.5

Tabla A.6. Continuación.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
0.8763	759.23	0.280	1140.0	1013.5	53.0
0.9172	767.92	0.220	1144.8	993.7	40.0
0.9501	775.85	0.155	1150.0	974.6	26.3
1.0000	790.16	0.000	1160.3	940.0	0.0
290.65 K					
0.0000	685.89	0.000	1161.3	1081.2	0.0
0.1040	689.37	0.243	1153.3	1090.5	25.8
0.2010	693.92	0.306	1149.3	1091.0	41.5
0.3438	701.94	0.382	1145.1	1086.4	59.5
0.5444	717.11	0.421	1142.0	1069.2	73.9
0.6702	730.44	0.363	1141.9	1049.9	74.5
0.7569	741.48	0.355	1143.4	1031.5	69.8
0.8763	761.38	0.278	1149.3	994.3	51.3
0.9172	770.07	0.219	1153.8	975.4	38.9
0.9501	777.99	0.155	1158.7	957.4	26.1
1.0000	792.31	0.000	1169.1	923.4	0.0
288.15 K					
0.0000	687.95	0.000	1172.3	1057.7	0.0
0.1040	691.46	0.235	1164.4	1066.7	24.7
0.2010	696.04	0.295	1160.2	1067.3	40.0
0.3438	704.08	0.368	1156.2	1062.5	56.6
0.5444	719.24	0.413	1152.7	1046.4	70.9
0.6702	732.56	0.357	1152.1	1028.5	71.9
0.7569	743.60	0.352	1153.3	1011.1	67.6
0.8763	763.49	0.277	1158.7	975.5	50.1
0.9172	772.15	0.221	1162.6	958.2	38.9
0.9501	780.06	0.158	1167.2	941.0	26.7
1.0000	794.44	0.000	1178.2	906.8	0.0

Tabla A.7. Influencia de la composición sobre los índices de refracción, las variaciones del índice de refracción de la mezcla binaria x_1 etanol (1) – x_2 *n*-octano (2) en el intervalo de temperaturas (318.15- 288.15 K)

x_1	n_D				δn_D				
	T / K	318.15	308.15	298.15	288.15	318.15	308.15	298.15	288.15
0.0000		1.38455	1.38974	1.39509	1.40033	0.00000	0.00000	0.00000	0.00000
0.0845		1.38302	1.38889	1.39397	1.39910	0.00133	0.00208	0.00191	0.00190
0.1956		1.38156	1.38727	1.39240	1.39750	0.00363	0.00432	0.00432	0.00441
0.3047		1.37913	1.38480	1.38973	1.39476	0.00489	0.00564	0.00556	0.00571
0.4132		1.37672	1.38213	1.38711	1.39193	0.00616	0.00674	0.00682	0.00689
0.5109		1.37405	1.37932	1.38454	1.38931	0.00679	0.00732	0.00776	0.00789
0.6219		1.37104	1.37629	1.38115	1.38610	0.00754	0.00814	0.00834	0.00879
0.7121		1.36758	1.37267	1.37758	1.38212	0.00713	0.00765	0.00800	0.00814
0.8100		1.36270	1.36766	1.37246	1.37691	0.00557	0.00604	0.00639	0.00656
0.9039		1.35745	1.36224	1.36691	1.37153	0.00350	0.00388	0.00421	0.00465
1.0000		1.35070	1.35502	1.35926	1.36332	0.00000	0.00000	0.00000	0.00000

A. Tablas de Propiedad.

Tabla A.8. Influencia de la composición sobre la densidad, el volumen de exceso, la velocidad del sonido, la compresibilidad isoentrópica, la variación de la compresibilidad isoentrópica de mezcla para x_1 etanol (1) – x_2 *n*-octano (2) en el intervalo de temperaturas (318.15- 288.15) K.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
318.15 K					
0.0000	682.48	0.000	1085.4	1243.7	0.0
0.1008	684.15	0.376	1075.2	1264.4	32.7
0.2161	687.66	0.534	1071.9	1265.6	47.7
0.2997	690.81	0.607	1066.9	1271.7	63.8
0.3993	695.48	0.632	1065.2	1267.3	71.3
0.4995	701.21	0.635	1061.4	1266.0	82.0
0.5998	708.40	0.599	1059.4	1257.7	85.7
0.7010	717.56	0.535	1059.7	1241.1	81.2
0.8080	730.47	0.409	1060.5	1217.3	70.2
0.9000	745.57	0.241	1064.3	1184.0	47.9
1.0000	768.48	0.000	1075.9	1124.1	0.0
315.65 K					
0.0000	684.46	0.000	1095.8	1216.6	0.0
0.1008	686.20	0.359	1085.6	1236.5	31.3
0.2161	689.75	0.510	1082.2	1237.9	45.7
0.2997	692.93	0.581	1077.3	1243.4	60.6
0.3993	697.62	0.607	1075.4	1239.6	68.1
0.4995	703.36	0.611	1071.6	1238.1	77.9
0.5998	710.55	0.579	1069.5	1230.5	81.6
0.7010	719.73	0.518	1069.0	1215.9	78.4
0.8080	732.64	0.397	1070.1	1192.0	66.6
0.9000	747.74	0.235	1073.5	1160.5	45.5
1.0000	770.63	0.000	1084.3	1103.7	0.0
313.15 K					
0.0000	686.53	0.000	1106.2	1190.3	0.0
0.1008	688.36	0.338	1095.9	1209.6	30.1
0.2161	691.93	0.489	1092.4	1211.1	43.8
0.2997	695.13	0.556	1087.6	1216.2	57.9
0.3993	699.82	0.586	1085.6	1212.6	64.8
0.4995	705.60	0.588	1081.7	1211.2	74.1
0.5998	712.80	0.558	1079.4	1204.0	77.7
0.7010	721.99	0.500	1078.4	1191.1	75.5
0.8080	734.88	0.386	1079.6	1167.6	63.4
0.9000	749.98	0.228	1082.5	1137.8	43.5
1.0000	772.85	0.000	1092.7	1083.7	0.0
310.65 K					
0.0000	688.57	0.000	1116.5	1164.9	0.0
0.1008	690.49	0.321	1105.9	1184.1	29.3
0.2161	694.09	0.464	1102.6	1185.0	41.8
0.2997	697.31	0.530	1098.0	1189.5	54.7

Tabla A.8. Continuación.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
0.3993	702.02	0.561	1095.7	1186.5	61.7
0.4995	707.80	0.566	1091.8	1185.2	70.5
0.5998	715.01	0.539	1089.4	1178.5	73.9
0.7010	724.23	0.482	1087.6	1167.3	72.8
0.8080	737.11	0.374	1089.0	1143.9	60.3
0.9000	752.21	0.221	1091.6	1115.7	41.3
1.0000	775.05	0.000	1101.0	1064.4	0.0
308.15 K					
0.0000	690.61	0.000	1126.9	1140.2	0.0
0.1008	692.59	0.304	1116.2	1158.8	28.2
0.2161	696.24	0.441	1113.0	1159.4	39.6
0.2997	699.47	0.508	1108.4	1163.8	52.0
0.3993	704.20	0.538	1106.0	1160.9	58.6
0.4995	709.99	0.545	1102.0	1159.8	67.0
0.5998	717.22	0.518	1099.4	1153.6	70.3
0.7010	726.44	0.466	1097.0	1143.9	70.2
0.8080	739.32	0.364	1098.5	1120.9	57.3
0.9000	754.41	0.215	1100.7	1094.2	39.3
1.0000	777.24	0.000	1109.4	1045.4	0.0
305.65 K					
0.0000	692.62	0.000	1137.2	1116.4	0.0
0.1008	694.69	0.286	1126.6	1134.2	26.9
0.2161	698.36	0.421	1123.2	1135.0	37.9
0.2997	701.60	0.487	1118.8	1138.8	49.2
0.3993	706.34	0.517	1116.1	1136.5	55.9
0.4995	712.14	0.526	1112.2	1135.2	63.6
0.5998	719.41	0.498	1109.5	1129.2	66.5
0.7010	728.63	0.451	1106.4	1121.1	67.5
0.8080	741.50	0.354	1108.0	1098.6	54.5
0.9000	756.59	0.210	1109.7	1073.3	37.4
1.0000	779.40	0.000	1117.8	1026.9	0.0
303.15 K					
0.0000	694.67	0.000	1147.5	1093.2	0.0
0.1008	696.80	0.270	1137.0	1110.1	25.4
0.2161	700.51	0.399	1133.5	1111.0	36.0
0.2997	703.77	0.464	1129.3	1114.2	46.3
0.3993	708.51	0.497	1126.3	1112.6	53.1
0.4995	714.33	0.507	1122.4	1111.3	60.2
0.5998	721.61	0.482	1119.5	1105.8	63.2
0.7010	730.84	0.436	1115.8	1099.1	65.1
0.8080	743.69	0.346	1117.4	1076.9	51.9
0.9000	758.79	0.205	1118.8	1052.9	35.7
1.0000	781.59	0.000	1126.2	1008.8	0.0
300.65 K					
0.0000	696.68	0.000	1157.8	1070.8	0.0
0.1008	698.89	0.253	1147.4	1086.8	24.0

Tabla A.8. Continuación.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
0.2161	702.62	0.380	1143.9	1087.7	34.1
0.2997	705.88	0.446	1139.7	1090.7	43.8
0.3993	710.64	0.478	1136.4	1089.6	50.7
0.4995	716.47	0.489	1132.5	1088.2	57.2
0.5998	723.77	0.465	1129.5	1083.0	60.0
0.7010	733.00	0.422	1125.2	1077.6	62.6
0.8080	745.86	0.336	1126.9	1055.8	49.3
0.9000	760.95	0.199	1127.9	1033.1	34.0
1.0000	783.73	0.000	1134.6	991.2	0.0
298.15 K					
0.0000	698.70	0.000	1168.2	1048.8	0.0
0.1008	700.98	0.239	1157.9	1064.0	22.7
0.2161	704.73	0.363	1154.3	1064.9	32.3
0.2997	708.01	0.427	1150.2	1067.7	41.4
0.3993	712.78	0.460	1146.6	1067.1	48.3
0.4995	718.62	0.474	1142.7	1065.6	54.3
0.5998	725.94	0.449	1139.4	1061.1	57.3
0.7010	735.17	0.410	1134.7	1056.5	60.3
0.8080	748.02	0.328	1136.4	1035.1	46.9
0.9000	763.12	0.194	1137.0	1013.6	32.3
1.0000	785.89	0.000	1143.1	973.8	0.0
295.65 K					
0.0000	700.72	0.000	1178.7	1027.2	0.0
0.1008	703.04	0.229	1168.6	1041.6	21.5
0.2161	706.82	0.348	1164.9	1042.7	30.7
0.2997	710.12	0.411	1160.7	1045.2	39.1
0.3993	714.89	0.446	1157.0	1044.9	45.8
0.4995	720.75	0.458	1153.1	1043.5	51.5
0.5998	728.08	0.436	1149.5	1039.5	54.5
0.7010	737.33	0.398	1144.1	1036.1	58.2
0.8080	750.16	0.322	1146.1	1014.9	44.5
0.9000	765.27	0.190	1146.1	994.7	30.8
1.0000	788.03	0.000	1151.6	956.9	0.0
293.15 K					
0.0000	702.73	0.000	1189.3	1006.1	0.0
0.1008	705.11	0.214	1179.4	1019.5	20.1
0.2161	708.92	0.331	1175.5	1020.8	29.1
0.2997	712.22	0.395	1171.5	1023.0	36.8
0.3993	717.01	0.430	1167.7	1022.9	43.2
0.4995	722.88	0.443	1163.6	1021.8	48.7
0.5998	730.23	0.420	1159.9	1017.9	51.5
0.7010	739.47	0.386	1153.8	1015.8	56.0
0.8080	752.31	0.313	1155.8	995.0	42.3
0.9000	767.41	0.185	1155.4	976.2	29.5

Tabla A.8. Continuación.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
1.0000	790.16	0.000	1160.3	940.0	0.0
290.65 K					
0.0000	704.74	0.000	1200.0	985.4	0.0
0.1008	707.16	0.206	1190.4	997.9	18.8
0.2161	711.00	0.318	1186.2	999.6	27.6
0.2997	714.31	0.381	1182.3	1001.4	34.6
0.3993	719.11	0.417	1178.3	1001.6	41.0
0.4995	725.00	0.430	1174.1	1000.6	46.2
0.5998	732.35	0.410	1170.2	997.2	49.0
0.7010	741.60	0.379	1163.4	996.2	54.3
0.8080	754.43	0.309	1165.6	975.6	40.3
0.9000	769.54	0.183	1164.3	958.6	29.0
1.0000	792.31	0.000	1169.1	923.4	0.0
288.15 K					
0.0000	706.75	0.000	1211.0	964.9	0.0
0.1008	709.17	0.205	1201.6	976.6	17.6
0.2161	713.02	0.317	1197.1	978.7	26.4
0.2997	716.35	0.377	1193.5	979.9	32.5
0.3993	721.16	0.412	1189.0	980.8	39.1
0.4995	727.05	0.426	1184.8	979.8	43.9
0.5998	734.42	0.405	1180.5	977.0	47.0
0.7010	743.69	0.374	1172.9	977.4	53.3
0.8080	756.51	0.308	1175.6	956.5	38.5
0.9000	771.62	0.185	1173.1	941.8	29.2
1.0000	794.44	0.000	1178.2	906.8	0.0

Tabla A.9. Influencia de la composición sobre los índices de refracción, las variaciones de índices de refracción de la mezcla binaria x_1 etanol (1) – x_2 *n*-nonano (2) en el intervalo de temperaturas (318.15- 288.15) K.

x_1	n_D				δn_D				
	T / K	318.15	308.15	298.15	288.15	318.15	308.15	298.15	288.15
0.0000		1.39368	1.39718	1.40298	1.40749	0.00000	0.00000	0.00000	0.00000
0.0937		1.39053	1.39648	1.40253	1.40598	0.00088	0.00325	0.00364	0.00263
0.1799		1.38941	1.39505	1.39983	1.40466	0.00346	0.00545	0.00472	0.00512
0.2924		1.38702	1.39203	1.39682	1.40167	0.00591	0.00718	0.00663	0.00710
0.3909		1.38409	1.38970	1.39422	1.39904	0.00721	0.00900	0.00833	0.00882
0.4886		1.38128	1.38613	1.39119	1.39597	0.00860	0.00955	0.00957	0.01006
0.5730		1.37867	1.38390	1.38803	1.39272	0.00962	0.01088	0.01010	0.01054
0.6816		1.37342	1.37846	1.38311	1.38784	0.00904	0.01002	0.00993	0.01046
0.7858		1.36786	1.37293	1.37744	1.38207	0.00795	0.00888	0.00881	0.00929
0.8932		1.36019	1.36539	1.36931	1.37389	0.00490	0.00587	0.00538	0.00585
1.0000		1.35070	1.35502	1.35926	1.36332	0.00000	0.00000	0.00000	0.00000

A. Tablas de Propiedad.

Tabla A.10. Influencia de la composición sobre la densidad, el volumen de exceso, la velocidad del sonido, la compresibilidad isoentrópica, la variación de la compresibilidad isoentrópica de mezcla para x_1 etanol (1) – x_2 *n*-nonano (2) en el intervalo de temperaturas (323.15-288.15) K.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
318.15 K					
0.0000	698.31	0.000	1123.9	1133.7	0.0
0.0937	698.32	0.561	1118.6	1144.4	9.9
0.1799	700.63	0.545	1109.2	1160.1	25.0
0.2924	703.51	0.657	1102.1	1170.2	34.1
0.3909	706.93	0.675	1097.0	1175.4	38.5
0.4886	710.83	0.722	1091.1	1181.8	44.0
0.5730	715.52	0.656	1087.3	1182.1	43.7
0.6816	722.32	0.667	1080.2	1186.5	47.3
0.7858	731.70	0.573	1074.7	1183.3	43.1
0.8932	745.55	0.404	1070.1	1171.3	30.2
1.0000	768.48	0.000	1075.9	1124.1	0.0
315.65 K					
0.0000	700.21	0.000	1133.9	1110.8	0.0
0.0937	700.26	0.551	1128.5	1121.3	11.2
0.1799	702.61	0.527	1119.2	1136.3	26.8
0.2924	705.54	0.634	1112.2	1145.8	37.1
0.3909	708.99	0.651	1107.1	1150.7	42.7
0.4886	712.89	0.699	1101.1	1157.0	49.6
0.5730	717.61	0.634	1097.2	1157.5	50.8
0.6816	724.43	0.648	1089.9	1162.1	56.1
0.7858	733.82	0.560	1084.1	1159.5	54.3
0.8932	747.68	0.397	1079.2	1148.4	44.0
1.0000	770.63	0.000	1084.3	1103.6	0.0
313.15 K					
0.0000	702.20	0.000	1143.8	1088.6	0.0
0.0937	702.31	0.534	1138.6	1098.3	10.2
0.1799	704.69	0.508	1129.2	1112.9	25.2
0.2924	707.65	0.611	1122.3	1121.9	34.8
0.3909	711.12	0.627	1117.0	1127.0	40.3
0.4886	715.05	0.676	1111.0	1133.0	46.8
0.5730	719.78	0.614	1107.0	1133.7	47.9
0.6816	726.62	0.630	1099.5	1138.4	53.2
0.7858	736.01	0.547	1093.3	1136.7	51.9
0.8932	749.90	0.389	1088.1	1126.4	42.2
1.0000	772.85	0.000	1092.7	1083.7	0.0
310.65 K					
0.0000	704.16	0.000	1153.6	1067.2	0.0
0.0937	704.32	0.521	1148.4	1076.6	9.7
0.1799	706.75	0.486	1139.2	1090.2	23.6

Tabla A.10. Continuación.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
0.2924	709.76	0.582	1132.4	1098.8	32.5
0.3909	713.25	0.600	1127.1	1103.6	37.6
0.4886	717.19	0.651	1120.8	1109.9	44.1
0.5730	721.94	0.590	1116.9	1110.5	44.9
0.6816	728.79	0.612	1109.0	1115.7	50.4
0.7858	738.19	0.533	1102.6	1114.3	49.4
0.8932	752.09	0.382	1096.9	1105.1	40.4
1.0000	775.05	0.000	1101.0	1064.4	0.0
308.15 K					
0.0000	706.13	0.000	1163.6	1046.0	0.0
0.0937	706.33	0.511	1158.4	1055.0	9.1
0.1799	708.80	0.470	1149.4	1068.0	22.2
0.2924	711.83	0.564	1142.4	1076.5	30.7
0.3909	715.34	0.580	1137.2	1081.0	35.3
0.4886	719.30	0.632	1130.8	1087.2	41.5
0.5730	724.07	0.572	1126.6	1088.0	42.4
0.6816	730.96	0.593	1118.6	1093.3	47.8
0.7858	740.37	0.520	1112.0	1092.2	46.8
0.8932	754.26	0.375	1105.9	1084.1	38.7
1.0000	777.24	0.000	1109.4	1045.4	0.0
305.65 K					
0.0000	708.07	0.000	1173.6	1025.4	0.0
0.0937	708.32	0.498	1168.4	1034.1	8.6
0.1799	710.83	0.449	1159.5	1046.4	20.8
0.2924	713.89	0.542	1152.4	1054.8	28.9
0.3909	717.42	0.558	1147.2	1059.2	33.2
0.4886	721.39	0.612	1140.7	1065.3	39.1
0.5730	726.18	0.553	1136.5	1066.2	39.9
0.6816	733.08	0.578	1128.2	1071.7	45.3
0.7858	742.51	0.508	1121.3	1071.2	44.6
0.8932	756.42	0.368	1114.8	1063.8	37.0
1.0000	779.40	0.000	1117.8	1026.9	0.0
303.15 K					
0.0000	710.05	0.000	1183.6	1005.2	0.0
0.0937	710.33	0.490	1178.5	1013.6	8.0
0.1799	712.88	0.435	1169.5	1025.5	19.6
0.2924	715.96	0.525	1162.5	1033.5	27.2
0.3909	719.53	0.538	1157.2	1037.8	31.2
0.4886	723.51	0.594	1150.7	1043.8	36.8
0.5730	728.32	0.536	1146.3	1044.9	37.6
0.6816	735.23	0.564	1137.8	1050.7	43.1
0.7858	744.67	0.498	1130.6	1050.5	42.5
0.8932	758.59	0.362	1123.8	1043.8	35.5

A. Tablas de Propiedad.

Tabla A.10. Continuación.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
1.0000	781.59	0.000	1126.2	1008.7	0.0
300.65 K					
0.0000	712.00	0.000	1193.6	985.8	0.0
0.0937	712.30	0.483	1188.5	993.8	7.5
0.1799	714.89	0.421	1179.7	1005.2	18.4
0.2924	717.99	0.509	1172.7	1012.8	25.4
0.3909	721.59	0.520	1167.3	1017.0	29.1
0.4886	725.57	0.578	1160.6	1023.2	34.7
0.5730	730.41	0.520	1156.1	1024.3	35.4
0.6816	737.33	0.551	1147.4	1030.2	40.8
0.7858	746.79	0.487	1140.0	1030.4	40.4
0.8932	760.72	0.356	1132.7	1024.5	34.0
1.0000	783.73	0.000	1134.6	991.1	0.0
298.15 K					
0.0000	713.96	0.000	1203.7	966.7	0.0
0.0937	714.29	0.476	1198.7	974.4	7.0
0.1799	716.91	0.408	1189.8	985.3	17.4
0.2924	720.04	0.495	1182.8	992.7	23.9
0.3909	723.66	0.504	1177.4	996.9	27.4
0.4886	727.66	0.562	1170.6	1002.8	32.7
0.5730	732.50	0.507	1166.1	1004.0	33.3
0.6816	739.43	0.540	1157.0	1010.2	38.7
0.7858	748.91	0.478	1149.3	1010.8	38.5
0.8932	762.86	0.351	1141.7	1005.7	32.6
1.0000	785.89	0.000	1143.1	973.8	0.0
295.65 K					
0.0000	715.90	0.000	1214.0	947.8	0.0
0.0937	716.24	0.472	1208.8	955.5	6.8
0.1799	718.91	0.396	1200.1	965.8	16.4
0.2924	722.06	0.481	1193.0	973.0	22.6
0.3909	725.70	0.489	1187.6	977.0	25.7
0.4886	729.72	0.548	1180.7	983.1	30.9
0.5730	734.57	0.493	1176.0	984.3	31.4
0.6816	741.52	0.528	1166.8	990.6	36.7
0.7858	751.01	0.470	1158.8	991.5	36.7
0.8932	764.97	0.347	1150.8	987.1	31.2
1.0000	788.03	0.000	1151.6	956.8	0.0
293.15 K					
0.0000	717.84	0.000	1224.3	929.3	0.0
0.0937	718.22	0.461	1219.2	936.6	6.3
0.1799	720.91	0.383	1210.5	946.6	15.3
0.2924	724.09	0.465	1203.4	953.6	21.1

Tabla A.10. Continuación.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
0.3909	727.73	0.475	1197.9	957.6	24.1
0.4886	731.77	0.534	1190.9	963.6	29.0
0.5730	736.65	0.479	1186.2	964.8	29.3
0.6916	743.60	0.517	1176.6	971.4	34.8
0.7858	753.10	0.462	1168.4	972.6	34.9
0.8932	766.94	0.355	1160.1	968.9	30.1
1.0000	790.16	0.000	1160.3	940.0	0.0
290.65 K					
0.0000	719.79	0.000	1234.9	911.0	0.0
0.0937	720.18	0.457	1229.6	918.4	6.2
0.1799	722.90	0.375	1221.0	927.9	14.7
0.2924	726.10	0.454	1213.8	934.8	20.2
0.3909	729.77	0.463	1208.2	938.7	22.8
0.4886	733.82	0.522	1201.1	944.6	27.5
0.5730	738.71	0.469	1196.3	945.9	27.8
0.6816	745.68	0.508	1186.6	952.5	33.1
0.7858	755.19	0.457	1178.1	954.1	33.4
0.8932	768.91	0.365	1169.4	951.1	29.0
1.0000	792.31	0.000	1169.1	923.4	0.0
288.15 K					
0.0000	721.68	0.000	1245.4	893.4	0.0
0.0937	722.15	0.439	1240.3	900.2	5.5
0.1799	724.85	0.365	1231.5	909.7	13.9
0.2924	728.11	0.434	1224.4	916.1	18.8
0.3909	731.76	0.451	1218.6	920.3	21.6
0.4886	735.87	0.502	1211.6	925.7	25.8
0.5730	740.71	0.460	1206.4	927.6	26.5
0.6816	747.76	0.494	1196.8	933.7	31.2
0.7858	757.23	0.452	1187.7	936.2	32.3
0.8932	771.23	0.339	1178.7	933.3	28.0
1.0000	794.44	0.000	1178.2	906.8	0.0

Tabla A.11. Influencia de la composición sobre los índices de refracción, las variaciones de índices de refracción de la mezcla binaria x_1 *n*-hexano (1) – x_2 *n*-heptano (2) en el intervalo de temperaturas (318.15- 288.15) K.

x_1	n_D				δn_D				
	T / K	318.15	308.15	298.15	288.15	318.15	308.15	298.15	288.15
0.0000		1.37952	1.37952	1.38491	1.39027	0.00000	0.00000	0.00000	0.00000
0.0761		1.37516	1.37914	1.38477	1.38962	-0.00291	0.00061	0.00083	0.00030
0.1651		1.37307	1.37818	1.38386	1.38877	-0.00331	0.00081	0.00106	0.00056
0.2081		1.37218	1.37769	1.38343	1.38823	-0.00339	0.00088	0.00118	0.00056

Tabla A.11. Continuación

x_1	n_D				δn_D			
	318.15	308.15	298.15	288.15	318.15	308.15	298.15	288.15
T / K								
0.2537	1.37126	1.37719	1.38293	1.38775	-0.00344	0.00097	0.00127	0.00065
0.2973	1.37065	1.37669	1.38241	1.38718	-0.00322	0.00104	0.00131	0.00063
0.3485	1.37009	1.37609	1.38177	1.38659	-0.00281	0.00110	0.00132	0.00068
0.3951	1.36966	1.37553	1.38119	1.38602	-0.00235	0.00115	0.00134	0.00069
0.4487	1.36892	1.37483	1.38050	1.38539	-0.00208	0.00114	0.00133	0.00073
0.5008	1.36817	1.37414	1.37982	1.38474	-0.00183	0.00113	0.00132	0.00073
0.5450	1.36765	1.37354	1.37924	1.38418	-0.00151	0.00111	0.00131	0.00072
0.6021	1.36686	1.37275	1.37845	1.38346	-0.00122	0.00106	0.00125	0.00072
0.6419	1.36622	1.37217	1.37789	1.38294	-0.00110	0.00099	0.00120	0.00069
0.7227	1.36509	1.37101	1.37668	1.38187	-0.00070	0.00088	0.00102	0.00063
0.7675	1.36442	1.37032	1.37599	1.38124	-0.00052	0.00078	0.00090	0.00056
0.8756	1.36251	1.36858	1.37425	1.37970	-0.00037	0.00044	0.00055	0.00037
1.0000	1.36052	1.36652	1.37211	1.37777	0.00000	0.00000	0.00000	0.00000

Tabla A.12. Influencia de la composición sobre la densidad, el volumen de exceso, la velocidad del sonido, la compresibilidad isoentrópica, la variación de la compresibilidad isoentrópica de mezcla para x_1 *n*-hexano (1) – x_2 *n*-heptano (2) en el intervalo (323.15-288.15) K.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
318.15 K					
0.0000	662.43	0.000	1043.0	1387.7	0.0
0.1170	660.49	-0.188	1039.6	1400.8	-16.3
0.2414	658.41	-0.399	1035.0	1417.8	-30.5
0.3535	656.32	-0.551	1030.3	1435.4	-41.1
0.4625	653.90	-0.626	1025.2	1455.1	-48.7
0.5670	651.49	-0.692	1019.6	1476.4	-53.7
0.6584	649.02	-0.682	1013.9	1498.7	-54.3
0.7425	646.47	-0.623	1008.6	1520.6	-53.5
0.8415	643.06	-0.480	1001.0	1552.1	-46.9
0.9188	640.00	-0.293	994.3	1580.5	-37.9
1.0000	636.28	0.000	979.3	1638.8	0.0
315.65 K					
0.0000	664.55	0.000	1053.8	1355.1	0.0
0.1170	662.60	-0.181	1050.4	1368.0	-15.4
0.2414	660.53	-0.387	1045.7	1384.6	-28.8
0.3535	658.45	-0.540	1041.0	1401.5	-39.0
0.4625	656.05	-0.614	1036.0	1420.1	-46.7
0.5670	653.67	-0.682	1030.4	1440.8	-51.2
0.6584	651.20	-0.671	1024.8	1462.3	-51.7
0.7425	648.66	-0.611	1019.4	1483.6	-50.8
0.8415	645.29	-0.473	1012.0	1513.2	-45.1

Tabla A.13. Continuación.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.9188	642.24	-0.286	1005.2	1541.1	-35.9
1.0000	638.55	0.000	990.4	1596.6	0.0
313.15 K					
0.0000	666.72	0.000	1064.3	1324.1	0.0
0.1170	664.79	-0.179	1060.9	1336.4	-14.7
0.2414	662.74	-0.384	1056.4	1352.2	-27.7
0.3535	660.66	-0.531	1051.6	1368.7	-37.1
0.4625	658.26	-0.603	1046.7	1386.6	-44.3
0.5670	655.90	-0.670	1041.1	1406.7	-48.3
0.6584	653.47	-0.661	1035.6	1426.9	-49.2
0.7425	650.94	-0.602	1030.1	1447.8	-47.7
0.8415	647.58	-0.464	1023.0	1475.7	-42.7
0.9188	644.56	-0.281	1016.1	1502.7	-33.6
1.0000	640.90	0.000	1001.7	1555.0	0.0
310.65 K					
0.0000	668.89	0.000	1075.0	1293.7	0.0
0.1170	666.96	-0.176	1071.5	1305.9	-13.6
0.2414	664.91	-0.375	1066.9	1321.2	-25.8
0.3535	662.87	-0.523	1062.3	1336.9	-34.8
0.4625	660.47	-0.591	1057.2	1354.6	-41.2
0.5670	658.14	-0.661	1051.9	1373.2	-45.6
0.6584	655.71	-0.651	1046.4	1392.7	-46.3
0.7425	653.21	-0.593	1041.0	1412.8	-44.8
0.8415	649.86	-0.455	1033.7	1440.2	-39.2
0.9188	646.86	-0.278	1027.2	1465.0	-31.5
1.0000	643.23	0.000	1013.2	1514.4	0.0
308.15 K					
0.0000	671.03	0.000	1085.6	1264.5	0.0
0.1170	669.13	-0.175	1082.2	1276.1	-13.1
0.2414	667.08	-0.370	1077.6	1290.8	-24.6
0.3535	665.05	-0.517	1073.0	1305.9	-33.2
0.4625	662.67	-0.582	1068.0	1323.0	-39.1
0.5670	660.35	-0.650	1062.7	1340.9	-43.3
0.6584	657.94	-0.639	1057.3	1359.6	-43.9
0.7425	655.45	-0.583	1051.9	1378.9	-42.3
0.8415	652.13	-0.447	1044.7	1404.9	-37.2
0.9188	649.15	-0.272	1038.4	1428.5	-29.9
1.0000	645.55	0.000	1024.6	1475.6	0.0
305.65 K					
0.0000	673.16	0.000	1096.3	1236.0	0.0
0.1170	671.27	-0.173	1092.8	1247.5	-12.2
0.2414	669.23	-0.364	1088.4	1261.5	-23.5
0.3535	667.21	-0.509	1083.7	1276.2	-31.6
0.4625	664.84	-0.573	1078.8	1292.4	-37.5
0.5670	662.54	-0.640	1073.5	1309.8	-41.4

A. Tablas de Propiedad.

Tabla A.12. Continuación.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
0.6584	660.14	-0.631	1068.2	1327.7	-42.0
0.7425	657.67	-0.574	1062.8	1346.2	-40.5
0.8415	654.37	-0.441	1055.8	1370.9	-35.9
0.9188	651.40	-0.267	1049.4	1393.9	-28.7
1.0000	647.83	0.000	1035.7	1439.0	0.0
303.15 K					
0.0000	675.32	0.000	1107.0	1208.4	0.0
0.1170	673.43	-0.169	1103.4	1219.6	-11.5
0.2414	671.41	-0.357	1099.0	1233.1	-22.2
0.3535	669.42	-0.503	1094.5	1247.0	-30.1
0.4625	667.05	-0.564	1089.7	1262.5	-35.9
0.5670	664.76	-0.630	1084.4	1279.3	-39.3
0.6584	662.38	-0.622	1079.1	1296.5	-39.9
0.7425	659.92	-0.566	1073.8	1314.3	-38.5
0.8415	656.63	-0.431	1066.8	1338.3	-33.7
0.9188	653.69	-0.261	1060.6	1359.9	-27.1
1.0000	650.15	0.000	1047.1	1402.8	0.0
300.65 K					
0.0000	677.44	0.000	1117.6	1181.8	0.0
0.1170	675.57	-0.167	1114.0	1192.8	-10.9
0.2414	673.55	-0.352	1109.8	1205.5	-21.3
0.3535	671.57	-0.496	1105.2	1219.0	-28.7
0.4625	669.20	-0.552	1100.4	1234.0	-34.1
0.5670	666.94	-0.622	1095.2	1250.1	-37.4
0.6584	664.58	-0.614	1090.0	1266.5	-38.1
0.7425	662.13	-0.558	1084.7	1283.7	-36.6
0.8415	658.85	-0.424	1077.8	1306.6	-32.2
0.9188	655.94	-0.258	1071.7	1327.3	-25.8
1.0000	652.42	0.000	1058.4	1368.3	0.0
298.15 K					
0.0000	679.57	0.000	1128.4	1155.7	0.0
0.1170	677.71	-0.166	1124.7	1166.4	-10.2
0.2414	675.70	-0.347	1120.5	1178.7	-20.2
0.3535	673.74	-0.490	1116.0	1191.6	-27.3
0.4625	671.37	-0.543	1111.3	1206.0	-32.4
0.5670	669.14	-0.615	1106.1	1221.5	-35.6
0.6584	666.79	-0.607	1101.0	1237.3	-36.2
0.7425	664.36	-0.552	1095.7	1253.7	-34.8
0.8415	661.09	-0.418	1088.9	1275.7	-30.5
0.9188	658.20	-0.254	1082.9	1295.6	-24.5
1.0000	654.70	0.000	1069.8	1334.6	0.0
295.65 K					
0.0000	681.68	0.000	1139.2	1130.4	0.0
0.1170	679.84	-0.165	1135.6	1140.7	-9.8

Tabla A.12. Continuación.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
0.2414	677.82	-0.340	1131.4	1152.6	-19.1
0.3535	675.89	-0.485	1126.9	1165.0	-25.9
0.4625	673.52	-0.535	1122.3	1178.8	-30.7
0.5670	671.32	-0.607	1117.1	1193.8	-33.7
0.6584	668.98	-0.599	1112.0	1208.8	-34.4
0.7425	666.57	-0.547	1106.9	1224.5	-33.0
0.8415	663.31	-0.411	1100.1	1245.8	-28.7
0.9188	660.43	-0.249	1094.1	1264.9	-22.9
1.0000	656.96	0.000	1081.4	1301.6	0.0
293.15 K					
0.0000	683.78	0.000	1150.2	1105.4	0.0
0.1170	681.96	-0.164	1146.5	1115.5	-9.2
0.2414	679.96	-0.338	1142.4	1126.8	-18.2
0.3535	678.04	-0.482	1138.0	1138.8	-24.7
0.4625	675.67	-0.528	1133.4	1152.1	-29.2
0.5670	673.49	-0.601	1128.2	1166.5	-32.0
0.6584	671.18	-0.595	1123.3	1180.9	-32.6
0.7425	668.77	-0.540	1118.1	1196.2	-31.1
0.8415	665.51	-0.405	1111.4	1216.4	-27.1
0.9188	662.66	-0.247	1105.5	1234.8	-21.4
1.0000	659.21	0.000	1093.1	1269.6	0.0
290.65 K					
0.0000	685.89	0.000	1161.3	1081.1	0.0
0.1170	684.07	-0.161	1157.6	1090.9	-8.3
0.2414	682.07	-0.331	1153.5	1102.0	-16.5
0.3535	680.18	-0.477	1149.1	1113.4	-22.4
0.4625	677.81	-0.518	1144.6	1126.2	-26.5
0.5670	675.66	-0.596	1139.4	1139.9	-28.9
0.6584	673.36	-0.588	1134.5	1153.8	-29.2
0.7425	670.95	-0.531	1129.3	1168.6	-27.4
0.8415	667.72	-0.400	1122.8	1188.0	-23.4
0.9188	664.89	-0.245	1116.8	1205.9	-17.5
1.0000	661.45	0.000	1106.0	1235.9	0.0
288.15 K					
0.0000	687.95	0.000	1172.3	1057.7	0.0
0.1170	686.13	-0.156	1168.5	1067.4	-7.5
0.2414	684.15	-0.327	1164.5	1077.8	-15.4
0.3535	682.26	-0.468	1160.2	1088.9	-20.8
0.4625	679.93	-0.514	1155.6	1101.3	-24.5
0.5670	677.77	-0.587	1150.6	1114.4	-26.8
0.6584	675.47	-0.579	1145.7	1127.8	-26.8
0.7425	673.09	-0.526	1140.6	1142.0	-25.0
0.8415	669.88	-0.395	1134.2	1160.5	-21.0
0.9188	667.04	-0.238	1127.9	1178.4	-14.6
1.0000	663.64	0.000	1118.3	1204.9	0.0

A. Tablas de Propiedad.

Tabla A.13 Influencia de la composición sobre los índices de refracción, las variaciones de índices de refracción de la mezcla binaria x_1 *n*-hexano (1) – x_2 *n*-octano (2) en el intervalo de temperaturas (318.15- 288.15) K.

x_1	n_D				δn_D				
	T / K	318.15	308.15	298.15	288.15	318.15	308.15	298.15	288.15
0.0000	1.38489	1.39058	1.39551	1.40040	0.00000	0.00000	0.00000	0.00000	0.00000
0.0850	1.38428	1.38897	1.39455	1.39872	0.00146	0.00043	0.00103	0.00024	0.00024
0.1632	1.38341	1.38770	1.39338	1.39731	0.00250	0.00105	0.00169	0.00060	0.00060
0.2007	1.38273	1.38703	1.39277	1.39671	0.00273	0.00128	0.00196	0.00085	0.00085
0.2625	1.38160	1.38596	1.39165	1.39562	0.00311	0.00170	0.00228	0.00116	0.00116
0.2916	1.38107	1.38535	1.39117	1.39515	0.00329	0.00179	0.00248	0.00135	0.00135
0.3446	1.37998	1.38423	1.39016	1.39416	0.00349	0.00194	0.00271	0.00156	0.00156
0.3812	1.37917	1.38345	1.38944	1.39337	0.00357	0.00204	0.00285	0.00160	0.00160
0.4472	1.37768	1.38187	1.38794	1.39189	0.00369	0.00205	0.00290	0.00161	0.00161
0.4906	1.37657	1.38079	1.38691	1.39086	0.00364	0.00201	0.00288	0.00156	0.00156
0.5476	1.37515	1.37938	1.38548	1.38953	0.00360	0.00198	0.00278	0.00152	0.00152
0.6010	1.37374	1.37802	1.38414	1.38825	0.00350	0.00190	0.00269	0.00145	0.00145
0.6465	1.37253	1.37688	1.38301	1.38710	0.00340	0.00186	0.00263	0.00133	0.00133
0.6955	1.37106	1.37562	1.38172	1.38576	0.00312	0.00177	0.00248	0.00110	0.00110
0.7540	1.36939	1.37391	1.38015	1.38415	0.00288	0.00147	0.00228	0.00081	0.00081
0.8751	1.36575	1.37051	1.37681	1.38092	0.00219	0.00099	0.00178	0.00032	0.00032
1.0000	1.36052	1.36652	1.37211	1.37777	0.00000	0.00000	0.00000	0.00000	0.00000

Tabla A.14. Influencia de la composición sobre la densidad, el volumen de exceso, la velocidad del sonido, la compresibilidad isoentrópica, la variación de la compresibilidad isoentrópica de mezcla para x_1 *n*-hexano (1) – x_2 *n*-octano (2) en el intervalo de temperaturas (323.15-288.15) K.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
318.15 K					
0.0000	682.48	0.000	1085.4	1243.7	0.0
0.0850	679.21	0.010	1081.7	1258.4	-18.9
0.1632	676.25	-0.017	1071.8	1287.3	-20.9
0.2625	672.64	-0.115	1066.1	1308.0	-39.4
0.4472	664.74	-0.125	1028.9	1420.9	0.5
0.5476	660.24	-0.141	1038.1	1405.5	-54.6
0.6465	655.51	-0.135	1027.7	1444.4	-54.8
0.7540	650.10	-0.121	1015.9	1490.6	-51.0
0.8751	643.58	-0.080	1001.5	1549.3	-40.2
1.0000	636.28	0.000	979.3	1638.8	0.0
315.65 K					
0.0000	684.46	0.000	1095.8	1216.7	0.0

Tabla A.14. Continuación.

x_1	ρ	V^E	u	K_S	δK_S
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
0.0850	681.21	0.011	1091.9	1231.2	-17.8
0.1632	678.28	-0.017	1082.2	1258.9	-19.8
0.2625	674.69	-0.114	1076.6	1278.8	-37.7
0.4472	666.84	-0.122	1039.7	1387.3	0.7
0.5476	662.35	-0.136	1048.8	1372.7	-52.1
0.6465	657.65	-0.130	1038.4	1410.1	-52.2
0.7540	652.28	-0.118	1026.6	1454.6	-48.6
0.8751	645.80	-0.079	1012.5	1510.5	-38.6
1.0000	638.55	0.000	990.4	1596.6	0.0
313.15 K					
0.0000	686.53	0.000	1106.2	1190.3	0.0
0.0850	683.29	0.012	1102.1	1204.9	-16.4
0.1632	680.37	-0.014	1092.4	1231.7	-18.2
0.2625	676.80	-0.107	1086.9	1250.7	-35.4
0.4472	669.01	-0.118	1050.4	1354.7	1.3
0.5476	664.55	-0.130	1059.1	1341.5	-48.6
0.6465	659.88	-0.125	1048.9	1377.4	-48.8
0.7540	654.54	-0.113	1037.4	1419.5	-45.8
0.8751	648.10	-0.074	1023.4	1473.3	-36.2
1.0000	640.90	0.000	1001.7	1555.0	0.0
310.65 K					
0.0000	688.57	0.000	1116.5	1165.0	0.0
0.0850	685.36	0.012	1112.3	1179.4	-15.3
0.1632	682.47	-0.016	1102.8	1204.9	-17.1
0.2625	678.89	-0.103	1097.2	1223.5	-33.2
0.4472	671.17	-0.118	1061.2	1323.1	1.8
0.5476	666.72	-0.125	1069.7	1310.8	-45.5
0.6465	662.08	-0.121	1059.6	1345.4	-45.5
0.7540	656.78	-0.109	1048.0	1386.3	-42.2
0.8751	650.38	-0.072	1034.4	1437.0	-33.7
1.0000	643.23	0.000	1013.2	1514.4	0.0
308.15 K					
0.0000	690.61	0.000	1126.9	1140.2	0.0
0.0850	687.41	0.014	1122.5	1154.5	-14.3
0.1632	684.53	-0.012	1113.0	1179.3	-15.7
0.2625	681.00	-0.103	1107.7	1196.8	-31.5
0.4472	673.30	-0.110	1072.1	1292.2	2.0
0.5476	668.88	-0.118	1080.4	1280.8	-43.1
0.6465	664.28	-0.116	1070.3	1314.1	-42.9
0.7540	659.00	-0.102	1058.9	1353.2	-39.9
0.8751	652.64	-0.068	1045.4	1402.1	-31.5
1.0000	645.55	0.000	1024.6	1475.6	0.0
305.65 K					
0.0000	692.62	0.000	1137.2	1116.4	0.0

Tabla A.14. Continuación.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
0.0850	689.45	0.012	1132.8	1130.4	-13.5
0.1632	686.59	-0.013	1123.4	1154.1	-14.9
0.2625	682.36	0.062	1118.1	1172.3	-28.8
0.4472	675.43	-0.110	1083.0	1262.3	1.5
0.5476	671.02	-0.115	1091.0	1252.0	-41.1
0.6465	666.45	-0.114	1081.0	1283.9	-41.1
0.7540	661.19	-0.099	1069.7	1321.6	-38.0
0.8751	654.89	-0.069	1056.3	1368.4	-30.3
1.0000	647.83	0.000	1035.7	1439.0	0.0
303.15 K					
0.0000	694.67	0.000	1147.5	1093.2	0.0
0.0850	691.52	0.012	1143.1	1106.7	-12.8
0.1632	688.68	-0.012	1133.7	1129.7	-14.0
0.2625	684.64	0.024	1128.6	1146.6	-27.9
0.4472	677.57	-0.105	1094.0	1233.2	1.5
0.5476	673.18	-0.108	1101.7	1223.9	-38.8
0.6465	668.65	-0.109	1091.8	1254.6	-38.8
0.7540	663.42	-0.094	1080.7	1290.7	-36.0
0.8751	657.17	-0.066	1067.4	1335.5	-28.6
1.0000	650.15	0.000	1047.1	1402.8	0.0
300.65 K					
0.0000	696.68	0.000	1157.8	1070.8	0.0
0.0850	693.55	0.011	1153.4	1083.9	-12.2
0.1632	690.72	-0.012	1144.2	1105.9	-13.5
0.2625	686.77	0.012	1139.1	1122.2	-26.6
0.4472	679.68	-0.102	1105.1	1204.8	1.0
0.5476	675.31	-0.105	1112.4	1196.7	-37.0
0.6465	670.82	-0.107	1102.6	1226.2	-37.0
0.7540	665.60	-0.090	1091.5	1261.0	-34.1
0.8751	659.41	-0.067	1078.5	1303.9	-27.2
1.0000	652.42	0.000	1058.4	1368.3	0.0
298.15 K					
0.0000	698.70	0.000	1168.2	1048.8	0.0
0.0850	695.60	0.009	1163.7	1061.6	-11.5
0.1632	692.78	-0.011	1154.7	1082.7	-12.7
0.2625	688.93	-0.006	1149.6	1098.4	-25.4
0.4472	681.79	-0.099	1116.4	1176.9	0.3
0.5476	677.44	-0.099	1123.1	1170.3	-35.0
0.6465	673.00	-0.107	1113.5	1198.4	-35.1
0.7540	667.81	-0.088	1102.6	1231.7	-32.6
0.8751	661.64	-0.066	1089.5	1273.2	-25.7
1.0000	654.70	0.000	1069.8	1334.6	0.0
295.65 K					
0.0000	700.72	0.000	1178.7	1027.2	0.0
0.0850	697.63	0.011	1174.2	1039.7	-10.8

Tabla A.14. Continuación.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
0.1632	694.82	-0.008	1165.3	1059.9	-12.1
0.2625	691.15	-0.039	1160.2	1074.8	-24.4
0.4472	683.90	-0.095	1128.3	1148.5	-1.4
0.5476	679.57	-0.094	1133.9	1144.4	-33.1
0.6465	675.15	-0.104	1124.4	1171.6	-33.1
0.7540	669.98	-0.082	1113.6	1203.6	-30.5
0.8751	663.88	-0.066	1100.7	1243.3	-24.1
1.0000	656.96	0.000	1081.4	1301.6	0.0
293.15 K					
0.0000	702.73	0.000	1189.3	1006.1	0.0
0.0850	699.67	0.008	1184.9	1017.9	-10.5
0.1632	696.86	-0.008	1176.3	1037.1	-12.0
0.2625	693.31	-0.060	1171.1	1051.8	-23.5
0.4472	686.01	-0.093	1144.2	1113.4	-10.6
0.5476	681.68	-0.089	1145.0	1119.0	-31.3
0.6465	677.30	-0.101	1135.5	1145.1	-31.4
0.7540	672.15	-0.079	1124.7	1176.0	-28.7
0.8751	666.09	-0.066	1112.1	1213.9	-22.7
1.0000	659.21	0.000	1093.1	1269.6	0.0
290.65 K					
0.0000	704.74	0.000	1200.0	985.4	0.0
0.0850	701.69	0.009	1195.6	996.9	-9.8
0.1632	698.90	-0.006	1187.9	1013.9	-12.3
0.2625	695.46	-0.076	1182.0	1029.1	-22.0
0.4472	688.09	-0.087	1160.0	1080.1	-17.4
0.5476	683.79	-0.084	1156.1	1094.2	-28.4
0.6465	679.44	-0.097	1146.7	1119.3	-28.1
0.7540	674.31	-0.075	1136.0	1149.2	-25.1
0.8751	668.30	-0.065	1123.4	1185.7	-19.0
1.0000	661.45	0.000	1106.0	1235.9	0.0
288.15 K					
0.0000	706.75	0.000	1211.0	964.8	0.0
0.0850	703.64	0.027	1206.2	976.8	-8.4
0.1632	700.87	0.008	1199.4	991.9	-12.1
0.2625	697.53	-0.080	1193.0	1007.3	-20.6
0.4472	690.13	-0.077	1176.2	1047.3	-24.9
0.5476	685.85	-0.075	1167.2	1070.2	-26.1
0.6465	681.52	-0.089	1157.8	1094.6	-25.4
0.7540	676.43	-0.070	1147.4	1122.9	-22.9
0.8751	670.44	-0.060	1134.6	1158.6	-16.3
1.0000	663.64	0.000	1118.3	1204.9	0.0

A. Tablas de Propiedad.

Tabla A.15. Influencia de la composición sobre los índices de refracción, las variaciones de índices de refracción de la mezcla binaria x_1 *n*-hexano (1) – x_2 *n*-nonano (2) en el intervalo de temperaturas (318.15- 288.15) K.

x_1	n_D				δn_D				
	T / K	318.15	308.15	298.15	288.15	318.15	308.15	298.15	288.15
0.0000	1.39304	1.39839	1.40321	1.40783	0.00000	0.00000	0.00000	0.00000	0.00000
0.0752	1.39180	1.39641	1.40167	1.40571	0.00121	0.00042	0.00080	0.00014	0.00014
0.1569	1.39007	1.39452	1.39997	1.40368	0.00213	0.00113	0.00164	0.00057	0.00057
0.2094	1.38905	1.39338	1.39882	1.40260	0.00282	0.00166	0.00212	0.00106	0.00106
0.2410	1.38829	1.39263	1.39829	1.40193	0.00309	0.00192	0.00257	0.00134	0.00134
0.3016	1.38678	1.39141	1.39695	1.40063	0.00355	0.00263	0.00312	0.00186	0.00186
0.3520	1.38551	1.39020	1.39558	1.39945	0.00392	0.00303	0.00332	0.00220	0.00220
0.3806	1.38470	1.38945	1.39491	1.39879	0.00404	0.00319	0.00354	0.00240	0.00240
0.4375	1.38303	1.38783	1.39343	1.39747	0.00422	0.00338	0.00383	0.00279	0.00279
0.4773	1.38182	1.38669	1.39226	1.39638	0.00430	0.00351	0.00389	0.00290	0.00290
0.5374	1.37986	1.38479	1.39051	1.39472	0.00429	0.00353	0.00401	0.00304	0.00304
0.5872	1.37819	1.38316	1.38888	1.39309	0.00424	0.00348	0.00393	0.00291	0.00291
0.6444	1.37614	1.38101	1.38690	1.39093	0.00405	0.00316	0.00373	0.00247	0.00247
0.6855	1.37464	1.37951	1.38541	1.38943	0.00389	0.00297	0.00352	0.00221	0.00221
0.7620	1.37167	1.37648	1.38243	1.38646	0.00341	0.00238	0.00292	0.00154	0.00154
0.8785	1.36658	1.37179	1.37761	1.38220	0.00211	0.00140	0.00172	0.00078	0.00078
1.0000	1.36052	1.36652	1.37211	1.37777	0.00000	0.00000	0.00000	0.00000	0.00000

Tabla A.16. Influencia de la composición sobre la densidad, el volumen de exceso, la velocidad del sonido, la compresibilidad isoentrópica, la variación de la compresibilidad isoentrópica de mezcla para x_1 *n*-hexano (1) – x_2 *n*-nonano (2) en el intervalo de temperaturas (323.15-288.15) K.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
318.15 K					
0.0000	698.31	0.000	1123.9	1133.7	0.0
0.0752	694.95	-0.038	1117.2	1153.0	-18.7
0.1569	691.23	-0.102	1108.5	1177.4	-35.5
0.2410	687.14	-0.149	1098.9	1205.2	-50.3
0.3520	681.42	-0.209	1085.8	1244.8	-66.7
0.4375	676.64	-0.226	1074.7	1279.5	-75.2
0.5374	670.69	-0.235	1061.4	1323.5	-81.6
0.6444	663.81	-0.225	1046.0	1376.8	-82.3
0.7620	655.60	-0.193	1027.7	1444.1	-74.5
0.8785	646.70	-0.137	1008.2	1521.2	-56.2
1.0000	636.28	0.000	979.3	1638.8	0.0
315.65 K					
0.0000	700.21	0.000	1133.9	1110.8	0.0

Tabla A.16. Continuación.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
0.0752	696.85	-0.032	1127.2	1129.4	-17.9
0.1569	693.16	-0.098	1118.5	1153.1	-33.9
0.2410	689.10	-0.144	1109.1	1179.8	-48.1
0.3520	683.40	-0.198	1095.9	1218.3	-63.5
0.4375	678.65	-0.216	1085.1	1251.5	-71.8
0.5374	672.73	-0.222	1071.9	1293.9	-77.9
0.6444	665.90	-0.215	1056.6	1345.1	-78.7
0.7620	657.73	-0.183	1038.5	1409.7	-71.2
0.8785	648.90	-0.131	1019.2	1483.5	-54.0
1.0000	638.55	0.000	990.4	1596.6	0.0
313.15 K					
0.0000	702.20	0.000	1143.8	1088.5	0.0
0.0752	698.83	-0.024	1137.1	1106.8	-16.9
0.1569	695.18	-0.092	1128.5	1129.6	-32.2
0.2410	691.14	-0.137	1119.1	1155.4	-45.6
0.3520	685.48	-0.192	1106.3	1192.0	-60.8
0.4375	680.75	-0.207	1095.3	1224.4	-68.2
0.5374	674.85	-0.210	1082.2	1265.2	-74.0
0.6444	668.07	-0.206	1067.0	1314.8	-74.3
0.7620	659.96	-0.177	1049.3	1376.3	-67.7
0.8785	651.17	-0.123	1030.0	1447.5	-50.8
1.0000	640.90	0.000	1001.7	1555.0	0.0
310.65 K					
0.0000	704.16	0.000	1153.6	1067.1	0.0
0.0752	700.81	-0.024	1147.0	1084.5	-16.2
0.1569	697.18	-0.090	1138.5	1106.6	-30.7
0.2410	693.17	-0.133	1129.2	1131.5	-43.4
0.3520	687.53	-0.184	1116.4	1167.0	-57.5
0.4375	682.84	-0.201	1105.6	1198.1	-64.7
0.5374	676.96	-0.202	1092.6	1237.3	-70.2
0.6444	670.23	-0.199	1077.5	1285.0	-70.3
0.7620	662.17	-0.171	1059.9	1344.2	-63.7
0.8785	653.44	-0.121	1041.0	1412.3	-47.7
1.0000	643.23	0.000	1013.2	1514.4	0.0
308.15 K					
0.0000	706.13	0.000	1163.6	1084.2	0.0
0.0752	702.77	-0.014	1157.1	1108.2	-15.4
0.1569	699.18	-0.084	1148.6	1142.5	-29.2
0.2410	695.18	-0.126	1139.3	1172.5	-41.3
0.3520	689.57	-0.174	1126.7	1210.2	-54.7
0.4375	684.91	-0.190	1115.9	1256.2	-61.5
0.5374	679.05	-0.189	1103.1	1313.2	-66.6
0.6444	672.38	-0.190	1088.1	1378.3	-66.6
0.7620	664.35	-0.161	1070.6	1475.6	-60.1

Tabla A.16. Continuación.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
0.8785	655.67	-0.111	1051.9	1142.5	-45.1
1.0000	645.55	0.000	1024.6	1172.5	0.0
305.65 K					
0.0000	708.07	0.000	1173.6	1025.4	0.0
0.0752	704.73	-0.014	1167.0	1041.9	-14.6
0.1569	701.15	-0.080	1158.6	1062.6	-27.7
0.2410	697.18	-0.122	1149.4	1085.7	-39.3
0.3520	691.58	-0.165	1136.9	1118.8	-52.2
0.4375	686.96	-0.184	1126.3	1147.5	-58.8
0.5374	681.13	-0.179	1113.5	1184.2	-63.5
0.6444	674.50	-0.183	1098.7	1228.2	-63.8
0.7620	666.52	-0.155	1081.4	1282.9	-57.7
0.8785	657.89	-0.108	1062.9	1345.5	-43.3
1.0000	647.83	0.000	1035.7	1439.0	0.0
303.15 K					
0.0000	710.05	0.000	1183.6	1005.3	0.0
0.0752	706.71	-0.009	1177.1	1021.2	-14.0
0.1569	703.16	-0.076	1168.6	1041.3	-26.4
0.2410	699.21	-0.116	1159.6	1063.6	-37.5
0.3520	693.62	-0.153	1147.2	1095.5	-49.7
0.4375	689.04	-0.176	1136.6	1123.3	-55.9
0.5374	683.23	-0.168	1124.0	1158.4	-60.5
0.6444	676.64	-0.172	1109.3	1201.1	-60.4
0.7620	668.73	-0.149	1092.2	1253.5	-54.7
0.8785	660.14	-0.102	1073.9	1313.4	-41.1
1.0000	650.15	0.000	1047.1	1402.8	0.0
300.65 K					
0.0000	712.00	0.000	1193.6	985.8	0.0
0.0752	708.66	-0.003	1187.1	1001.4	-13.2
0.1569	705.14	-0.071	1178.8	1020.7	-25.2
0.2410	701.20	-0.109	1169.7	1042.3	-35.7
0.3520	695.65	-0.147	1157.4	1073.0	-47.4
0.4375	691.10	-0.170	1147.0	1099.9	-53.3
0.5374	685.30	-0.158	1134.5	1133.8	-57.6
0.6444	678.76	-0.167	1119.9	1174.7	-57.6
0.7620	670.90	-0.145	1103.0	1225.2	-52.0
0.8785	662.34	-0.096	1084.9	1282.8	-39.0
1.0000	652.42	0.000	1058.4	1368.3	0.0
298.15 K					
0.0000	713.96	0.000	1203.7	966.7	0.0
0.0752	710.62	0.001	1197.2	981.8	-12.6
0.1569	707.12	-0.067	1188.9	1000.5	-23.9
0.2410	703.22	-0.106	1180.0	1021.3	-34.0
0.3520	697.68	-0.138	1167.8	1051.1	-45.1

Tabla A.16. Continuación.

x_1	ρ	V^E	u	κ_S	$\delta\kappa_S$
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
0.4375	693.17	-0.165	1157.4	1076.9	-50.7
0.5374	687.39	-0.151	1145.1	1109.4	-55.0
0.6444	680.90	-0.161	1130.6	1148.9	-54.8
0.7620	673.07	-0.140	1113.8	1197.6	-49.5
0.8785	664.56	-0.092	1095.9	1253.0	-36.9
1.0000	654.70	0.000	1069.8	1334.6	0.0
295.65 K					
0.0000	715.90	0.000	1214.0	947.8	0.0
0.0752	712.55	0.009	1207.4	962.7	-11.7
0.1569	709.10	-0.064	1199.2	980.7	-22.6
0.2410	705.21	-0.101	1190.3	1000.9	-32.2
0.3520	699.69	-0.132	1178.2	1029.5	-42.8
0.4375	695.21	-0.160	1168.0	1054.4	-48.2
0.5374	689.45	-0.141	1155.7	1086.0	-52.0
0.6444	683.01	-0.155	1141.3	1123.9	-51.8
0.7620	675.22	-0.135	1124.7	1170.8	-46.6
0.8785	666.76	-0.089	1107.0	1223.9	-34.8
1.0000	656.96	0.000	1081.4	1301.6	0.0
293.15 K					
0.0000	717.84	0.000	1224.3	929.4	0.0
0.0752	714.51	0.008	1217.8	943.7	-11.2
0.1569	711.08	-0.063	1209.6	961.2	-21.5
0.2410	707.21	-0.100	1200.8	980.6	-30.8
0.3520	701.70	-0.125	1188.8	1008.4	-40.8
0.4375	697.26	-0.156	1178.6	1032.4	-45.9
0.5374	691.51	-0.134	1166.5	1062.8	-49.4
0.6444	685.11	-0.148	1152.3	1099.3	-49.3
0.7620	677.38	-0.132	1135.8	1144.4	-44.2
0.8785	668.95	-0.085	1118.3	1195.4	-32.8
1.0000	659.21	0.000	1093.1	1269.6	0.0
290.65 K					
0.0000	719.79	0.000	1234.9	911.0	0.0
0.0752	716.45	0.016	1228.2	925.3	-10.2
0.1569	713.05	-0.058	1220.1	942.1	-19.9
0.2410	709.20	-0.094	1211.4	960.9	-28.4
0.3520	703.71	-0.117	1199.5	987.7	-37.7
0.4375	699.30	-0.150	1189.4	1010.8	-42.4
0.5374	693.57	-0.126	1177.3	1040.2	-45.4
0.6444	687.20	-0.141	1163.3	1075.4	-45.0
0.7620	679.51	-0.124	1146.7	1119.1	-39.5
0.8785	671.13	-0.081	1129.6	1167.8	-28.6
1.0000	661.45	0.000	1106.0	1235.9	0.0
288.15 K					
0.0000	721.68	0.000	1245.4	893.4	0.0

Tabla A.16. Continuación.

x_1	ρ	V^E	u	K_S	δK_S
	$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
0.0752	718.35	0.017	1238.6	907.3	-9.5
0.1569	714.96	-0.054	1230.6	923.6	-18.6
0.2410	711.13	-0.089	1222.1	941.6	-26.9
0.3520	705.68	-0.112	1210.1	967.7	-35.4
0.4375	701.27	-0.140	1200.1	990.1	-39.6
0.5374	695.58	-0.119	1188.1	1018.4	-42.4
0.6444	689.25	-0.134	1174.2	1052.3	-41.8
0.7620	681.60	-0.120	1157.7	1094.6	-36.2
0.8785	673.26	-0.077	1140.8	1141.3	-25.8
1.0000	663.64	0.000	1118.3	1204.9	0.0

Tabla A.17. Influencia de la composición sobre los índices de refracción, las variaciones de índices de refracción de la mezcla ternaria x_1 etanol (1)+ x_2 *n*-hexano (2) – (1- x_1 - x_2) *n*-heptano (3) en el intervalo de temperaturas (318.15- 288.15) K.

x_1	x_2	n_D				δn_D			
		318.15	308.15	298.15	288.15	318.15	308.15	298.15	288.15
T / K									
0.0000	1.0000	1.36052	1.36652	1.37211	1.37777	0.00000	0.00000	0.00000	0.00000
0.0000	0.0000	1.37410	1.37952	1.38512	1.39027	0.00000	0.00000	0.00000	0.00000
0.0727	0.4526	1.37905	1.38995	1.38995	1.39432	0.00353	0.00403	0.00412	0.00348
0.0728	0.7973	1.36585	1.37678	1.37678	1.38269	0.00176	0.00178	0.00160	0.00210
0.0734	0.5097	1.37556	1.38654	1.38654	1.39154	0.00196	0.00269	0.00250	0.00243
0.0759	0.6328	1.37257	1.38321	1.38321	1.38860	0.00317	0.00347	0.00309	0.00326
0.0805	0.1206	1.38848	1.39853	1.39853	1.40384	0.00229	0.00345	0.00279	0.00348
0.0815	0.7188	1.36899	1.37975	1.37975	1.38528	0.00268	0.00251	0.00252	0.00274
0.0827	0.2716	1.38889	1.39899	1.39899	1.40359	0.00780	-0.00167	0.00801	0.00782
0.0901	0.2359	1.38516	1.39513	1.39513	1.40410	0.00321	0.00398	0.00337	0.00759
0.0966	0.3409	1.38188	1.39230	1.39230	1.39368	0.00369	0.00449	0.00407	0.00057
0.1983	0.7348	1.36240	1.37344	1.37344	1.38030	0.00169	0.00163	0.00182	0.00338
0.2122	0.6517	1.36580	1.37662	1.37662	1.38311	0.00293	0.00308	0.00304	0.00433
0.2151	0.4927	1.37273	1.38306	1.38306	1.38884	0.00472	0.00463	0.00471	0.00547
0.2155	0.5755	1.36893	1.37978	1.37978	1.38605	0.00368	0.00422	0.00400	0.00515
0.2233	0.4010	1.37582	1.38615	1.38615	1.39200	0.00512	0.00589	0.00532	0.00626
0.2234	0.3101	1.37944	1.38938	1.38938	1.39472	0.00573	0.00634	0.00575	0.00628
0.2318	0.2119	1.38238	1.39234	1.39234	1.39815	0.00578	0.00688	0.00605	0.00717
0.2385	0.1102	1.38562	1.39544	1.39544	1.40097	0.00594	0.00692	0.00630	0.00726
0.3651	0.5748	1.36074	1.37180	1.37180	1.37744	0.00195	0.00218	0.00254	0.00311
0.3672	0.5088	1.36432	1.37494	1.37494	1.38071	0.00344	0.00361	0.00374	0.00451
0.3781	0.4322	1.36783	1.37795	1.37795	1.38374	0.00488	0.00514	0.00486	0.00575
0.3886	0.3507	1.37106	1.38109	1.38109	1.38723	0.00586	0.00616	0.00594	0.00728
0.3945	0.2682	1.37483	1.38440	1.38440	1.39111	0.00715	0.00747	0.00696	0.00896

Tabla A.17. Continuación.

x_1	x_2	n_D				δn_D			
		318.15	308.15	298.15	288.15	318.15	308.15	298.15	288.15
0.4048	0.1848	1.37735	1.38749	1.38749	1.39403	0.00735	0.00833	0.00793	0.00986
0.4976	0.4480	1.35941	1.37031	1.37031	1.37538	0.00217	0.00254	0.00293	0.00312
0.5100	0.3785	1.36276	1.37374	1.37374	1.37917	0.00375	0.00431	0.00476	0.00539
0.5159	0.3120	1.36642	1.37658	1.37658	1.38158	0.00546	0.00591	0.00580	0.00608
0.5398	0.0805	1.37645	1.38503	1.38503	1.39158	0.00885	0.00959	0.00815	0.01025
0.6205	0.2768	1.36189	1.37210	1.37210	1.37770	0.00430	0.00454	0.00482	0.00576
0.6286	0.2143	1.36511	1.37550	1.37550	1.38070	0.00580	0.00626	0.00664	0.00726
0.6456	0.1390	1.36851	1.37853	1.37853	1.38375	0.00744	0.00802	0.00809	0.00882
0.6562	0.0721	1.37138	1.38122	1.38122	1.38664	0.00855	0.00934	0.00918	0.01019
0.7017	0.2000	1.35674	1.37098	1.37098	1.37634	0.00012	0.00488	0.00488	0.00570
0.7253	0.1291	1.36402	1.37370	1.37370	1.37921	0.00608	0.00636	0.00645	0.00750
0.7428	0.0625	1.36703	1.37682	1.37682	1.38222	0.00764	0.00822	0.00828	0.00930
0.7820	0.1764	1.35611	1.36608	1.36608	1.37127	0.00219	0.00282	0.00276	0.00346
0.7932	0.1192	1.35956	1.36919	1.36919	1.37429	0.00423	0.00469	0.00460	0.00527
0.8067	0.0585	1.36279	1.37229	1.37229	1.37746	0.00604	0.00665	0.00642	0.00724
0.8501	0.1091	1.35546	1.36488	1.36488	1.37054	0.00226	0.00277	0.00247	0.00373
0.8668	0.0524	1.35845	1.36353	1.36807	1.37302	0.00410	0.00472	0.00464	0.00526
0.9144	0.0476	1.35481	1.35944	1.36403	1.36863	0.00236	0.00250	0.00253	0.00282
1.0000	0.0000	1.35031	1.35477	1.35922	1.36345	0.0000	0.0000	0.0000	0.0000

Tabla A.18. Influencia de la composición sobre la densidad, el volumen de exceso, la velocidad del sonido, la compresibilidad isoentrópica, la variación de la compresibilidad isoentrópica de la mezcla ternaria x_1 etanol (1)+ x_2 *n*-hexano (2) – (1- x_1 - x_2) *n*-heptano (3) en el intervalo de temperaturas (323.15-288.15) K.

x_1	x_2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
318.15 K						
0.0000	1.0000	636.2	0.0000	1067.5	1638.60	0.00
0.0000	0.0000	662.4	0.0000	979.3	1387.80	0.00
0.1978	0.7289	649.1	0.4558	983.8	1591.46	73.01
0.2083	0.2874	662.6	0.4310	1012.3	1472.71	67.76
0.2164	0.4640	657.4	0.5353	999.5	1522.31	75.21
0.2275	0.0935	667.6	0.6689	1026.4	1421.58	70.30
0.2306	0.6155	653.6	0.5357	987.9	1567.54	86.18

Tabla A.18. Continuación.

x_1	x_2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.3543	0.4969	664.6	0.3775	984.0	1553.75	134.76
0.3644	0.3322	675.3	-0.4554	1004.3	1468.08	93.05
0.3707	0.1971	674.6	0.3906	1012.9	1444.71	105.24
0.3794	0.0832	683.7	-0.4924	1024.3	1393.95	85.35
0.3800	0.2523	672.2	0.6244	1009.0	1460.95	110.07
0.5051	0.2987	679.8	0.6041	1002.7	1462.96	133.44
0.5194	0.0760	689.4	0.3838	1022.4	1387.42	117.52
0.6111	0.2072	692.9	0.4951	1011.0	1411.80	133.18
0.6230	0.1371	695.6	0.6043	1017.5	1388.56	130.67
0.6286	0.0657	698.4	0.6069	1023.7	1366.09	127.56
0.6920	0.2442	701.2	0.3859	1008.8	1401.21	134.66
0.7098	0.1261	709.1	0.1722	1024.7	1342.95	110.69
0.7119	0.0588	708.6	0.5318	1030.3	1329.32	114.52
0.7759	0.1728	714.6	0.3760	1021.1	1341.89	115.36
0.7821	0.1155	716.9	0.4393	1026.0	1325.04	114.50
0.7858	0.0586	719.1	0.4641	1032.0	1305.48	110.21
0.8407	0.1097	727.4	0.3151	1035.1	1282.95	89.34
0.9295	0.0483	747.6	0.1953	1052.5	1207.30	52.50
0.9499	0.0095	753.6	0.1810	1060.6	1179.49	39.78
0.9530	0.0239	756.9	-0.0794	1063.9	1167.08	24.59
0.9535	0.0157	754.2	0.1814	1060.0	1179.98	39.67
0.9541	0.0197	754.5	0.1567	1064.4	1169.74	28.60
0.9558	0.0099	755.5	0.1317	1063.5	1170.14	31.92
1.0000	0.0000	768.4	0.0000	1067.5	1124.10	0.00
315.65 K						
0.0000	1.0000	638.5	0.0000	990.4	1596.60	0.00
0.0000	0.0000	664.5	0.0000	1053.8	1355.10	0.00
0.1978	0.7289	651.5	0.4330	995.1	1550.08	68.69
0.2083	0.2874	664.9	0.4120	1023.1	1436.73	64.61
0.2164	0.4640	659.7	0.5147	1010.5	1484.41	71.67
0.2275	0.0935	669.8	0.6553	1037.2	1387.58	67.10
0.2306	0.6155	655.9	0.5123	999.0	1527.48	81.72
0.3543	0.4969	667.0	0.3466	995.1	1513.84	127.84
0.3644	0.3322	677.0	-0.4923	1015.2	1431.52	87.83
0.3707	0.1971	676.9	0.3666	1023.6	1409.67	100.21
0.3794	0.0832	686.1	-0.5349	1035.1	1360.13	80.38
0.3800	0.2523	674.5	0.6030	1019.7	1425.62	105.15
0.5051	0.2987	682.1	0.5825	1013.4	1427.50	127.30
0.5194	0.0760	691.7	0.3667	1033.0	1354.81	111.98
0.6111	0.2072	695.2	0.4792	1021.3	1378.89	127.44
0.6230	0.1371	697.8	0.5874	1027.7	1356.69	125.17

Tabla A.18. Continuación.

x_1	x_2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.6286	0.0657	700.7	0.5918	1033.8	1335.27	122.39
0.6920	0.2442	703.5	0.3737	1019.0	1368.95	128.93
0.7098	0.1261	711.4	0.1617	1034.5	1313.28	106.23
0.7119	0.0588	710.9	0.5197	1040.2	1300.09	109.85
0.7759	0.1728	716.8	0.3688	1030.8	1312.81	111.12
0.7821	0.1155	719.1	0.4303	1035.7	1296.36	110.05
0.7858	0.0586	721.4	0.4540	1041.6	1277.60	105.99
0.8407	0.1097	729.6	0.3093	1044.5	1256.11	85.96
0.9295	0.0483	749.8	0.1936	1061.4	1183.64	50.65
0.9499	0.0095	755.8	0.1794	1069.4	1156.93	38.43
0.9530	0.0239	759.1	-0.0797	1072.6	1144.91	23.71
0.9535	0.0157	756.4	0.1782	1068.8	1157.16	38.06
0.9541	0.0197	756.7	0.1567	1073.2	1147.42	27.51
0.9558	0.0099	757.7	0.1307	1072.2	1147.87	30.77
1.0000	0.0000	770.6	0.0000	1084.3	1103.60	0.00
313.15 K						
0.0000	1.0000	640.9	0.0000	1001.7	1555.00	0.00
0.0000	0.0000	666.2	0.0000	1064.3	1324.30	0.00
0.1978	0.7289	653.9	0.4401	1006.2	1510.42	65.56
0.2083	0.2874	667.2	0.3811	1033.9	1401.93	61.44
0.2164	0.4640	662.1	0.5364	1021.4	1447.49	68.21
0.2275	0.0935	672.0	0.5296	1047.9	1354.95	63.80
0.2306	0.6155	658.4	0.5292	1010.0	1488.82	78.00
0.3543	0.4969	669.5	0.2996	1006.1	1475.35	121.66
0.3644	0.3322	680.2	-0.6579	1026.1	1396.03	82.75
0.3707	0.1971	679.3	0.1736	1034.3	1375.84	95.27
0.3794	0.0832	688.6	-0.9310	1045.9	1327.57	75.39
0.3800	0.2523	676.9	0.4623	1030.5	1391.19	100.10
0.5051	0.2987	684.5	0.4555	1023.8	1393.60	121.92
0.5194	0.0760	694.0	0.0151	1043.4	1323.59	106.72
0.6111	0.2072	697.6	0.2930	1031.5	1347.32	122.24
0.6230	0.1371	700.2	0.3282	1037.9	1325.75	119.73
0.6286	0.0657	703.0	0.2406	1043.9	1305.33	117.11
0.6920	0.2442	705.9	0.2860	1029.0	1337.91	123.78
0.7098	0.1261	713.7	-0.0783	1044.4	1284.31	101.69
0.7119	0.0588	713.2	0.1909	1050.1	1271.48	104.92
0.7759	0.1728	719.2	0.2811	1040.5	1284.25	106.77
0.7821	0.1155	721.4	0.2570	1045.2	1268.72	105.94
0.7858	0.0586	723.7	0.1862	1051.1	1250.56	101.81
0.8407	0.1097	731.9	0.2102	1053.8	1230.17	82.85
0.9295	0.0483	752.1	0.1376	1070.3	1160.69	48.88
0.9499	0.0095	758.0	0.0731	1078.0	1135.12	37.16
0.9530	0.0239	761.3	-0.1411	1081.2	1123.40	22.88
0.9535	0.0157	758.6	0.0977	1077.4	1135.48	36.96

Tabla A.18. Continuación.

x_1	x_2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.9541	0.0197	758.9	0.0874	1081.8	1125.79	26.50
0.9558	0.0099	759.9	0.0399	1080.9	1126.22	29.61
1.0000	0.0000	772.8	0.0000	1092.7	1083.70	0.00
310.65 K						
0.0000	1.0000	643.2	0.0000	1013.2	1514.40	0.00
0.0000	0.0000	668.8	0.0000	1075.0	1293.60	0.00
0.1978	0.7289	656.3	0.3908	1017.3	1472.05	62.85
0.2083	0.2874	669.5	0.3689	1044.7	1368.32	59.00
0.2164	0.4640	664.5	0.4687	1032.3	1412.03	65.58
0.2275	0.0935	674.3	0.6334	1058.6	1323.32	61.20
0.2306	0.6155	660.8	0.4674	1021.1	1451.36	74.70
0.3543	0.4969	671.9	0.2851	1017.2	1438.31	116.20
0.3644	0.3322	682.7	-0.5690	1036.9	1362.21	78.77
0.3707	0.1971	681.6	0.3214	1045.0	1343.26	91.11
0.3794	0.0832	690.7	-0.5581	1056.5	1297.00	72.01
0.3800	0.2523	679.2	0.5587	1041.1	1358.25	96.03
0.5051	0.2987	686.9	0.5436	1034.3	1360.81	117.03
0.5194	0.0760	696.3	0.3349	1053.8	1293.27	101.93
0.6111	0.2072	699.9	0.4470	1041.6	1316.76	117.47
0.6230	0.1371	702.5	0.5537	1047.9	1296.10	115.03
0.6286	0.0657	705.3	0.5567	1053.9	1276.49	112.45
0.6920	0.2442	708.2	0.3492	1038.9	1308.11	119.21
0.7098	0.1261	716.1	0.1374	1054.2	1256.53	97.77
0.7119	0.0588	715.5	0.4924	1059.	1244.06	100.66
0.7759	0.1728	721.5	0.3508	1050.0	1256.90	102.99
0.7821	0.1155	723.7	0.4125	1054.7	1242.11	102.25
0.7858	0.0586	725.9	0.4340	1060.6	1224.50	98.08
0.8407	0.1097	734.2	0.2972	1063.0	1205.14	80.02
0.9295	0.0483	754.3	0.1874	1079.0	1138.61	47.39
0.9499	0.0095	760.2	0.1734	1086.6	1113.90	35.91
0.9530	0.0239	763.6	-0.0816	1089.8	1102.59	22.14
0.9535	0.0157	760.9	0.1734	1086.0	1114.29	35.76
0.9541	0.0197	761.1	0.1522	1090.4	1104.81	25.54
0.9558	0.0099	762.2	0.1254	1089.4	1105.34	28.64
1.0000	0.0000	775.0	0.0000	1101.0	1064.40	0.00
308.15 K						
0.0000	1.0000	645.5	0.0000	1024.6	1475.70	0.00
0.0000	0.0000	671.0	0.0000	1085.6	1264.40	0.00
0.1978	0.7289	658.7	0.3721	1028.5	1435.12	60.02
0.2083	0.2874	671.8	0.3505	1055.5	1335.91	56.39

Tabla A.18. Continuación.

x_1	x_2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.2164	0.4640	666.8	0.4488	1043.3	1377.64	62.59
0.2275	0.0935	676.5	0.6255	1069.4	1292.65	58.30
0.2306	0.6155	663.1	0.4495	1032.1	1415.50	71.55
0.3543	0.4969	674.4	0.2563	1028.2	1402.36	110.55
0.3644	0.3322	685.2	-0.6098	1047.8	1329.13	74.32
0.3707	0.1971	683.9	0.3019	1055.7	1311.69	86.83
0.3794	0.0832	689.8	-0.0460	1067.4	1272.38	73.50
0.3800	0.2523	681.5	0.5388	1051.8	1326.14	91.64
0.5051	0.2987	689.2	0.5253	1044.9	1328.90	112.00
0.5194	0.0760	698.5	0.3231	1064.2	1263.88	97.17
0.6111	0.2072	702.2	0.4343	1051.9	1286.95	112.60
0.6230	0.1371	704.8	0.5397	1058.1	1267.12	110.20
0.6286	0.0657	707.6	0.5403	1064.0	1248.22	107.59
0.6920	0.2442	710.5	0.3398	1048.9	1279.11	114.67
0.7098	0.1261	718.4	0.1272	1064.1	1229.26	93.65
0.7119	0.0588	717.7	0.4802	1069.8	1217.31	96.41
0.7759	0.1728	723.8	0.3445	1059.7	1230.21	99.22
0.7821	0.1155	726.0	0.4048	1064.3	1215.90	98.37
0.7858	0.0586	728.2	0.4248	1070.2	1198.96	94.28
0.8407	0.1097	736.5	0.2922	1072.4	1180.59	77.14
0.9295	0.0483	756.5	0.1866	1087.8	1116.87	45.83
0.9499	0.0095	762.4	0.1711	1095.3	1093.09	34.70
0.9530	0.0239	765.8	-0.0817	1098.5	1082.13	21.39
0.9535	0.0157	763.1	0.1705	1094.7	1093.35	34.44
0.9541	0.0197	763.3	0.1508	1099.2	1084.10	24.49
0.9558	0.0099	764.4	0.1239	1098.1	1084.83	27.67
1.0000	0.0000	777.2	0.0000	1109.4	1045.40	0.00
305.65 K						
0.0000	1.0000	647.8	0.0000	1035.7	1439.00	0.00
0.0000	0.0000	673.1	0.0000	1096.3	1236.10	0.00
0.1978	0.7289	661.1	0.3514	1039.6	1399.51	56.90
0.2083	0.2874	674.1	0.3334	1066.4	1304.38	53.54
0.2164	0.4640	669.1	0.4303	1054.2	1344.56	59.59
0.2275	0.0935	678.6	0.6183	1080.1	1262.94	55.45
0.2306	0.6155	665.5	0.4301	1043.2	1380.79	68.04
0.3543	0.4969	676.8	0.2266	1039.2	1367.97	105.16
0.3644	0.3322	687.7	-0.6514	1058.7	1297.24	69.96
0.3707	0.1971	686.2	0.2839	1066.5	1281.13	82.59
0.3794	0.0832	692.0	-0.0442	1078.6	1242.19	68.60
0.3800	0.2523	683.8	0.5205	1062.5	1295.28	87.48
0.5051	0.2987	691.5	0.5088	1055.3	1298.29	107.25
0.5194	0.0760	700.8	0.3104	1074.7	1235.39	92.52
0.6111	0.2072	704.5	0.4197	1062.1	1258.23	107.93
0.6230	0.1371	707.1	0.5254	1068.3	1239.19	105.61

Tabla A.18. Continuación.

x_1	x_2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.6286	0.0657	709.8	0.5256	1074.1	1220.99	103.05
0.6920	0.2442	712.8	0.3285	1058.9	1250.94	110.07
0.7098	0.1261	720.6	0.1173	1073.9	1203.08	89.88
0.7119	0.0588	720.0	0.4691	1079.7	1191.35	92.27
0.7759	0.1728	726.1	0.3374	1069.4	1204.26	95.42
0.7821	0.1155	728.2	0.3980	1073.9	1190.67	94.74
0.7858	0.0586	730.4	0.4153	1079.7	1174.22	90.63
0.8407	0.1097	738.7	0.2878	1081.7	1156.89	74.42
0.9295	0.0483	758.7	0.1849	1096.6	1095.85	44.40
0.9499	0.0095	764.6	0.1687	1104.0	1072.94	33.62
0.9530	0.0239	768.0	-0.0827	1107.1	1062.21	20.63
0.9535	0.0157	765.3	0.1683	1103.4	1073.19	33.37
0.9541	0.0197	765.5	0.1493	1107.9	1064.16	23.65
0.9558	0.0099	766.5	0.1224	1106.8	1064.92	26.78
1.0000	0.0000	779.4	0.0000	1117.8	1026.90	0.00
303.15 K						
0.0000	1.0000	650.1	0.0000	1047.1	1402.90	0.00
0.0000	0.0000	675.3	0.0000	1107.0	1208.40	0.00
0.1978	0.7289	663.4	0.3368	1050.8	1364.97	54.30
0.2083	0.2874	676.4	0.3183	1077.3	1273.85	51.15
0.2164	0.4640	671.5	0.4139	1065.2	1312.47	57.04
0.2275	0.0935	680.8	0.6121	1090.9	1234.05	52.88
0.2306	0.6155	667.8	0.4141	1054.3	1346.98	64.91
0.3543	0.4969	679.3	0.1951	1050.3	1334.31	100.01
0.3644	0.3322	690.3	-0.6953	1069.6	1266.26	66.01
0.3707	0.1971	688.5	0.2696	1077.3	1251.42	78.72
0.3794	0.0832	694.2	-0.0508	1089.4	1213.62	64.82
0.3800	0.2523	686.1	0.5044	1073.3	1265.05	83.45
0.5051	0.2987	693.9	0.4934	1065.9	1268.42	102.79
0.5194	0.0760	703.0	0.3003	1085.2	1207.78	88.32
0.6111	0.2072	706.8	0.4076	1072.3	1230.25	103.58
0.6230	0.1371	709.4	0.5136	1078.5	1211.93	101.29
0.6286	0.0657	712.1	0.5116	1084.2	1194.47	98.82
0.6920	0.2442	715.2	0.3200	1068.9	1223.63	105.93
0.7098	0.1261	722.9	0.1083	1083.8	1177.41	86.22
0.7119	0.0588	722.3	0.4577	1089.6	1166.13	88.47
0.7759	0.1728	728.3	0.3301	1079.1	1178.93	91.87
0.7821	0.1155	730.5	0.3913	1083.5	1165.90	91.21
0.7858	0.0586	732.7	0.4073	1089.3	1150.10	87.24
0.8407	0.1097	741.0	0.2837	1091.1	1133.64	71.80
0.9295	0.0483	760.9	0.1831	1105.5	1075.19	43.02
0.9499	0.0095	766.8	0.1657	1112.8	1053.00	32.44

Tabla A.18. Continuación.

x_1	x_2	ρ	V^E	u	κ_s	$\delta\kappa_s$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.9530	0.0239	770.2	-0.0835	1115.8	1042.77	20.04
0.9535	0.0157	767.5	0.1662	1112.1	1053.43	32.38
0.9541	0.0197	767.7	0.1479	1116.6	1044.56	22.85
0.9558	0.0099	768.8	0.1206	1115.4	1045.43	25.99
1.0000	0.0000	781.5	0.0000	1126.2	1008.70	0.00
300.65 K						
0.0000	1.0000	652.4	0.0000	1058.4	1368.30	0.00
0.0000	0.0000	677.4	0.0000	1117.6	1181.70	0.00
0.1978	0.7289	665.8	0.3200	1062.0	1331.76	51.74
0.2083	0.2874	678.6	0.3033	1088.1	1244.46	48.83
0.2164	0.4640	673.7	0.3965	1076.2	1281.39	54.35
0.2275	0.0935	683.0	0.6009	1101.7	1206.10	50.30
0.2306	0.6155	670.1	0.3966	1065.4	1314.56	61.96
0.3543	0.4969	681.7	0.1643	1061.4	1302.11	95.21
0.3644	0.3322	692.8	-0.7420	1080.4	1236.42	62.18
0.3707	0.1971	690.7	0.2577	1088.0	1222.99	75.17
0.3794	0.0832	696.4	-0.0612	1100.3	1185.91	61.02
0.3800	0.2523	688.4	0.4884	1084.0	1236.09	79.73
0.5051	0.2987	696.1	0.4775	1076.5	1239.54	98.37
0.5194	0.0760	705.2	0.2927	1095.7	1181.14	84.25
0.6111	0.2072	709.1	0.3949	1082.5	1203.37	99.48
0.6230	0.1371	711.6	0.5011	1088.6	1185.64	97.11
0.6286	0.0657	714.4	0.4980	1094.3	1168.84	94.69
0.6920	0.2442	717.4	0.3098	1079.0	1197.19	101.83
0.7098	0.1261	725.2	0.0990	1093.7	1152.80	82.85
0.7119	0.0588	724.5	0.4471	1099.4	1141.79	84.82
0.7759	0.1728	730.6	0.3234	1088.7	1154.61	88.55
0.7821	0.1155	732.7	0.3833	1093.1	1142.11	87.92
0.7858	0.0586	734.9	0.3989	1098.8	1126.82	83.97
0.8407	0.1097	743.2	0.2785	1100.4	1111.22	69.30
0.9295	0.0483	763.1	0.1811	1114.3	1055.23	41.67
0.9499	0.0095	769.0	0.1626	1121.4	1033.93	31.50
0.9530	0.0239	772.4	-0.0847	1124.5	1023.84	19.32
0.9535	0.0157	769.7	0.1633	1120.8	1034.27	31.37
0.9541	0.0197	769.9	0.1460	1125.3	1025.62	22.09
0.9558	0.0099	770.9	0.1180	1124.1	1026.43	25.06
1.0000	0.0000	783.7	0.0000	1134.6	991.10	0.00
298.15 K						
0.0000	1.0000	654.7	0.0000	1069.8	1334.50	0.00
0.0000	0.0000	679.5	0.0000	1128.4	1155.70	0.00
0.1978	0.7289	668.1	0.3038	1073.2	1299.52	49.47
0.2083	0.2874	680.9	0.2899	1099.0	1215.93	46.73
0.2164	0.4640	676.0	0.3806	1087.3	1251.20	51.90

Tabla A.18. Continuación.

x_1	x_2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.2275	0.0935	685.2	0.5881	1112.6	1178.95	47.90
0.2306	0.6155	672.4	0.3822	1076.5	1283.06	59.25
0.3543	0.4969	684.1	0.1291	1072.5	1270.69	90.59
0.3644	0.3322	695.4	-0.7999	1091.4	1207.17	58.35
0.3707	0.1971	692.9	0.2533	1098.7	1195.30	71.80
0.3794	0.0832	698.6	-0.0648	1111.2	1159.12	57.57
0.3800	0.2523	690.7	0.4727	1094.8	1207.95	76.25
0.5051	0.2987	698.4	0.4633	1087.1	1211.51	94.28
0.5194	0.0760	707.4	0.2901	1106.2	1155.27	80.46
0.6111	0.2072	711.4	0.3839	1092.8	1177.05	95.46
0.6230	0.1371	713.9	0.4889	1098.9	1159.99	93.12
0.6286	0.0657	716.6	0.4854	1104.4	1143.93	90.81
0.6920	0.2442	719.7	0.3021	1089.0	1171.57	98.09
0.7098	0.1261	727.5	0.0895	1103.6	1128.57	79.43
0.7119	0.0588	726.7	0.4371	1109.4	1117.96	81.26
0.7759	0.1728	732.9	0.3164	1098.5	1130.72	85.25
0.7821	0.1155	735.0	0.3771	1102.7	1118.83	84.73
0.7858	0.0586	737.2	0.3909	1108.5	1104.00	80.77
0.8407	0.1097	745.4	0.2754	1109.7	1089.34	66.96
0.9295	0.0483	765.3	0.1801	1123.2	1035.62	40.36
0.9499	0.0095	771.2	0.1610	1130.2	1015.07	30.45
0.9530	0.0239	774.5	-0.0845	1133.2	1005.36	18.74
0.9535	0.0157	771.8	0.1614	1129.5	1015.43	30.36
0.9541	0.0197	772.1	0.1448	1134.0	1007.07	21.39
0.9558	0.0099	773.1	0.1161	1132.8	1007.92	24.32
1.0000	0.0000	785.8	0.0000	1143.1	973.80	0.00
295.65 K						
0.0000	1.0000	656.9	0.0000	1081.4	1301.70	0.00
0.0000	0.0000	681.6	0.0000	1139.2	1130.40	0.00
0.1978	0.7289	670.4	0.2906	1084.4	1268.39	47.47
0.2083	0.2874	683.1	0.2767	1110.0	1188.15	44.68
0.2164	0.4640	678.3	0.3658	1098.4	1221.95	49.64
0.2275	0.0935	687.4	0.5716	1123.5	1152.38	45.44
0.2306	0.6155	674.7	0.3697	1087.7	1252.56	56.76
0.3543	0.4969	683.4	0.5868	1072.4	1272.13	118.12
0.3644	0.3322	698.0	-0.8544	1102.4	1178.80	54.74
0.3707	0.1971	695.0	0.2658	1109.6	1168.51	68.70
0.3794	0.0832	700.7	-0.0639	1122.3	1132.94	54.17
0.3800	0.2523	690.0	0.9248	1094.7	1209.31	101.66
0.5051	0.2987	700.7	0.4509	1097.7	1184.37	90.49
0.5194	0.0760	709.4	0.2980	1116.7	1130.21	76.96

Tabla A.18 Continuación.

x_1	x_2	ρ	V^E	u	κ_s	$\delta\kappa_s$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.6111	0.2072	710.7	0.7460	1092.7	1178.36	118.55
0.6230	0.1371	713.2	0.8476	1098.8	1161.28	115.56
0.6286	0.0657	718.8	0.4743	1114.6	1119.62	87.08
0.6920	0.2442	719.0	0.6318	1088.9	1172.86	120.77
0.7098	0.1261	729.7	0.0829	1113.6	1105.06	76.27
0.7119	0.0588	726.0	0.7622	1109.3	1119.19	102.32
0.7759	0.1728	732.2	0.6143	1098.4	1131.95	106.65
0.7821	0.1155	731.4	0.9795	1092.9	1144.68	130.25
0.7858	0.0586	739.3	0.3846	1118.1	1081.80	77.78
0.8407	0.1097	741.8	0.8284	1100.2	1113.70	110.46
0.9295	0.0483	767.5	0.1782	1132.	1016.36	39.05
0.9499	0.0095	773.3	0.1596	1139.0	996.64	29.51
0.9530	0.0239	776.7	-0.0847	1142.0	987.16	18.11
0.9535	0.0157	774.0	0.1602	1138.3	997.01	29.44
0.9541	0.0197	774.2	0.1441	1142.8	988.85	20.71
0.9558	0.0099	775.3	0.1151	1141.2	989.82	23.66
1.0000	0.0000	788.0	0.0000	1151.6	956.80	0.00
293.15 K						
0.0000	1.0000	659.2	0.0000	1093.1	1269.70	0.00
0.0000	0.0000	683.7	0.0000	1150.2	1105.50	0.00
0.1978	0.7289	669.7	0.8007	1084.4	1269.60	77.15
0.2083	0.2874	685.3	0.2615	1121.2	1160.62	42.40
0.2164	0.4640	680.6	0.3514	1109.6	1193.36	47.49
0.2275	0.0935	689.6	0.5534	1134.6	1126.38	43.17
0.2306	0.6155	677.0	0.3557	1099.1	1222.64	54.24
0.3543	0.4969	685.9	0.5453	1083.7	1241.31	112.85
0.3644	0.3322	697.3	-0.4046	1102.4	1179.89	80.14
0.3707	0.1971	694.3	0.7172	1109.6	1169.59	93.08
0.3794	0.0832	702.8	-0.0519	1133.4	1107.57	51.22
0.3800	0.2523	692.2	0.9052	1105.7	1181.52	97.48
0.5051	0.2987	703.0	0.4395	1108.5	1157.66	86.71
0.5194	0.0760	711.2	0.3491	1127.5	1106.01	73.99
0.6111	0.2072	715.9	0.3625	1113.5	1126.50	88.11
0.6230	0.1371	718.3	0.4677	1119.6	1110.51	85.62
0.6286	0.0657	721.0	0.4625	1125.0	1095.73	83.47
0.6920	0.2442	721.3	0.6204	1099.1	1147.54	116.48
0.7098	0.1261	731.9	0.0753	1123.7	1081.86	73.12
0.7119	0.0588	731.1	0.4193	1129.5	1071.99	74.66
0.7759	0.1728	737.3	0.3058	1118.2	1084.64	79.18
0.7821	0.1155	739.4	0.3658	1122.2	1073.88	78.85
0.7858	0.0586	741.5	0.3772	1127.9	1059.87	74.81
0.8407	0.1097	746.9	0.5426	1119.2	1068.82	84.45

Tabla A.18. Continuación.

x_1	x_2	ρ	V^E	u	κ_s	$\delta\kappa_s$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.9295	0.0483	769.6	0.1759	1141.3	997.44	37.84
0.9499	0.0095	775.5	0.1563	1148.0	978.42	28.56
0.9530	0.0239	778.8	-0.0860	1150.9	969.17	17.46
0.9535	0.0157	776.1	0.1574	1147.3	978.68	28.41
0.9541	0.0197	776.4	0.1426	1151.8	970.82	19.98
0.9558	0.0099	780.3	-0.1145	1159.2	953.69	4.76
1.0000	0.0000	790.1	0.0000	1160.3	940.00	0.00
290.65 K						
0.0000	1.0000	661.4	0.0000	1106.0	1235.90	0.00
0.0000	0.0000	685.8	0.0000	1161.3	1081.20	0.00
0.1978	0.7289	677.9	-0.2322	1118.6	1178.96	16.21
0.2083	0.2874	687.5	0.2518	1132.2	1134.61	41.81
0.2164	0.4640	682.8	0.3402	1120.9	1165.51	46.68
0.2275	0.0935	691.8	0.5417	1145.6	1101.33	41.55
0.2306	0.6155	682.2	-0.1473	1121.6	1165.15	25.12
0.3543	0.4969	691.2	0.0677	1106.3	1182.17	80.01
0.3644	0.3322	697.6	-0.1145	1135.6	1111.50	36.40
0.3707	0.1971	698.6	0.3803	1131.6	1117.73	64.54
0.3794	0.0832	704.7	-0.0172	1154.7	1064.16	29.97
0.3800	0.2523	697.4	0.4320	1127.7	1127.42	67.15
0.5051	0.2987	708.1	0.0369	1129.9	1106.15	58.45
0.5194	0.0760	712.5	0.4638	1138.2	1083.23	72.23
0.6111	0.2072	718.1	0.3565	1123.8	1102.54	85.72
0.6230	0.1371	720.5	0.4595	1130.0	1086.75	82.66
0.6286	0.0657	723.2	0.4527	1135.4	1072.48	80.30
0.6920	0.2442	723.5	0.6114	1109.4	1122.82	113.04
0.7098	0.1261	736.9	-0.2426	1143.8	1037.20	48.49
0.7119	0.0588	733.3	0.4126	1139.8	1049.58	71.64
0.7759	0.1728	739.5	0.3027	1128.1	1062.46	76.97
0.7821	0.1155	741.6	0.3613	1132.0	1052.15	76.49
0.7858	0.0586	743.7	0.3726	1137.7	1038.75	72.50
0.8407	0.1097	752.0	0.2659	1138.4	1026.01	60.51
0.9295	0.0483	771.8	0.1760	1150.5	979.03	37.04
0.9499	0.0095	774.8	0.3866	1148.0	979.19	46.41
0.9530	0.0239	781.0	-0.0839	1159.9	951.72	17.20
0.9535	0.0157	775.4	0.3862	1147.4	979.45	46.28
0.9541	0.0197	778.5	0.1425	1160.9	953.07	19.38
0.9558	0.0099	779.5	0.1131	1159.3	954.43	22.53
1.0000	0.0000	792.3	0.0000	1169.1	923.40	0.00
288.15 K						
0.0000	1.0000	663.6	0.0000	1118.3	1205.00	0.00

Tabla A.18. Continuación.

x_1	x_2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.0000	0.0000	687.9	0.0000	1172.3	1057.70	0.00
0.1978	0.7289	677.9	-0.1571	1118.6	1178.96	43.74
0.2083	0.2874	690.3	-0.1456	1143.0	1108.63	40.03
0.2164	0.4640	685.7	-0.0807	1132.0	1137.99	44.60
0.2275	0.0935	694.6	0.1887	1156.7	1076.02	38.87
0.2306	0.6155	682.2	-0.1061	1121.6	1165.15	51.58
0.3543	0.4969	689.5	0.2566	1117.6	1161.03	83.60
0.3644	0.3322	697.6	-0.2100	1135.6	1111.50	59.85
0.3707	0.1971	701.2	-0.0984	1142.5	1092.34	61.55
0.3794	0.0832	704.7	-0.0500	1154.7	1064.16	51.47
0.3800	0.2523	700.2	-0.0899	1138.4	1101.90	64.38
0.5051	0.2987	708.1	-0.1796	1129.9	1106.15	80.67
0.5194	0.0760	715.2	-0.0488	1148.9	1059.18	68.66
0.6111	0.2072	720.9	-0.2486	1134.0	1078.66	82.65
0.6230	0.1371	723.3	-0.1052	1139.9	1063.79	79.91
0.6286	0.0657	726.0	-0.0815	1145.	1049.65	77.12
0.6920	0.2442	729.3	-0.3336	1129.6	1074.44	85.20
0.7098	0.1261	736.9	-0.4934	1143.8	1037.20	68.03
0.7119	0.0588	736.1	-0.0950	1150.1	1026.97	68.05
0.7759	0.1728	742.3	-0.2311	1138.0	1040.18	74.11
0.7821	0.1155	744.4	-0.1305	1141.7	1030.58	73.88
0.7858	0.0586	746.5	-0.0855	1147.3	1017.50	69.76
0.8407	0.1097	754.8	-0.1662	1148.0	1005.21	58.22
0.9295	0.0483	774.6	-0.0748	1159.3	960.57	36.01
0.9499	0.0095	780.4	-0.0240	1165.7	942.85	27.08
0.9530	0.0239	783..8	-0.2699	1168.6	934.15	16.74
0.9535	0.0157	781.1	-0.0204	1165.1	943.06	26.93
0.9541	0.0197	781.3	-0.0342	1169.8	935.25	18.62
0.9558	0.0099	782.3	-0.0558	1168.1	936.76	21.85
1.0000	0.0000	794.4	0.0000	1178.2	906.80	0.00

Tabla A.19. Influencia de la composición sobre los índices de refracción, las variaciones de índices de refracción de la mezcla ternaria x_1 etanol (1)+ x_2 *n*-hexano (2) – (1- x_1 - x_2) *n*-octano (3) en el intervalo de temperaturas (318.15- 288.15) K.

x_1	x_2	n_D				δn_D			
		318.15	308.15	298.15	288.15	318.15	308.15	298.15	288.15
T / K									
0.0000	1.0000	1.36052	1.36652	1.37211	1.37777	0.00000	0.00000	0.00000	0.00000
0.0000	0.0000	1.38489	1.39058	1.39551	1.40040	0.00000	0.00000	0.00000	0.00000
0.0747	0.5303	1.37137	1.37672	1.38212	1.38779	0.00199	0.00158	0.00173	0.00216

Tabla A.19. Continuación.

x_1	x_2	n_D				δn_D			
		318.15	308.15	298.15	288.15	318.15	308.15	298.15	288.15
0.0811	0.0388	1.38152	1.38692	1.39224	1.39730	0.00038	0.00018	0.00058	0.00078
0.0835	0.6090	1.36879	1.37438	1.37994	1.38531	0.00163	0.00144	0.00171	0.00178
0.0845	0.5639	1.37365	1.37906	1.38415	1.38971	0.00543	0.00508	0.00490	0.00520
0.0875	0.6916	1.36645	1.37195	1.37764	1.38337	0.00144	0.00115	0.00149	0.00186
0.0898	0.1164	1.38065	1.38584	1.39121	1.39644	0.00170	0.00128	0.00168	0.00199
0.0935	0.7681	1.36373	1.36943	1.37539	1.38101	0.00080	0.00068	0.00125	0.00145
0.1014	0.8477	1.36069	1.36662	1.37342	1.37819	0.00003	0.00007	0.00143	0.00072
0.1099	0.8448	1.36130	1.36757	1.37247	1.37776	0.00080	0.00125	0.00072	0.00054
0.1476	0.0690	1.38203	1.38632	1.39195	1.39684	0.00393	0.00269	0.00342	0.00346
0.2034	0.7280	1.36139	1.36719	1.37289	1.37831	0.00128	0.00141	0.00180	0.00190
0.2153	0.3887	1.37196	1.37705	1.38221	1.38775	0.00399	0.00354	0.00361	0.00410
0.2198	0.2970	1.37482	1.37984	1.38463	1.39041	0.00477	0.00428	0.00405	0.00486
0.2207	0.5573	1.36691	1.37202	1.37698	1.38323	0.00324	0.00275	0.00252	0.00360
0.2306	0.1027	1.37869	1.38401	1.38914	1.39405	0.00428	0.00416	0.00440	0.00450
0.2728	0.1103	1.37511	1.38007	1.38500	1.39021	0.00234	0.00192	0.00197	0.00239
0.3658	0.4997	1.36242	1.36818	1.37347	1.37868	0.00236	0.00272	0.00293	0.00311
0.3752	0.3455	1.36568	1.37292	1.37804	1.38328	0.00219	0.00409	0.00423	0.00456
0.3797	0.2619	1.37155	1.37568	1.38050	1.38581	0.00618	0.00500	0.00490	0.00537
0.3814	0.4134	1.36552	1.37104	1.37653	1.37982	0.00390	0.00407	0.00454	0.00287
0.3859	0.1811	1.37263	1.37817	1.38296	1.38781	0.00550	0.00577	0.00569	0.00577
0.5142	0.2357	1.36619	1.37141	1.37666	1.38146	0.00483	0.00492	0.00533	0.00540
0.5230	0.1566	1.36883	1.37415	1.37869	1.38363	0.00584	0.00607	0.00583	0.00610
0.6166	0.2732	1.35965	1.36503	1.37052	1.37522	0.00274	0.00311	0.00378	0.00379
0.6239	0.2062	1.36227	1.36735	1.37281	1.37729	0.00398	0.00408	0.00477	0.00461
0.6315	0.1412	1.36468	1.36969	1.37486	1.37957	0.00507	0.00512	0.00557	0.00570
0.6489	0.0578	1.36775	1.37233	1.37757	1.38241	0.00671	0.00638	0.00696	0.00730
0.6588	0.2874	1.35510	1.36078	1.36683	1.36937	0.00000	0.00071	0.00196	-0.00018
0.7113	0.1895	1.35843	1.36362	1.36892	1.37388	0.00276	0.00307	0.00366	0.00405
0.7148	0.1287	1.36108	1.36624	1.37151	1.37625	0.00405	0.00436	0.00495	0.00518
0.7260	0.0638	1.36329	1.36837	1.37466	1.37858	0.00506	0.00533	0.00699	0.00645
0.7783	0.1759	1.35441	1.35988	1.36531	1.36820	0.00073	0.00141	0.00217	0.00054
0.7877	0.1177	1.35770	1.35988	1.36765	1.37250	0.00292	0.00034	0.00348	0.00387
0.7987	0.0586	1.35989	1.36477	1.36998	1.37466	0.00405	0.00420	0.00483	0.00510
0.8470	0.1086	1.35444	1.35942	1.36432	1.36911	0.00149	0.00179	0.00209	0.00247
0.8570	0.0542	1.35690	1.36170	1.36665	1.37117	0.00297	0.00312	0.00351	0.00366
0.9069	0.0520	1.35348	1.35839	1.36323	1.36775	0.00122	0.00154	0.00185	0.00204
0.9486	0.0254	1.35285	1.35763	1.36165	1.36534	0.00138	0.00163	0.00116	0.00057
1.0000	0.0000	1.35031	1.35477	1.35922	1.36345	0.00000	0.00000	0.00000	0.00000

Tabla A.20. Influencia de la composición sobre la densidad, el volumen de exceso, la velocidad del sonido, la compresibilidad isoentrópica, la variación de la compresibilidad isoentrópica de la mezcla ternaria x_1 Etanol (1)+ x_2 *n*-hexano (2) – (1- x_1 - x_2) *n*-octano (3) en el intervalo de temperaturas (323.15-288.15) K.

x_1	x_2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
318.15 K						
0.0000	1.0000	636.2	0.0000	1067.5	1638.60	0.00
0.0000	0.0000	682.4	0.0000	1085.4	1243.70	0.00
0.2154	0.3887	670.1	0.5851	1067.1	1284.75	28.07
0.2199	0.2970	679.1	0.5375	1073.4	1277.81	-56.88
0.2306	0.1027	683.5	-0.4044	1031.4	1402.65	31.21
0.2728	0.1104	690.9	0.4582	936.9	1648.59	393.94
0.3659	0.4997	668.1	-0.6113	1033.1	1373.91	72.20
0.3753	0.3455	677.1	0.5809	1022.4	1412.80	77.54
0.3798	0.2619	681.8	0.5810	1012.9	1451.47	90.13
0.3815	0.4134	671.5	0.9258	1001.5	1492.17	94.90
0.5142	0.2358	691.0	0.5613	1038.4	1335.27	92.26
0.5230	0.1566	694.4	0.5634	1030.9	1361.57	86.27
0.6167	0.2732	694.3	0.6845	1036.5	1323.84	99.89
0.6239	0.2062	698.9	0.6434	1026.9	1356.89	106.38
0.6315	0.1413	703.0	0.4185	1015.2	1397.40	119.56
0.7114	0.1895	708.3	0.5907	1046.8	1273.64	91.58
0.7148	0.1288	711.5	0.5669	1035.6	1310.42	101.36
0.7261	0.0638	716.4	0.5674	1025.4	1342.60	109.13
0.7877	0.1177	720.9	0.5940	1047.4	1256.90	85.56
0.7987	0.0587	725.2	0.5593	1036.4	1291.35	95.37
0.8470	0.1087	730.4	0.5403	1048.4	1239.10	76.48
0.8570	0.0542	734.1	1.1756	1039.1	1267.75	82.44
0.9070	0.0520	744.1	0.5266	1052.9	1212.26	56.50
1.0000	0.0000	768.4	0.0000	1067.0	1124.10	0.00
315.65 K						
0.0000	1.0000	638.5	0.0000	990.4	1596.60	0.00
0.0000	0.0000	684.4	0.0000	1095.8	1216.60	0.00
0.2154	0.3887	672.3	0.5631	1077.	1255.60	26.03
0.2199	0.2970	681.1	0.5153	1084.0	1249.33	-55.28
0.2306	0.1027	685.7	-0.3845	1042.1	1369.47	29.50
0.2728	0.1104	693.1	0.4351	1065.9	1269.64	41.94
0.3659	0.4997	670.4	-0.6350	1043.1	1341.87	68.66
0.3753	0.3455	679.4	0.5574	1033.0	1379.36	73.88
0.3798	0.2619	684.1	0.5586	1023.6	1416.44	85.84
0.3815	0.4134	673.8	0.9027	1012.1	1455.44	90.30
0.5142	0.2358	693.2	0.5378	1048.7	1305.13	88.10
0.5230	0.1566	696.6	0.5346	1041.1	1330.87	82.78

Tabla A20. Continuación.

x_1	x_2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.6167	0.2732	696.6	0.6710	1046.5	1294.52	95.60
0.6239	0.2062	701.1	0.6226	1036.8	1326.74	102.28
0.6315	0.1413	705.3	0.4011	1025.4	1365.14	114.40
0.7114	0.1895	710.5	0.5708	1056.5	1246.48	87.68
0.7148	0.1288	713.7	0.5465	1045.5	1281.75	96.99
0.7261	0.0638	718.6	0.5489	1035.2	1313.06	104.82
0.7877	0.1177	723.1	0.5776	1056.8	1230.98	82.35
0.7987	0.0587	727.4	0.5447	1046.0	1263.76	91.44
0.8470	0.1087	732.7	0.5244	1057.7	1213.82	73.46
0.8570	0.0542	736.3	1.1522	1048.4	1241.66	79.47
0.9070	0.0520	746.3	0.5123	1061.8	1188.39	54.51
1.0000	0.0000	770.6	0.0000	1084.3	1103.60	0.00
313.15 K						
0.0000	1.0000	640.9	0.0000	1001.7	1555.00	0.00
0.0000	0.0000	686.5	0.0000	1106.2	1190.30	0.00
0.2154	0.3887	674.6	0.5411	1088.2	1227.60	24.43
0.2199	0.2970	683.2	0.4922	1094.6	1221.46	-53.72
0.2306	0.1027	687.9	-0.3648	1052.9	1337.04	27.94
0.2728	0.1104	695.4	0.4152	1075.8	1242.46	41.00
0.3659	0.4997	672.8	-0.6543	1054.1	1311.16	65.82
0.3753	0.3455	681.7	0.5363	1043.5	1347.07	70.77
0.3798	0.2619	686.4	0.5363	1034.0	1383.09	82.68
0.3815	0.4134	676.1	0.8790	1023.1	1419.85	86.32
0.5142	0.2358	695.5	0.5169	1058.9	1275.76	84.08
0.5230	0.1566	698.9	0.5172	1051.3	1300.79	79.33
0.6167	0.2732	699.0	0.6503	1056.5	1266.08	91.58
0.6239	0.2062	703.4	0.6013	1046.7	1297.46	98.46
0.6315	0.1413	707.6	0.3825	1035.6	1333.92	109.71
0.7114	0.1895	712.9	0.5535	1066.2	1220.15	83.98
0.7148	0.1288	716.0	0.5303	1055.2	1254.28	93.22
0.7261	0.0638	720.9	0.5290	1045.1	1284.15	100.55
0.7877	0.1177	725.4	0.5612	1066.1	1205.69	79.14
0.7987	0.0587	729.6	0.5283	1055.6	1237.05	87.79
0.8470	0.1087	734.9	0.5081	1066.9	1189.46	70.74
0.8570	0.0542	738.6	1.1285	1057.6	1216.34	76.70
0.9070	0.0520	748.5	0.4985	1070.7	1165.35	52.77
1.0000	0.0000	772.8	0.0000	1092.7	1083.70	0.00
310.65 K						
0.0000	1.0000	643.2	0.0000	1013.2	1514.40	0.00
0.0000	0.0000	688.5	0.0000	1116.5	1164.90	0.00

Tabla A.20. Continuación.

x_1	x_2	ρ	V^E	u	κ_s	$\delta\kappa_s$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.2154	0.3887	676.9	0.5176	1098.6	1200.60	22.99
0.2199	0.2970	685.3	0.4704	1105.0	1194.99	-51.62
0.2306	0.1027	690.1	-0.3461	1063.2	1306.85	27.75
0.2728	0.1104	697.6	0.3950	1085.8	1215.72	39.67
0.3659	0.4997	675.1	-0.6732	1064.6	1281.27	62.99
0.3753	0.3455	684.0	0.5142	1054.0	1315.73	67.79
0.3798	0.2619	688.6	0.5149	1044.5	1350.89	79.83
0.3815	0.4134	678.5	0.8583	1033.8	1385.71	82.94
0.5142	0.2358	697.8	0.4962	1069.1	1247.57	80.48
0.5230	0.1566	701.2	0.4952	1061.5	1271.69	76.07
0.6167	0.2732	701.3	0.6290	1066.5	1238.49	87.69
0.6239	0.2062	705.7	0.5821	1056.6	1269.03	94.76
0.6315	0.1413	709.8	0.3630	1045.8	1303.70	105.29
0.7114	0.1895	715.2	0.5356	1075.8	1194.66	80.42
0.7148	0.1288	718.3	0.5111	1064.9	1227.56	89.50
0.7261	0.0638	723.2	0.5108	1054.9	1256.44	96.79
0.7877	0.1177	727.7	0.5452	1075.5	1181.11	75.98
0.7987	0.0587	731.9	0.5126	1065.2	1211.10	84.22
0.8470	0.1087	737.2	0.4927	1076.1	1165.65	67.92
0.8570	0.0542	740.8	1.1063	1066.7	1191.95	74.19
0.9070	0.0520	750.7	0.4836	1079.5	1142.92	50.99
1.0000	0.0000	775.0	0.0000	1101.0	1064.40	0.00
308.15 K						
0.0000	1.0000	645.5	0.0000	1024.6	1475.70	0.00
0.0000	0.0000	690.6	0.0000	1126.9	1140.20	0.00
0.2154	0.3887	679.2	0.4990	1109.0	1174.45	21.66
0.2199	0.2970	687.4	0.4514	1115.6	1168.94	-50.07
0.2306	0.1027	692.2	-0.3279	1074.0	1276.44	26.25
0.2728	0.1104	699.8	0.3783	1096.1	1189.33	37.97
0.3659	0.4997	677.5	-0.6896	1075.3	1251.66	59.59
0.3753	0.3455	686.3	0.4946	1064.6	1285.39	64.84
0.3798	0.2619	690.9	0.4980	1055.2	1319.17	76.43
0.3815	0.4134	680.8	0.8408	1043.7	1354.91	81.75
0.5142	0.2358	700.1	0.4803	1079.5	1219.88	76.71
0.5230	0.1566	703.4	0.4807	1071.8	1243.35	72.80
0.6167	0.2732	703.6	0.6120	1076.6	1211.60	83.88
0.6239	0.2062	708.0	0.5640	1066.8	1241.06	90.82
0.6315	0.1413	712.1	0.3484	1056.0	1274.48	101.08
0.7114	0.1895	717.4	0.5193	1085.5	1169.77	76.99
0.7148	0.1288	720.6	0.4957	1074.8	1201.21	85.57
0.7261	0.0638	725.4	0.4941	1064.8	1229.25	92.90
0.7877	0.1177	729.9	0.5307	1084.8	1157.53	73.37
0.7987	0.0587	734.1	0.4984	1074.7	1186.01	80.99

Tabla A.20. Continuación.

x_1	x_2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.8470	0.1087	739.5	0.4803	1085.4	1142.36	65.21
0.8570	0.0542	743.0	1.0846	1076.1	1167.78	71.42
0.9070	0.0520	753.0	0.4727	1088.4	1121.05	49.39
1.0000	0.0000	777.2	0.0000	1109.4	1045.40	0.00
305.65 K						
0.0000	1.0000	647.8	0.0000	1035.7	1439.00	0.00
0.0000	0.0000	692.6	0.0000	1137.2	1116.40	0.00
0.2154	0.3887	681.4	0.4806	1119.5	1149.12	20.23
0.2199	0.2970	689.4	0.4328	1126.1	1143.83	-48.70
0.2306	0.1027	694.3	-0.3120	1084.6	1247.58	25.06
0.2728	0.1104	702.0	0.3631	1106.2	1164.05	36.47
0.3659	0.4997	679.8	-0.7055	1085.8	1223.74	56.83
0.3753	0.3455	688.6	0.4753	1075.3	1255.88	61.61
0.3798	0.2619	693.1	0.4787	1065.9	1288.47	72.84
0.3815	0.4134	683.0	0.8220	1054.5	1322.89	78.03
0.5142	0.2358	702.3	0.4615	1089.7	1193.33	73.21
0.5230	0.1566	705.7	0.4643	1082.0	1216.09	69.66
0.6167	0.2732	705.9	0.5922	1086.6	1185.71	80.26
0.6239	0.2062	710.2	0.5460	1076.8	1214.23	87.14
0.6315	0.1413	714.3	0.3311	1066.2	1246.14	96.79
0.7114	0.1895	719.7	0.5029	1095.2	1145.84	73.84
0.7148	0.1288	722.8	0.4824	1084.4	1176.32	82.36
0.7261	0.0638	727.6	0.4785	1074.6	1203.20	89.32
0.7877	0.1177	732.1	0.5165	1094.1	1134.42	70.58
0.7987	0.0587	736.3	0.4854	1084.3	1161.71	77.83
0.8470	0.1087	741.7	0.4663	1094.5	1120.00	62.81
0.8570	0.0542	745.2	1.0646	1085.2	1144.78	69.13
0.9070	0.0520	755.2	0.4606	1097.3	1099.70	47.70
1.0000	0.0000	779.4	0.0000	1117.8	1026.90	0.00
303.15 K						
0.0000	1.0000	650.1	0.0000	1047.1	1402.90	0.00
0.0000	0.0000	694.6	0.0000	1147.5	1093.20	0.00
0.2154	0.3887	683.6	0.4661	1129.9	1124.44	18.92
0.2199	0.2970	691.5	0.4163	1136.6	1119.47	-47.14
0.2306	0.1027	696.5	-0.2946	1095.1	1219.58	24.20
0.2728	0.1104	704.1	0.3488	1116.5	1139.13	34.80
0.3659	0.4997	682.1	-0.7186	1096.2	1196.59	54.37
0.3753	0.3455	690.9	0.4576	1085.9	1227.42	58.93

Tabla A.20. Continuación.

x_1	x_2	ρ	V^E	u	κ_s	$\delta\kappa_s$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.3798	0.2619	695.4	0.4610	1076.7	1258.68	69.68
0.3815	0.4134	685.3	0.8066	1065.3	1291.67	74.63
0.5142	0.2358	704.6	0.4449	1099.9	1167.54	70.02
0.5230	0.1566	707.9	0.4477	1092.3	1189.49	66.72
0.6167	0.2732	708.2	0.5772	1096.6	1160.47	76.89
0.6239	0.2062	712.5	0.5299	1086.8	1188.02	83.67
0.6315	0.1413	716.5	0.3171	1076.4	1218.70	93.00
0.7114	0.1895	722.0	0.4903	1104.9	1122.28	70.67
0.7148	0.1288	725.0	0.4688	1094.3	1151.75	79.07
0.7261	0.0638	729.8	0.4647	1084.4	1177.66	85.87
0.7877	0.1177	734.4	0.5049	1103.5	1111.87	68.00
0.7987	0.0587	738.5	0.4720	1093.7	1138.20	75.10
0.8470	0.1087	743.9	0.4550	1103.8	1098.03	60.45
0.8570	0.0542	747.5	1.0457	1094.5	1122.11	66.82
0.9070	0.0520	757.4	0.4507	1106.2	1078.98	46.31
1.0000	0.0000	781.5	0.0000	1126.2	1008.70	0.00
300.65 K						
0.0000	1.0000	652.4	0.0000	1058.4	1368.30	0.00
0.0000	0.0000	696.6	0.0000	1157.8	1070.80	0.00
0.2154	0.3887	685.8	0.4484	1140.4	1100.59	17.61
0.2199	0.2970	693.5	0.4004	1147.0	1095.88	-45.76
0.2306	0.1027	698.6	-0.2788	1105.6	1192.73	23.46
0.2728	0.1104	706.3	0.3360	1126.7	1115.17	33.29
0.3659	0.4997	684.4	-0.7319	1106.	1170.51	52.06
0.3753	0.3455	693.1	0.4410	1096.4	1200.17	56.50
0.3798	0.2619	697.6	0.4445	1087.4	1229.88	66.48
0.3815	0.4134	687.6	0.7904	1076.0	1261.77	71.47
0.5142	0.2358	706.8	0.4285	1110.2	1142.52	66.80
0.5230	0.1566	710.1	0.4357	1102.4	1163.99	64.03
0.6167	0.2732	710.4	0.5604	1106.5	1136.21	73.72
0.6239	0.2062	714.8	0.5142	1097.0	1162.59	80.16
0.6315	0.1413	718.7	0.3028	1086.5	1192.19	89.25
0.7114	0.1895	724.2	0.4771	1114.5	1099.67	67.75
0.7148	0.1288	727.3	0.4553	1104.1	1127.91	75.77
0.7261	0.0638	732.0	0.4502	1094.3	1153.06	82.57
0.7877	0.1177	736.6	0.4920	1112.9	1089.91	65.31
0.7987	0.0587	740.7	0.4594	1103.3	1115.19	72.15
0.8470	0.1087	746.1	0.4430	1113.0	1076.79	58.16
0.8570	0.0542	749.7	1.0268	1103.6	1100.28	64.66
0.9070	0.0520	759.5	0.4393	1115.0	1058.89	44.90
1.0000	0.0000	783.7	0.0000	1134.6	991.10	0.00

Tabla A.20. Continuación.

x_1	x_2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
298.15 K						
0.0000	1.0000	654.7	0.0000	1069.8	1334.50	0.00
0.0000	0.0000	698.7	0.0000	1168.2	1048.80	0.00
0.2154	0.3887	688.0	0.4326	1150.7	1077.58	16.73
0.2199	0.2970	695.5	0.3849	1157.7	1072.71	-44.46
0.2306	0.1027	700.8	-0.2617	1116.1	1166.71	23.01
0.2728	0.1104	708.5	0.3229	1137.0	1091.68	31.81
0.3659	0.4997	686.7	-0.7444	1117.1	1144.99	49.84
0.3753	0.3455	695.3	0.4256	1107.0	1173.42	54.05
0.3798	0.2619	699.8	0.4283	1098.2	1201.95	63.65
0.3815	0.4134	689.8	0.7760	1086.8	1232.67	68.55
0.5142	0.2358	709.1	0.4148	1120.5	1118.09	63.76
0.5230	0.1566	712.3	0.4218	1112.7	1138.90	61.31
0.6167	0.2732	712.7	0.5455	1116.6	1112.42	70.62
0.6239	0.2062	717.0	0.4997	1107.1	1137.82	76.90
0.6315	0.1413	720.9	0.2881	1096.7	1166.39	85.79
0.7114	0.1895	726.4	0.4645	1124.2	1077.63	65.05
0.7148	0.1288	729.5	0.4433	1113.9	1104.80	72.82
0.7261	0.0638	734.2	0.4380	1104.2	1128.98	79.39
0.7877	0.1177	738.8	0.4808	1122.3	1068.50	62.84
0.7987	0.0587	742.9	0.4479	1112.9	1092.76	69.40
0.8470	0.1087	748.3	0.4325	1122.2	1056.10	56.08
0.8570	0.0542	751.8	1.0092	1112.9	1078.79	62.46
0.9070	0.0520	761.7	0.4297	1123.9	1039.19	43.55
1.0000	0.0000	785.8	0.0000	1143.1	973.80	0.00
295.65 K						
0.0000	1.0000	656.9	0.0000	1081.4	1301.70	0.00
0.0000	0.0000	700.7	0.0000	1178.7	1027.20	0.00
0.2154	0.3887	690.2	0.4209	1161.0	1055.42	16.26
0.2199	0.2970	697.6	0.3711	1168.4	1049.93	-43.32
0.2306	0.1027	702.9	-0.2454	1126.9	1140.84	22.10
0.2728	0.1104	710.6	0.3108	1147.2	1069.19	30.91
0.3659	0.4997	689.0	-0.7519	1127.7	1120.01	47.64
0.3753	0.3455	697.5	0.4110	1117.6	1147.66	52.04
0.3798	0.2619	702.0	0.4165	1109.0	1174.74	60.91
0.3815	0.4134	692.0	0.7629	1097.8	1204.25	65.64
0.5142	0.2358	711.3	0.4018	1130.9	1094.29	60.91
0.5230	0.1566	714.5	0.4097	1123.1	1114.56	58.84
0.6167	0.2732	714.9	0.5337	1126.8	1089.13	67.61
0.6239	0.2062	719.2	0.4871	1117.3	1113.78	73.90
0.6315	0.1413	723.1	0.2774	1107.0	1141.22	82.44

Tabla A.20. Continuación.

x_1	x_2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.7114	0.1895	728.7	0.4539	1134.0	1055.99	62.39
0.7148	0.1288	731.7	0.4326	1123.8	1082.16	69.93
0.7261	0.0638	736.3	0.4266	1114.1	1105.60	76.45
0.7877	0.1177	741.0	0.4709	1131.9	1047.57	60.50
0.7987	0.0587	745.1	0.4377	1122.6	1070.85	66.79
0.8470	0.1087	750.5	0.4218	1131.5	1035.85	54.09
0.8570	0.0542	754.0	0.9930	1122.2	1057.83	60.43
0.9070	0.0520	763.9	0.4212	1132.9	1019.85	42.22
1.0000	0.0000	788.0	0.0000	1151.6	956.80	0.00
293.15 K						
0.0000	1.0000	659.2	0.0000	1093.1	1269.70	0.00
0.0000	0.0000	702.7	0.0000	1189.3	1006.10	0.00
0.2154	0.3887	692.4	0.4075	1171.2	1033.99	16.06
0.2199	0.2970	699.6	0.3597	1179.4	1027.52	-42.33
0.2306	0.1027	705.0	-0.2302	1137.8	1115.49	21.17
0.2728	0.1104	712.7	0.3002	1157.8	1046.56	29.41
0.3659	0.4997	691.2	-0.7623	1138.6	1095.37	45.33
0.3753	0.3455	699.8	0.3972	1128.5	1122.09	49.72
0.3798	0.2619	704.2	0.4028	1120.1	1147.96	58.09
0.3815	0.4134	694.3	0.7497	1108.9	1176.46	62.83
0.5142	0.2358	713.5	0.3878	1141.6	1070.64	57.82
0.5230	0.1566	716.7	0.3976	1133.6	1090.65	56.39
0.6167	0.2732	721.4	0.5210	1102.0	1177.23	175.64
0.6239	0.2062	725.3	0.4731	1137.1	1066.31	47.09
0.6315	0.1413	699.4	0.2668	1127.7	1089.98	52.62
0.7114	0.1895	733.9	0.4430	1106.8	1145.50	170.57
0.7148	0.1288	738.5	0.4222	1144.0	1034.66	41.87
0.7261	0.0638	712.6	-0.2164	1133.8	1059.93	50.89
0.7877	0.1177	747.2	3.8989	1124.2	1082.43	113.66
0.7987	0.0587	730.9	-0.0628	1141.5	1026.90	41.83
0.8470	0.1087	756.2	-0.1163	1132.4	1049.33	85.58
0.8570	0.0542	743.2	0.4062	1140.9	1015.85	37.09
0.9070	0.0520	752.7	3.5063	1131.8	1037.05	77.19
1.0000	0.0000	790.1	0.0000	1160.3	940.00	0.00
290.65 K						
0.0000	1.0000	661.4	0.0000	1106.0	1235.90	0.00
0.0000	0.0000	704.7	0.0000	1200.0	985.40	0.00
0.2154	0.3887	694.6	0.3943	1181.4	1013.29	16.46
0.2199	0.2970	701.6	0.3478	1190.5	1005.47	-40.70
0.2306	0.1027	707.1	-0.2142	1148.9	1090.67	21.25
0.2728	0.1104	714.9	0.2888	1168.5	1024.41	28.28
0.3659	0.4997	693.5	-0.7710	1149.4	1071.55	44.09
0.3753	0.3455	701.9	0.3875	1139.4	1097.30	48.61

Tabla A.20. Continuación.

x_1	x_2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.3798	0.2619	706.3	0.3923	1131.2	1121.95	56.64
0.3815	0.4134	696.5	0.7354	1119.9	1149.54	61.65
0.5142	0.2358	715.7	0.3764	1152.1	1048.09	55.87
0.5230	0.1566	718.8	0.3870	1144.1	1067.39	54.81
0.6167	0.2732	723.6	0.5086	1112.9	1150.58	168.95
0.6239	0.2062	727.5	0.4642	1147.3	1044.31	45.94
0.6315	0.1413	701.6	0.2582	1138.0	1067.03	51.43
0.7114	0.1895	736.0	0.4321	1117.2	1120.60	164.23
0.7148	0.1288	740.6	0.4142	1154.1	1013.65	40.31
0.7261	0.0638	714.9	-0.2181	1143.9	1038.28	49.51
0.7877	0.1177	749.4	3.8579	1134.3	1060.10	109.53
0.7987	0.0587	733.1	-0.0643	1151.3	1006.72	40.67
0.8470	0.1087	758.3	-0.1164	1142.2	1028.32	82.47
0.8570	0.0542	745.3	0.3987	1150.3	996.51	36.40
0.9070	0.0520	754.9	3.4701	1141.2	1017.15	74.95
1.0000	0.0000	792.3	0.0000	1169.1	923.40	0.00
			288.15 K			
0.0000	1.0000	663.6	0.0000	1118.3	1205.00	0.00
0.0000	0.0000	706.7	0.0000	1112.0	964.90	0.00
0.2154	0.3887	697.3	0.2609	1191.1	992.99	16.83
0.2199	0.2970	704.3	0.2149	1202.1	982.55	-40.89
0.2306	0.1027	709.8	-0.3225	1159.7	1066.25	20.54
0.2728	0.1104	717.6	0.1622	1178.9	1002.60	27.05
0.3659	0.4997	696.4	-0.8952	1160.1	1047.63	41.91
0.3753	0.3455	704.8	0.2720	1150.0	1072.77	46.72
0.3798	0.2619	709.1	0.2760	1142.0	1096.30	54.30
0.3815	0.4134	699.3	0.6210	1130.8	1122.99	59.37
0.5142	0.2358	718.5	0.2625	1162.7	1025.05	52.92
0.5230	0.1566	721.6	0.2750	1154.3	1044.59	52.96
0.6167	0.2732	726.4	0.4055	1123.7	1124.07	161.94
0.6239	0.2062	730.3	0.3589	1157.4	1022.16	43.99
0.6315	0.1413	704.5	0.1560	1148.3	1043.89	49.22
0.7114	0.1895	738.8	0.3323	1127.6	1095.81	157.77
0.7148	0.1288	743.4	0.3154	1163.7	993.19	38.91
0.7261	0.0638	717.7	-0.3104	1153.6	1017.00	47.92
0.7877	0.1177	752.2	3.7284	1144.3	1037.74	105.17
0.7987	0.0587	735.9	-0.1467	1160.7	986.78	39.38
0.8470	0.1087	761.1	-0.2015	1151.6	1007.79	79.66
0.8570	0.0542	748.1	0.3086	1159.4	977.28	35.50
0.9070	0.0520	757.7	3.3572	1150.3	997.38	72.69
1.0000	0.0000	794.4	0.0000	1178.2	906.80	0.00

Tabla A.21. Influencia de la composición sobre los índices de refracción, las variaciones de índices de refracción de la mezcla ternaria x_1 etanol (1)+ x_2 *n*-hexano (2) – $(1-x_1-x_2)$ *n*-nonano (3) en el intervalo de temperaturas (318.15- 288.15) K.

x_1	x_2	n_D				δn_D			
		318.15	308.15	298.15	288.15	318.15	308.15	298.15	288.15
T / K									
0.0000	1.0000	1.36052	1.36652	1.37211	1.37777	0.00000	0.00000	0.00000	0.00000
0.0000	0.0000	1.39368	1.39718	1.40298	1.40749	0.00000	0.00000	0.00000	0.00000
0.0727	0.4526	1.37905	1.38995	1.38995	1.39432	0.00353	0.00403	0.00412	0.00348
0.0728	0.7973	1.36585	1.37678	1.37678	1.38269	0.00176	0.00178	0.00160	0.00210
0.0734	0.5097	1.37556	1.38654	1.38654	1.39154	0.00196	0.00269	0.00250	0.00243
0.0759	0.6328	1.37257	1.38321	1.38321	1.38860	0.00317	0.00347	0.00309	0.00326
0.0805	0.1206	1.38848	1.39853	1.39853	1.40384	0.00229	0.00345	0.00279	0.00348
0.0815	0.7188	1.36899	1.37975	1.37975	1.38528	0.00268	0.00251	0.00252	0.00274
0.0827	0.2716	1.38889	1.39899	1.39899	1.40359	0.00780	-0.00167	0.00801	0.00782
0.0901	0.2359	1.38516	1.39513	1.39513	1.40410	0.00321	0.00398	0.00337	0.00759
0.0966	0.3409	1.38188	1.39230	1.39230	1.39368	0.00369	0.00449	0.00407	0.00057
0.1983	0.7348	1.36240	1.37344	1.37344	1.38030	0.00169	0.00163	0.00182	0.00338
0.2122	0.6517	1.36580	1.37662	1.37662	1.38311	0.00293	0.00308	0.00304	0.00433
0.2151	0.4927	1.37273	1.38306	1.38306	1.38884	0.00472	0.00463	0.00471	0.00547
0.2155	0.5755	1.36893	1.37978	1.37978	1.38605	0.00368	0.00422	0.00400	0.00515
0.2233	0.4010	1.37582	1.38615	1.38615	1.39200	0.00512	0.00589	0.00532	0.00626
0.2234	0.3101	1.37944	1.38938	1.38938	1.39472	0.00573	0.00634	0.00575	0.00628
0.2318	0.2119	1.38238	1.39234	1.39234	1.39815	0.00578	0.00688	0.00605	0.00717
0.2385	0.1102	1.38562	1.39544	1.39544	1.40097	0.00594	0.00692	0.00630	0.00726
0.3651	0.5748	1.36074	1.37180	1.37180	1.37744	0.00195	0.00218	0.00254	0.00311
0.3672	0.5088	1.36432	1.37494	1.37494	1.38071	0.00344	0.00361	0.00374	0.00451
0.3781	0.4322	1.36783	1.37795	1.37795	1.38374	0.00488	0.00514	0.00486	0.00575
0.3886	0.3507	1.37106	1.38109	1.38109	1.38723	0.00586	0.00616	0.00594	0.00728
0.3945	0.2682	1.37483	1.38440	1.38440	1.39111	0.00715	0.00747	0.00696	0.00896
0.4048	0.1848	1.37735	1.38749	1.38749	1.39403	0.00735	0.00833	0.00793	0.00986
0.4976	0.4480	1.35941	1.37031	1.37031	1.37538	0.00217	0.00254	0.00293	0.00312
0.5100	0.3785	1.36276	1.37374	1.37374	1.37917	0.00375	0.00431	0.00476	0.00539
0.5159	0.3120	1.36642	1.37658	1.37658	1.38158	0.00546	0.00591	0.00580	0.00608
0.5398	0.0805	1.37645	1.38503	1.38503	1.39158	0.00885	0.00959	0.00815	0.01025
0.6205	0.2768	1.36189	1.37210	1.37210	1.37770	0.00430	0.00454	0.00482	0.00576
0.6286	0.2143	1.36511	1.37550	1.37550	1.38070	0.00580	0.00626	0.00664	0.00726
0.6456	0.1390	1.36851	1.37853	1.37853	1.38375	0.00744	0.00802	0.00809	0.00882
0.6562	0.0721	1.37138	1.38122	1.38122	1.38664	0.00855	0.00934	0.00918	0.01019
0.7017	0.2000	1.35674	1.37098	1.37098	1.37634	0.00012	0.00488	0.00488	0.00570
0.7253	0.1291	1.36402	1.37370	1.37370	1.37921	0.00608	0.00636	0.00645	0.00750
0.7428	0.0625	1.36703	1.37682	1.37682	1.38222	0.00764	0.00822	0.00828	0.00930
0.7820	0.1764	1.35611	1.36608	1.36608	1.37127	0.00219	0.00282	0.00276	0.00346
0.7932	0.1192	1.35956	1.36919	1.36919	1.37429	0.00423	0.00469	0.00460	0.00527
0.8067	0.0585	1.36279	1.37229	1.37229	1.37746	0.00604	0.00665	0.00642	0.00724
0.8501	0.1091	1.35546	1.36488	1.36488	1.37054	0.00226	0.00277	0.00247	0.00373
0.8668	0.0524	1.35845	1.36353	1.36807	1.37302	0.00410	0.00472	0.00464	0.00526
0.9144	0.0476	1.35481	1.35944	1.36403	1.36863	0.00236	0.00250	0.00253	0.00282
1.0000	0.0000	1.35031	1.35477	1.35922	1.36345	0.00000	0.00000	0.00000	0.00000

A. Tablas de Propiedad.

Tabla A.22. Influencia de la composición sobre la densidad, el volumen de exceso, la velocidad del sonido, la compresibilidad isoentrópica, la variación de la compresibilidad isoentrópica de la mezcla ternaria x_1 Etanol (1)+ x_2 *n*-hexano (2) – (1- x_1 - x_2) *n*-nonano (3) en el intervalo de temperaturas (318.15- 288.15) K.

x_1	x_2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
318.15 K						
0.0000	1.0000	636.2	0.0000	1067.5	1638.60	0.00
0.0000	0.0000	698.3	0.0000	1123.9	1133.70	0.00
0.0758	0.6329	668.8	-1.1326	1044.5	1370.45	-82.08
0.0815	0.7188	662.9	-1.1780	1031.8	1416.65	-79.19
0.1983	0.7348	659.8	-0.8729	1006.2	1496.75	-6.03
0.2122	0.6517	665.9	-0.7486	1020.4	1442.19	-18.50
0.2151	0.4927	672.1	0.3875	1034.6	1390.01	9.59
0.2233	0.4010	678.5	0.4139	1048.8	1339.91	5.89
0.2234	0.3101	684.4	0.4314	1063.6	1291.56	3.44
0.2318	0.2119	690.4	0.4872	1077.2	1248.00	9.54
0.2385	0.1102	696.3	0.5471	1089.9	1208.92	21.88
0.3781	0.4322	684.3	-0.6064	1038.3	1355.43	7.13
0.3886	0.3507	690.4	-0.5337	1052.4	1307.66	0.60
0.3945	0.2682	696.2	-0.4904	1065.8	1264.41	-0.92
0.4048	0.1848	702.6	-0.5550	1081.4	1216.78	-6.33
0.5159	0.3120	696.7	-0.4070	1045.1	1314.07	27.81
0.6205	0.2768	703.2	-0.2474	1037.8	1320.19	52.68
0.6286	0.2143	709.6	-0.3364	1053.1	1270.44	34.56
0.6456	0.1390	715.6	-0.1764	1066.4	1228.82	31.15
0.6562	0.0721	690.5	4.2398	1030.2	1364.44	200.63
0.7017	0.2000	716.6	-0.4564	1048.4	1269.33	41.38
0.7253	0.1291	723.1	-0.2859	1061.7	1226.86	34.93
0.7428	0.0625	690.7	4.7434	1009.0	1422.02	263.90
0.7820	0.1764	723.7	-0.2567	1044.2	1267.21	51.96
0.7932	0.1192	729.7	-0.2342	1058.7	1222.59	36.33
0.8067	0.0585	704.0	3.4620	1018.4	1369.26	213.75
0.8668	0.0524	717.8	2.4565	1028.8	1315.98	164.13
1.0000	0.0000	768.4	0.0000	1067.5	1124.10	0.00
315.65 K						
0.0000	1.0000	638.5	0.0000	990.4	1596.60	0.00
0.0000	0.0000	700.2	0.0000	1133.9	1110.76	0.00
0.0758	0.6329	671.0	-1.126	1055.1	1338.79	-78.94
0.0815	0.7188	665.1	-1.168	1042.5	1383.39	-76.01
0.1983	0.7348	662.1	-0.875	1017.0	1460.16	-6.18
0.2122	0.6517	668.2	-0.756	1030.7	1408.75	-17.10
0.2151	0.4927	674.3	0.369	1045.3	1357.17	8.55
0.2233	0.4010	680.6	0.395	1059.4	1308.97	4.98
0.2234	0.3101	686.5	0.415	1074.0	1262.75	2.92

Tabla A.22. Continuación.

x_1	x_2	ρ	V^E	U	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.2318	0.2119	692.5	0.467	1087.6	1220.61	8.54
0.2385	0.1102	698.3	0.529	1100.1	1183.10	20.49
0.3781	0.4322	686.5	-0.611	1048.9	1323.92	5.87
0.3886	0.3507	692.5	-0.540	1062.9	1278.13	-0.26
0.3945	0.2682	698.4	-0.496	1076.1	1236.55	-1.70
0.4048	0.1848	704.7	-0.562	1091.6	1190.71	-6.94
0.5159	0.3120	698.9	-0.412	1055.3	1284.78	26.14
0.6205	0.2768	705.4	-0.252	1047.8	1290.97	50.15
0.6286	0.2143	711.8	-0.339	1063.1	1243.04	32.64
0.6456	0.1390	717.7	-0.182	1076.3	1202.74	29.07
0.6562	0.0721	692.7	4.187	1040.5	1333.12	192.01
0.7017	0.2000	718.8	-0.457	1058.2	1242.35	39.43
0.7253	0.1291	725.2	-0.289	1071.3	1201.35	33.04
0.7428	0.0625	693.0	4.685	1019.0	1389.62	253.81
0.7820	0.1764	725.9	-0.256	1053.4	1241.27	50.42
0.7932	0.1192	731.9	-0.234	1068.0	1197.78	34.80
0.8067	0.0585	706.3	3.420	1028.2	1339.07	205.64
0.8668	0.0524	720.1	2.429	1038.5	1287.54	157.51
1.0000	0.0000	770.6	0.0000	1084.3	1103.60	0.00
313.15 K						
0.0000	1.0000	640.9	0.0000	1001.7	1555.00	0.00
0.0000	0.0000	702.2	0.0000	1143.8	1088.53	0.00
0.0758	0.6329	679.1	-2.350	1079.6	1263.38	-120.04
0.0815	0.7188	673.2	-2.342	1065.6	1308.00	-115.44
0.1983	0.7348	664.5	-0.882	1027.9	1424.14	-6.20
0.2122	0.6517	670.5	-0.758	1041.4	1375.22	-16.28
0.2151	0.4927	676.6	0.352	1055.8	1325.82	8.47
0.2233	0.4010	682.9	0.381	1069.8	1279.32	4.79
0.2234	0.3101	688.7	0.398	1084.3	1234.86	2.72
0.2318	0.2119	694.7	0.450	1097.8	1194.35	8.06
0.2385	0.1102	700.4	0.509	1110.3	1157.98	19.16
0.3781	0.4322	688.8	-0.616	1059.3	1293.69	5.36
0.3886	0.3507	694.8	-0.545	1073.1	1249.73	-0.55
0.3945	0.2682	700.6	-0.504	1086.3	1209.56	-2.19
0.4048	0.1848	706.9	-0.568	1101.7	1165.50	-7.29
0.5159	0.3120	706.6	-1.216	1078.3	1217.12	-14.45
0.6205	0.2768	714.0	-1.079	1073.0	1216.34	1.66
0.6286	0.2143	719.9	-1.115	1086.1	1177.52	-7.97
0.6456	0.1390	695.1	3.256	1050.8	1302.82	152.56
0.6562	0.0721	701.2	3.237	1065.4	1256.29	137.27
0.7017	0.2000	727.5	-1.216	1080.9	1176.47	-1.98
0.7253	0.1291	695.4	3.720	1028.9	1358.40	213.13
0.7428	0.0625	702.3	3.710	1045.1	1303.52	189.42
0.7820	0.1764	734.1	-0.883	1077.4	1173.39	6.36

Tabla A.22. Continuación.

x_1	x_2	ρ	V^E	U	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.7932	0.1192	708.7	2.604	1037.9	1309.88	169.58
0.8067	0.0585	713.8	2.776	1052.5	1264.57	152.62
0.8668	0.0524	728.2	1.796	1062.9	1215.35	106.54
1.0000	0.0000	772.8	0.0000	1092.7	1083.70	0.00
310.65 K						
0.0000	1.0000	643.2	0.0000	1013.2	1514.40	0.00
0.0000	0.0000	704.1	0.0000	1153.6	1067.13	0.00
0.0758	0.6329	681.2	-2.3262	1090.0	1235.42	-114.61
0.0815	0.7188	675.4	-2.3200	1076.3	1278.11	-110.30
0.1983	0.7348	666.8	-0.8803	1038.3	1391.12	-4.12
0.2122	0.6517	672.8	-0.7599	1052.0	1342.90	-15.13
0.2151	0.4927	678.8	0.3359	1066.4	1295.27	8.33
0.2233	0.4010	685.1	0.3642	1080.4	1250.45	4.54
0.2234	0.3101	690.9	0.3809	1094.6	1207.99	2.74
0.2318	0.2119	696.8	0.4285	1108.1	1168.62	7.31
0.2385	0.1102	702.6	0.4871	1120.4	1133.76	17.95
0.3781	0.4322	691.0	-0.6181	1069.6	1264.68	5.25
0.3886	0.3507	697.0	-0.5505	1083.4	1222.17	-0.79
0.3945	0.2682	702.8	-0.5112	1096.4	1183.58	-2.46
0.4048	0.1848	709.1	-0.5771	1111.9	1140.57	-8.13
0.5159	0.3120	708.8	-1.2122	1088.4	1190.85	-14.41
0.6205	0.2768	716.3	-1.0731	1082.9	1190.52	1.26
0.6286	0.2143	722.1	-1.1089	1095.7	1153.29	-8.00
0.6456	0.1390	697.3	3.2172	1061.0	1273.81	146.26
0.6562	0.0721	703.4	3.1947	1075.6	1228.74	131.12
0.7017	0.2000	729.7	-1.2098	1090.5	1152.39	-2.29
0.7253	0.1291	697.7	3.6748	1038.8	1328.09	205.18
0.7428	0.0625	704.6	3.6648	1055.0	1274.98	181.91
0.7820	0.1764	736.3	-0.8755	1086.6	1150.03	6.14
0.7932	0.1192	711.0	2.5740	1047.6	1281.52	163.24
0.8067	0.0585	716.1	2.7437	1062.3	1237.48	146.35
0.8668	0.0524	730.5	1.7768	1072.4	1190.32	102.10
1.0000	0.0000	775.0	0.0000	1101.0	1064.40	0.00
308.15 K						
0.0000	1.0000	6455	0.0000	1024.6	1475.70	0.00
0.0000	0.0000	706.1	0.0000	1163.6	1045.94	0.00
0.0758	0.6329	683.4	-2.3008	1100.5	1208.21	-109.71
0.0815	0.7188	677.6	-2.2930	1086.8	1249.36	-105.46
0.1983	0.7348	669.1	-0.8784	1048.9	1358.24	-3.38
0.2122	0.6517	675.0	-0.7588	1062.8	1311.26	-14.63
0.2151	0.4927	681.1	0.3215	1077.1	1265.58	7.98
0.2233	0.4010	687.3	0.3519	1090.9	1222.50	4.32
0.2234	0.3101	693.1	0.3646	1105.1	1181.41	2.29

Tabla A.22. Continuación.

x_1	x_2	ρ	V^E	U	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.2318	0.2119	699.0	0.4149	1118.3	1143.83	6.92
0.2385	0.1102	704.6	0.4720	1130.6	1110.10	16.89
0.3781	0.4322	693.3	-0.6185	1080.2	1236.13	4.64
0.3886	0.3507	699.2	-0.5534	1093.8	1195.27	-1.20
0.3945	0.2682	704.9	-0.5158	1106.7	1158.12	-2.89
0.4048	0.1848	711.2	-0.5790	1122.0	1116.79	-8.36
0.5159	0.3120	711.0	-1.2037	1098.4	1165.56	-14.18
0.6205	0.2768	718.5	-1.0641	1092.7	1165.68	1.09
0.6286	0.2143	724.3	-1.1024	1105.6	1129.38	-8.34
0.6456	0.1390	699.6	3.1810	1071.3	1245.29	139.96
0.6562	0.0721	705.7	3.1572	1085.8	1201.91	125.31
0.7017	0.2000	731.9	-1.2005	1100.1	1128.93	-2.60
0.7253	0.1291	700.0	3.6300	1049.0	1298.10	197.05
0.7428	0.0625	706.9	3.6244	1065.0	1247.12	174.71
0.7820	0.1764	738.5	-0.8669	1096.1	1126.85	5.53
0.7932	0.1192	713.3	2.5453	1057.3	1254.05	157.31
0.8067	0.0585	718.3	2.7126	1072.1	1211.08	140.40
0.8668	0.0524	732.7	1.7594	1081.8	1166.08	98.07
1.0000	0.0000	777.2	0.0000	1109.4	1045.40	0.00
305.65 K						
0.0000	1.0000	647.8	0.0000	1035.7	1439.00	0.00
0.0000	0.0000	708.0	0.0000	1173.6	1025.38	0.00
0.0758	0.6329	679.1	-0.9604	1111.0	1192.84	-94.45
0.0815	0.7188	673.2	-0.9644	1097.5	1233.16	-89.65
0.1983	0.7348	664.5	0.3754	1059.8	1339.69	10.09
0.2122	0.6517	670.5	0.4922	1073.6	1293.89	-1.36
0.2151	0.4927	676.6	1.6113	1087.6	1249.38	19.87
0.2233	0.4010	682.9	1.6384	1101.4	1207.15	15.56
0.2234	0.3101	688.7	1.6621	1115.4	1166.91	12.91
0.2318	0.2119	694.7	1.7128	1128.6	1130.08	16.69
0.2385	0.1102	700.4	1.7733	1140.8	1096.90	25.57
0.3781	0.4322	688.8	0.4824	1090.7	1220.40	15.67
0.3886	0.3507	694.8	0.5492	1104.2	1180.34	9.30
0.3945	0.2682	700.6	0.5902	1116.9	1144.08	7.16
0.4048	0.1848	706.9	0.5222	1132.0	1103.79	1.36
0.5159	0.3120	706.6	-0.2484	1108.5	1151.62	-3.58
0.6205	0.2768	714.0	-0.2142	1102.5	1152.01	11.18
0.6286	0.2143	719.9	-0.2540	1115.4	1116.32	1.33
0.6456	0.1390	695.1	4.1055	1081.6	1229.77	145.92
0.6562	0.0721	701.2	4.0809	1095.9	1187.32	131.10
0.7017	0.2000	727.5	-0.4275	1109.6	1116.29	7.11
0.7253	0.1291	695.4	4.4897	1059.2	1281.79	201.90
0.7428	0.0625	702.3	4.4668	1075.0	1232.15	179.78
0.7820	0.1764	734.1	-0.1748	1105.4	1114.73	15.21

Tabla A.22. Continuación.

x_1	x_2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.7932	0.1192	708.7	3.3058	1067.1	1239.15	163.26
0.8067	0.0585	713.8	3.4688	1081.8	1197.00	146.17
0.8668	0.0524	728.2	2.4283	1091.2	1153.11	104.72
1.0000	0.0000	779.4	0.0000	1117.8	1026.90	0.00
303.15 K						
0.0000	1.0000	650.1	0.0000	1047.1	1402.90	0.00
0.0000	0.0000	710.0	0.0000	1183.6	1005.31	0.00
0.0758	0.6329	676.2	0.0885	1096.1	1230.68	-26.49
0.0815	0.7188	670.0	0.1340	1081.2	1276.68	-14.67
0.1983	0.7348	673.7	-0.8768	1070.8	1294.44	-3.68
0.2122	0.6517	679.6	-0.7603	1084.4	1251.30	-13.81
0.2151	0.4927	685.5	0.2957	1098.3	1209.28	7.37
0.2233	0.4010	691.7	0.3276	1112.0	1169.08	3.62
0.2234	0.3101	697.4	0.3371	1125.9	1131.13	1.82
0.2318	0.2119	703.2	0.3836	1139.0	1096.16	5.88
0.2385	0.1102	708.8	0.4423	1151.2	1064.51	14.65
0.3781	0.4322	697.7	-0.6200	1101.1	1181.99	3.57
0.3886	0.3507	703.6	-0.5589	1114.6	1144.02	-2.03
0.3945	0.2682	709.3	-0.5243	1127.3	1109.43	-3.81
0.4048	0.1848	715.4	-0.5859	1142.2	1071.32	-8.78
0.5159	0.3120	715.4	-1.1922	1118.6	1116.94	-14.14
0.6205	0.2768	716.7	-0.2655	1097.8	1157.62	40.15
0.6286	0.2143	722.9	-0.3504	1112.5	1117.63	24.99
0.6456	0.1390	728.6	-0.2082	1125.2	1083.94	21.21
0.6562	0.0721	7101	3.0858	1106.1	1150.97	114.79
0.7017	0.2000	722.8	0.3832	1091.7	1160.72	73.51
0.7253	0.1291	736.2	-0.3019	1119.4	1083.89	24.80
0.7428	0.0625	704.6	4.4107	1069.4	1240.82	208.17
0.7820	0.1764	731.5	0.3404	1086.4	1158.15	80.07
0.7932	0.1192	737.1	0.3728	1100.8	1119.41	64.04
0.8067	0.0585	742.9	0.4330	1114.8	1083.14	51.83
0.8668	0.0524	759.4	-0.4524	1126.1	1038.37	9.28
1.0000	0.0000	781.5	0.0000	1126.2	1008.70	0.00
300.65 K						
0.0000	1.0000	652.4	0.0000	1058.4	1368.30	0.00
0.0000	0.0000	712.0	0.0000	1193.6	985.83	0.00
0.0758	0.6329	689.8	-2.2269	1132.0	1131.30	-96.99
0.0815	0.7188	684.0	-2.2210	1118.8	1167.77	-93.40
0.1983	0.7348	675.9	-0.8759	1081.6	1264.39	-3.51
0.2122	0.6517	681.8	-0.7606	1095.1	1222.86	-13.33
0.2151	0.4927	687.7	0.2823	1109.0	1182.29	6.88
0.2233	0.4010	693.8	0.3175	1122.5	1143.86	3.50
0.2234	0.3101	699.5	0.3265	1136.2	1107.22	1.62
0.2318	0.2119	705.3	0.3710	1149.2	1073.49	5.41

Tabla A.22. Continuación.

x_1	x_2	ρ	V^E	U	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.2385	0.1102	710.9	0.4296	1161.3	1042.97	13.76
0.3781	0.4322	699.9	-0.6194	1111.5	1156.44	3.32
0.3886	0.3507	705.7	-0.5609	1124.9	1119.60	-2.41
0.3945	0.2682	711.4	-0.5286	1137.5	1086.37	-4.11
0.4048	0.1848	717.5	-0.5884	1152.3	1049.52	-9.10
0.5159	0.3120	717.6	-1.1855	1128.7	1093.72	-14.14
0.6205	0.2768	725.0	-1.0407	1122.4	1094.81	-0.17
0.6286	0.2143	730.7	-1.0816	1134.9	1062.37	-8.74
0.6456	0.1390	706.3	3.0765	1102.1	1165.51	123.13
0.6562	0.0721	712.3	3.0525	1116.2	1126.71	109.84
0.7017	0.2000	738.4	-1.1762	1128.9	1062.50	-3.52
0.7253	0.1291	706.9	3.5053	1079.7	1213.36	174.33
0.7428	0.0625	713.6	3.5052	1094.9	1168.81	155.17
0.7820	0.1764	745.0	-0.8412	1124.1	1062.17	4.76
0.7932	0.1192	720.1	2.4632	1086.9	1175.33	139.74
0.8067	0.0585	725.0	2.6266	1101.5	1136.67	124.20
0.8668	0.0524	739.3	1.7074	1110.28	1097.18	86.73
1.0000	0.0000	783.7	0.0000	1134.6	991.10	0.00
298.15 K						
0.0000	1.0000	654.7	.0.0000	1069.8	1334.50	0.00
0.0000	0.0000	713.9	0.0000	1203.7	966.70	0.00
0.0758	0.6329	691.9	-2.2037	1142.6	1106.98	-93.05
0.0815	0.7188	686.2	-2.1978	1129.5	1142.16	-89.49
0.1983	0.7348	678.2	-0.8738	1092.5	1235.13	-3.23
0.2122	0.6517	684.0	-0.7574	1106.0	1195.11	-12.78
0.2151	0.4927	689.9	0.2718	1119.7	1156.09	6.63
0.2233	0.4010	696.0	0.3077	1133.0	1119.19	3.41
0.2234	0.3101	701.6	0.3141	1146.8	1083.71	1.37
0.2318	0.2119	707.4	0.3581	1159.6	1051.14	4.86
0.2385	0.1102	712.9	0.4171	1171.7	1021.66	12.73
0.3781	0.4322	702.1	-0.6190	1122.0	1131.23	2.88
0.3886	0.3507	707.9	-0.5618	1135.3	1095.94	-2.52
0.3945	0.2682	713.5	-0.5311	1147.7	1063.79	-4.36
0.4048	0.1848	719.6	-0.5899	1162.5	1028.17	-9.36
0.5159	0.3120	719.7	-1.1787	1138.9	1071.07	-14.04
0.6205	0.2768	727.2	-1.0325	1132.3	1072.52	-0.41
0.6286	0.2143	732.9	-1.0743	1144.8	1041.06	-8.93
0.6456	0.1390	708.5	3.0445	1112.4	1140.47	118.07
0.6562	0.0721	714.5	3.0188	1126.5	1102.95	105.06
0.7017	0.2000	740.5	-1.1673	1138.5	1041.64	-3.61
0.7253	0.1291	709.2	3.4672	1089.9	1186.82	167.48
0.7428	0.0625	715.8	3.4685	1105.0	1144.03	149.07
0.7820	0.1764	747.2	-0.8328	1133.5	1041.63	4.51

Tabla A.22. Continuación.

x_1	x_2	ρ	V^E	U	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.7932	0.1192	722.4	2.4374	1096.944	1150.48	134.32
0.8067	0.0585	727.3	2.5996	1111.383	1113.21	119.25
0.8668	0.0524	741.5	1.6915	1119.750	1075.53	83.39
1.0000	0.0000	785.8	0.0000	1143.100	973.80	0.00
295.65 K						
0.0000	1.0000	656.9	0.0000	1081.4	1301.70	0.00
0.0000	0.0000	715.9	0.0000	1214.0	947.79	0.00
0.0758	0.6329	676.2	1.4245	1153.4	1111.47	-61.00
0.0815	0.7188	670.0	1.4556	1140.3	1147.71	-55.20
0.1983	0.7348	673.7	0.3270	1103.6	1218.57	8.95
0.2122	0.6517	679.6	0.4382	1116.8	1179.70	-0.64
0.2151	0.4927	685.5	1.5075	1130.5	1141.34	17.23
0.2233	0.4010	691.7	1.5407	1143.8	1105.08	13.36
0.2234	0.3101	697.4	1.5594	1157.3	1070.50	10.94
0.2318	0.2119	703.2	1.6075	1170.1	1038.55	13.68
0.2385	0.1102	708.8	1.6699	1182.1	1009.53	20.59
0.3781	0.4322	697.7	0.4361	1132.7	1117.04	12.87
0.3886	0.3507	703.6	0.4949	1145.8	1082.53	7.11
0.3945	0.2682	709.3	0.5321	1158.1	1051.06	4.79
0.4048	0.1848	715.4	0.4688	1172.7	1016.22	-0.61
0.5159	0.3120	715.4	-0.2609	1149.1	1058.46	-4.38
0.6205	0.2768	716.7	0.5653	1142.3	1069.21	17.85
0.6286	0.2143	722.9	0.4787	1154.7	1037.44	8.13
0.6456	0.1390	728.6	0.6117	1122.7	1088.71	85.91
0.6562	0.0721	710.1	3.9019	1136.7	1089.84	110.61
0.7017	0.2000	722.8	1.1412	1148.2	1049.20	24.30
0.7253	0.1291	736.2	0.4397	1100.3	1121.73	121.71
0.7428	0.0625	704.6	5.1417	1115.2	1140.99	164.39
0.7820	0.1764	731.5	1.0209	1142.9	1046.50	29.24
0.7932	0.1192	737.1	1.0480	1106.9	1107.18	110.07
0.8067	0.0585	742.9	1.1009	1121.3	1070.57	94.79
0.8668	0.0524	759.4	0.1563	1129.2	1032.62	58.46
1.0000	0.0000	788.0	0.0000	1151.6	956.80	0.00
293.15 K						
0.0000	1.0000	659.2	0.0000	1093.1	1269.70	0.00
0.0000	0.0000	717.8	0.0000	1224.3	929.39	0.00
0.0758	0.6329	696.1	-2.1585	1164.3	1059.62	-85.93
0.0815	0.7188	690.5	-2.1530	1151.4	1092.34	-82.51
0.1983	0.7348	682.7	-0.8687	1114.9	1178.33	-3.22
0.2122	0.6517	688.5	-0.7536	1127.8	1141.78	-11.62
0.2151	0.4927	694.3	0.2511	1141.4	1105.48	6.15

Tabla A.22. Continuación.

x_1	x_2	ρ	V^E	U	κ_S	$\delta\kappa_S$
		$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
0.2233	0.4010	700.2	0.2900	1154.7	1071.03	2.84
0.2234	0.3101	705.8	0.2938	1168.0	1038.35	1.10
0.2318	0.2119	711.6	0.3328	1180.8	1007.92	4.01
0.2385	0.1102	717.0	0.3911	1192.7	980.29	10.93
0.3781	0.4322	706.4	-0.6172	1143.3	1082.86	2.39
0.3886	0.3507	712.2	-0.5627	1156.4	1049.86	-2.99
0.3945	0.2682	717.8	-0.5369	1168.8	1019.78	-5.04
0.4048	0.1848	723.8	-0.5913	1183.2	986.88	-9.65
0.5159	0.3120	724.0	-1.1635	1159.5	1027.20	-13.81
0.6205	0.2768	731.5	-1.0168	1152.5	1029.12	-1.05
0.6286	0.2143	737.1	-1.0583	1164.9	999.70	-9.29
0.6456	0.1390	712.9	2.9815	1133.3	1092.16	108.64
0.6562	0.0721	718.8	2.9549	1147.1	1057.17	96.29
0.7017	0.2000	744.8	-1.1488	1158.1	1001.01	-3.88
0.7253	0.1291	713.7	3.3925	1110.8	1135.36	154.35
0.7428	0.0625	720.2	3.3958	1125.5	1095.95	137.43
0.7820	0.1764	751.5	-0.8156	1152.6	1001.65	3.95
0.7932	0.1192	726.8	2.3879	1117.0	1102.59	124.24
0.8067	0.0585	731.7	2.5476	1131.4	1067.71	109.85
0.8668	0.0524	745.9	1.6610	1138.9	1033.54	77.11
1.0000	0.0000	790.1	0.0000	1160.3	940.00	0.00
290.65 K						
0.0000	1.0000	661.4	0.0000	1106.0	1235.90	0.00
0.0000	0.0000	719.7	0.0000	1234.9	911.03	0.00
0.0758	0.6329	698.2	-2.1343	1175.3	1036.87	-80.71
0.0815	0.7188	692.6	-2.1285	1162.6	1068.08	-77.47
0.1983	0.7348	684.9	-0.8646	1126.1	1151.16	-1.03
0.2122	0.6517	690.7	-0.7500	1139.0	1115.98	-9.38
0.2151	0.4927	696.4	0.2418	1152.5	1080.88	7.12
0.2233	0.4010	702.3	0.2835	1165.5	1048.02	3.96
0.2234	0.3101	707.9	0.2868	1178.8	1016.39	1.87
0.2318	0.2119	713.6	0.3255	1191.4	987.17	4.46
0.2385	0.1102	719.0	0.3828	1203.3	960.41	10.65
0.3781	0.4322	708.6	-0.6142	1154.1	1059.48	3.36
0.3886	0.3507	714.3	-0.5606	1167.2	1027.44	-2.33
0.3945	0.2682	719.9	-0.5369	1179.5	998.44	-4.59
0.4048	0.1848	725.8	-0.5896	1193.7	966.85	-9.20
0.5159	0.3120	726.1	-1.1520	1169.9	1006.07	-12.68
0.6205	0.2768	733.6	-1.0075	1162.7	1008.18	-0.46
0.6286	0.2143	739.2	-1.0487	1175.0	979.69	-8.74
0.6456	0.1390	715.1	2.9519	1143.9	1068.72	104.56
0.6562	0.0721	720.9	2.9267	1157.5	1035.18	92.61

Tabla A.22. Continuación.

x_1	x_2	ρ	V^E	U	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.7017	0.2000	746.9	-1.1385	1168.1	981.12	-3.56
0.7253	0.1291	715.9	3.3588	1121.5	1110.53	148.58
0.7428	0.0625	722.4	3.3624	1135.8	1072.82	132.30
0.7820	0.1764	753.6	-0.8053	1162.3	982.27	4.27
0.7932	0.1192	729.0	2.3666	1127.2	1079.53	119.97
0.8067	0.0585	733.8	2.5258	1141.4	1045.84	105.81
0.8668	0.0524	748.0	1.6491	1148.6	1013.25	74.46
1.0000	0.0000	792.3	0.0000	1169.1	923.40	0.00
288.15 K						
0.0000	1.0000	663.6	0.0000	1118.3	1205.00	0.00
0.0000	0.0000	721.6	0.0000	1245.4	893.38	0.00
0.0758	0.6329	700.9	-2.2426	1186.4	1013.51	46.52
0.0815	0.7188	0.695.3	-2.2363	1173.8	1043.63	10.64
0.1983	0.7348	687.8	-0.9761	1137.3	1124.12	27.73
0.2122	0.6517	693.5	-0.8620	1150.0	1090.24	49.17
0.2151	0.4927	699.2	0.1102	1163.4	1056.57	131.77
0.2233	0.4010	705.1	0.1481	1176.3	1024.91	164.35
0.2234	0.3101	710.7	0.1443	1189.4	994.52	201.14
0.2318	0.2119	716.3	0.1785	1201.9	966.30	241.82
0.2385	0.1102	721.7	0.2351	1214.1	939.90	287.68
0.3781	0.4322	711.4	-0.7187	1164.7	1036.14	84.19
0.3886	0.3507	717.1	-0.6669	1177.7	1005.28	108.94
0.3945	0.2682	722.6	-0.6489	1190.0	977.13	139.22
0.4048	0.1848	728.5	-0.7020	1203.9	946.88	166.11
0.5159	0.3120	728.5	-1.1815	1180.2	985.38	61.55
0.6205	0.2768	736.4	-1.0823	1172.6	987.47	43.42
0.6286	0.2143	742.0	-1.1241	1184.9	959.81	58.44
0.6456	0.1390	717.9	2.8331	1154.1	1045.74	192.56
0.6562	0.0721	7237	2.8042	1167.6	1013.47	205.05
0.7017	0.2000	749.7	-1.2036	1177.9	961.34	38.29
0.7253	0.1291	718.8	3.2421	1131.7	1086.16	205.09
0.7428	0.0625	725.3	3.2469	1145.8	1050.14	210.62
0.7820	0.1764	756.3	-0.8624	1171.7	963.05	22.05
0.7932	0.1192	731.9	2.2708	1137.1	1056.55	152.88
0.8067	0.0585	736.7	2.4293	1151.2	1024.19	159.41
0.8668	0.0524	750.8	1.5705	1158.0	993.10	106.29
1.0000	0.0000	794.4	0.0000	1178.2	906.80	0.00

Tabla A.23. Influencia de la composición sobre los índices de refracción, las variaciones de índices de refracción de la mezcla ternaria x_1 etanol (1)+ x_2 *n*-hexano (2) – (1- x_1 - x_2) agua (3) en el intervalo de temperaturas (318.15- 288.15) K.

x_1	x_2	n_D				δn_D			
		318.15	308.15	298.15	288.15	318.15	308.15	298.15	288.15
T / K									
0.0000	1.0000	1.36052	1.36652	1.37211	1.37777	0.00000	0.00000	0.00000	0.00000
0.0000	0.0000	1.32976	1.33125	1.33259	1.33353	0.00000	0.00000	0.00000	0.00000
0.0158	0.0080	1.33253	1.33351	1.33495	1.33586	0.00211	0.00155	0.00171	0.00164
0.0408	0.0364	1.33631	1.33761	1.33899	1.34015	0.00451	0.00407	0.00396	0.00392
0.0459	0.4269	1.35651	1.36211	1.36801	1.37365	0.01263	0.01469	0.01737	0.01994
0.0780	0.0177	1.34046	1.34257	1.34425	1.34624	0.00847	0.00881	0.00896	0.00972
0.0860	0.0400	1.34239	1.34414	1.34612	1.34783	0.00955	0.00941	0.00974	0.01008
0.0935	0.2969	1.35490	1.36642	1.37232	1.37753	0.01403	0.02246	0.02556	0.02815
0.1175	0.1070	1.34995	1.34857	1.34042	1.35296	0.01441	0.01074	0.00054	0.01129
0.6297	0.0812	1.35400	1.35871	1.36277	1.36698	0.00878	0.00977	0.01023	0.01106
0.6388	0.0820	1.35393	1.35882	1.36294	1.36880	0.00849	0.00964	0.01012	0.01257
0.9145	0.0251	1.35195	1.35677	1.37087	1.36513	0.00262	0.00312	0.01294	0.00314
1.0000	0.0000	1.35031	1.35477	1.35922	1.36345	0.00000	0.00000	0.00000	0.00000

Tabla A.24. Influencia de la composición sobre la densidad, el volumen de exceso, la velocidad del sonido, la compresibilidad isoentrópica, la variación de la compresibilidad isoentrópica de la mezcla ternaria x_1 etanol (1) - x_2 *n*-hexano (2) – (1- x_1 - x_2) agua (3) en el intervalo de temperaturas (318.15- 288.15) K.

x_1	x_2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
318.15 K						
0.0000	1.0000	636.2	0.0000	979.3	1638.60	0.00
0.0000	0.0000	990.2	0.0000	1536.5	427.70	0.00
0.0408	0.0364	978.2	-2.0391	1561.6	419.18	-81.67
0.0982	0.8291	637.1	1.8011	981.7	1628.44	126.55
0.1996	0.7597	639.7	2.2720	978.9	1631.18	140.93
0.2705	0.6723	647.5	1.9985	978.0	1614.30	179.19
0.3499	0.5952	668.3	-0.2441	979.9	1557.94	159.49
0.5246	0.4255	683.2	0.3738	994.0	1481.20	163.51
0.6660	0.2872	705.3	0.1099	1012.4	1383.22	132.04
0.7149	0.2476	710.5	0.2608	1016.1	1362.94	124.85
0.7612	0.2038	719.8	0.1187	1025.1	1321.97	103.82
1.0000	0.0000	768.4	0.0000	1067.5	1141.91	0.00
315.65 K						
0.0000	1.0000	638.6	0.0000	990.4	1596.55	0.00

Tabla A.24. Continuación.

x_1	x_2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
0.0000	0.0000	991.2	0.0000	1533.2	429.16	0.00
0.0408	0.0364	979.1	-2.0190	1560.4	419.45	-79.66
0.0982	0.8291	639.4	1.7768	992.9	1586.22	122.98
0.1996	0.7597	642.0	2.2403	990.2	1588.48	137.87
0.2705	0.6723	650.0	1.9543	989.2	1572.20	175.72
0.3499	0.5952	671.3	-0.3515	991.1	1516.47	156.43
0.5246	0.4255	685.6	0.3543	1004.5	1445.54	165.78
0.6660	0.2872	707.7	0.0977	1022.5	1351.48	137.80
0.7149	0.2476	712.8	0.2525	1025.8	1333.18	132.80
0.7612	0.2038	722.1	0.1114	1034.6	1293.66	113.14
1.0000	0.0000	770.6	0.0000	1084.3	1103.60	0.00
313.15 K						
0.0000	1.0000	640.9	0.0000	1001.7	1555.00	0.00
0.0000	0.0000	992.2	0.0000	1529.3	430.91	0.00
0.0408	0.0364	980.2	-2.0017	1558.4	420.06	-78.34
0.0982	0.8291	641.8	1.7559	1003.9	1545.72	118.75
0.1996	0.7597	644.4	2.2095	1001.5	1547.11	131.99
0.2705	0.6723	652.4	1.9185	1000.2	1531.84	168.61
0.3499	0.5952	674.5	-0.4744	1002.0	1476.59	148.19
0.5246	0.4255	688.0	0.3343	1015.1	1410.46	158.80
0.6660	0.2872	710.1	0.0850	1032.5	1320.99	132.50
0.7149	0.2476	715.2	0.2420	1035.5	1303.81	127.97
0.7612	0.2038	724.5	0.1044	1044.2	1265.87	108.99
1.0000	0.0000	772.8	0.0000	1092.7	1083.70	0.00
310.65 K						
0.0000	1.0000	643.2	0.0000	1013.2	1514.40	0.00
0.0000	0.0000	993.2	0.0000	1525.0	432.93	0.00
0.0408	0.0364	981.2	-1.9837	1556.1	420.86	-77.15
0.0982	0.8291	644.2	1.7353	1015.0	1506.61	115.06
0.1996	0.7597	646.8	2.1811	1012.7	1507.35	126.84
0.2705	0.6723	654.9	1.8824	1011.4	1492.57	161.75
0.3499	0.5952	677.8	-0.6140	1012.9	1437.92	140.34
0.5246	0.4255	690.5	0.3156	1025.4	1377.37	153.02
0.6660	0.2872	712.5	0.0730	1042.5	1291.40	127.33
0.7149	0.2476	717.5	0.2332	1045.4	1275.13	123.07
0.7612	0.2038	726.8	0.0969	1053.7	1239.17	105.19
1.0000	0.0000	775.0	0.0000	1101.0	1064.40	0.00
308.15 K						
0.0000	1.0000	645.5	0.0000	1024.6	1475.70	0.00
0.0000	0.0000	994.0	0.0000	1520.3	435.26	0.00

Tabla A.24. Continuación.

x_1	x_2	ρ	V^E	U	κ_s	$\delta\kappa_s$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.0408	0.0364	982.1	-1.9650	1553.7	421.76	-76.20
0.0982	0.8291	646.5	1.7169	1026.3	1468.43	110.77
0.1996	0.7597	649.2	2.1547	1024.0	1468.85	121.54
0.2705	0.6723	657.3	1.8494	1022.6	1454.71	155.00
0.3499	0.5952	682.0	-0.9014	1024.0	1398.07	130.12
0.5246	0.4255	692.9	0.3009	1035.8	1345.04	147.07
0.6660	0.2872	714.8	0.0638	1052.5	1262.83	122.47
0.7149	0.2476	719.9	0.2252	1055.2	1247.56	118.61
0.7612	0.2038	729.1	0.0907	1063.3	1212.94	101.27
1.0000	0.0000	777.2	0.0000	1109.4	1045.40	0.00
305.65 K						
0.0000	1.0000	647.8	0.0000	1035.7	1439.00	0.00
0.0000	0.0000	994.9	0.0000	1515.1	437.88	0.00
0.0408	0.0364	983.0	-1.9467	1550.7	423.05	-75.25
0.0982	0.8291	648.9	1.6942	1037.4	1431.95	106.20
0.1996	0.7597	651.6	2.1251	1035.3	1431.81	115.84
0.2705	0.6723	659.7	1.8182	1033.8	1418.30	147.99
0.3499	0.5952	685.7	-1.0952	1035.1	1361.14	121.26
0.5246	0.4255	695.2	0.2837	1046.4	1313.43	140.55
0.6660	0.2872	717.2	0.0509	1062.5	1235.02	117.31
0.7149	0.2476	722.2	0.2164	1065.1	1220.59	113.77
0.7612	0.2038	731.4	0.0846	1073.0	1187.54	97.26
1.0000	0.0000	779.4	0.0000	1117.8	1026.90	0.00
303.15 K						
0.0000	1.0000	650.1	0.0000	1047.1	1402.90	0.00
0.0000	0.0000	995.7	0.0000	1509.4	440.80	0.00
0.0408	0.0364	983.9	-1.9288	1547.4	424.45	-74.48
0.0982	0.8291	651.2	1.6771	1048.5	1396.76	102.60
0.1996	0.7597	653.9	2.1007	1046.4	1396.58	111.62
0.2705	0.6723	662.1	1.7903	1044.8	1383.56	142.35
0.3499	0.5952	689.2	-1.2601	1046.2	1325.44	113.31
0.5246	0.4255	697.6	0.2696	1057.	1282.83	134.76
0.6660	0.2872	719.5	0.0424	1072.6	1207.91	112.60
0.7149	0.2476	724.5	0.2101	1074.8	1194.81	109.87
0.7612	0.2038	733.7	0.0792	1082.7	1162.68	93.54
1.0000	0.0000	781.5	0.0000	1126.2	1008.70	0.00
300.65 K						
0.0000	1.0000	652.4	0.0000	1058.4	1368.30	0.00
0.0000	0.0000	996.4	0.0000	1503.4	444.05	0.00
0.0408	0.0364	984.6	-1.9104	1543.7	426.15	-73.81
0.0982	0.8291	653.5	1.6586	1059.7	1362.49	98.48
0.1996	0.7597	656.3	2.0744	1057.7	1362.05	106.72

Tabla A.24. Continuación.

x_1	x_2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.2705	0.6723	664.4	1.7654	1056.0	1349.61	136.21
0.3499	0.5952	692.1	-1.3538	1057.3	1292.21	106.63
0.5246	0.4255	700.0	0.2565	1067.6	1253.44	129.13
0.6660	0.2872	721.8	0.0321	1082.6	1181.83	107.99
0.7149	0.2476	726.7	0.2029	1084.6	1169.52	105.57
0.7612	0.2038	735.9	0.0748	1092.2	1138.94	90.11
1.0000	0.0000	783.7	0.0000	1134.6	991.10	0.00
298.15 K						
0.0000	1.0000	654.7	0.0000	1069.8	1334.50	0.00
0.0000	1.0000	997.0	0.0000	1496.8	447.62	0.00
0.0000	0.0000	985.3	-1.8921	1539.8	428.02	-73.30
0.0408	0.0364	655.8	1.6402	1071.0	1329.23	94.58
0.0982	0.8291	658.6	2.0490	1069.0	1328.58	102.15
0.1996	0.7597	666.8	1.7435	1067.3	1316.60	130.33
0.2705	0.6723	694.8	-1.4081	1068.5	1260.54	100.87
0.3499	0.5952	702.3	0.2426	1078.2	1224.77	123.72
0.5246	0.4255	724.1	0.0237	1092.8	1156.36	103.58
0.6660	0.2872	729.0	0.1960	1094.6	1144.79	101.46
0.7149	0.2476	738.2	0.0690	1102.0	1115.38	86.50
0.7612	0.2038	997.0	0.0000	1496.8	447.62	0.00
1.0000	0.0000	785.8	0.0000	1143.1	973.80	0.00
295.65 K						
0.0000	1.0000	656.9	0.0000	1081.4	1301.70	0.00
0.0000	0.0000	997.7	0.0000	1489.9	451.53	0.00
0.0408	0.0364	986.0	-1.8734	1535.5	430.11	-72.93
0.0982	0.8291	660.9	1.1250	1080.4	1296.19	90.25
0.1996	0.7597	669.1	0.6318	1078.6	1284.55	86.40
0.2705	0.6723	697.2	-2.5873	1079.7	1230.21	70.48
0.3499	0.5952	692.9	-0.8021	1084.0	1228.21	93.90
0.5246	0.4255	711.7	-0.6448	1092.5	1177.00	98.69
0.6660	0.2872	726.4	0.0146	1102.9	1131.59	99.41
0.7149	0.2476	731.3	0.1897	1104.5	1120.79	97.61
0.7612	0.2038	740.5	0.0645	1111.7	1092.58	83.21
1.0000	0.0000	788.0	0.0000	1151.6	956.80	0.00
293.15 K						
0.0000	1.0000	659.2	0.0000	1093.1	1269.70	0.00
0.0000	0.0000	998.2	0.0000	1482.5	455.80	0.00
0.0408	0.0364	986.6	-1.8548	1531.0	432.37	-72.76
0.0982	0.8291	660.4	1.6025	1093.9	1265.26	87.25
0.1996	0.7597	663.2	1.9989	1092.0	1264.39	93.78
0.2705	0.6723	671.4	1.7001	1090.1	1253.26	119.39

Tabla A.24. Continuación.

x_1	x_2	ρ	V^E	U	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.3499	0.5952	699.6	-1.4257	1091.1	1200.68	91.11
0.5246	0.4255	706.9	0.2149	1099.7	1169.47	113.42
0.6660	0.2872	728.7	0.0047	1113.3	1107.14	95.17
0.7149	0.2476	733.5	0.1825	1114.7	1096.98	93.60
0.7612	0.2038	742.7	0.0597	1121.6	1070.16	79.98
1.0000	0.0000	790.1	0.0000	1160.3	940.00	0.00
290.65 K						
0.0000	1.0000	661.4	0.0000	1106.0	1235.90	0.00
0.0000	0.0000	998.7	0.0000	1474.6	460.44	0.00
0.0408	0.0364	987.1	-1.8353	1526.4	434.80	-72.72
0.0982	0.8291	662.7	1.5849	1105.5	1234.64	85.81
0.1996	0.7597	665.5	1.9746	1103.6	1233.60	91.66
0.2705	0.6723	673.6	1.6825	1101.7	1222.96	115.92
0.3499	0.5952	701.8	-1.4100	1102.3	1172.60	88.59
0.5246	0.4255	709.2	0.2055	1110.6	1143.10	109.83
0.6660	0.2872	731.0	-0.0004	1123.6	1083.47	91.99
0.7149	0.2476	735.8	0.1790	1124.8	1074.17	90.80
0.7612	0.2038	744.9	0.0579	1131.6	1048.35	77.48
1.0000	0.0000	792.3	0.0000	1169.1	923.40	0.00
288.15 K						
0.0000	1.0000	663.6	0.0000	1118.3	1205.00	0.00
0.0000	0.0000	999.1	0.0000	1466.4	465.46	0.00
0.0408	0.0364	988.3	-1.8323	1521.3	437.17	-73.17
0.0982	0.8291	665.5	1.4537	1116.9	1204.42	82.58
0.1996	0.7597	668.4	1.8441	1114.9	1203.56	88.30
0.2705	0.6723	676.5	1.5597	1113.3	1192.45	110.48
0.3499	0.5952	700.4	-0.9160	1117.1	1143.89	83.88
0.5246	0.4255	719.2	-0.7328	1124.2	1100.12	88.51
0.6660	0.2872	733.9	-0.0773	1133.8	1059.95	88.20
0.7149	0.2476	738.7	0.0967	1135.3	1050.08	86.07
0.7612	0.2038	738.6	0.8730	1134.8	1051.27	99.19
1.0000	0.0000	794.4	0.0000	1178.2	906.80	0.00

A. Tablas de Propiedad.

Tabla A.25. Influencia de la composición sobre los índices de refracción, las variaciones de índices de refracción de la mezcla ternaria x_1 etanol (1) + x_2 *n*-heptano (2) + $(1-x_1-x_2)$ agua (3) en el intervalo de temperaturas (318.15- 288.15) K.

x_1	x_2	n_D				δn_D			
		318.15	308.15	298.15	288.15	318.15	308.15	298.15	288.15
T / K									
0.0000	1.0000	1.36052	1.36652	1.37211	1.37777	0.00000	0.00000	0.00000	0.00000
0.0000	0.0000	1.32976	1.33125	1.33259	1.33353	0.00000	0.00000	0.00000	0.00000
0.1278	0.8021	1.37240	1.37898	1.38383	1.38978	0.00427	0.00581	0.00558	0.00675
0.1700	0.7541	1.36916	1.37583	1.38382	1.38790	0.00230	0.00400	0.00698	0.00634
0.2517	0.6862	1.36833	1.37375	1.38103	1.38853	0.00282	0.00329	0.00558	0.00839
0.2665	0.0590	1.35336	1.35888	1.36329	1.36808	0.01543	0.01846	0.02055	0.02331
0.4643	0.4805	1.36490	1.37016	1.37635	1.38074	0.00419	0.00468	0.00609	0.00596
0.4944	0.4592	1.36490	1.36964	1.37513	1.38015	0.00452	0.00448	0.00518	0.00568
0.5827	0.3665	1.36255	1.36741	1.37278	1.37755	0.00448	0.00467	0.00537	0.00572
0.6641	0.3016	1.36005	1.36520	1.37046	1.37527	0.00320	0.00370	0.00430	0.00470
0.6679	0.2980	1.35991	1.36502	1.36669	1.37514	0.00314	0.00360	0.00061	0.00465
0.6822	0.2886	1.36028	1.36511	1.37000	1.37479	0.00364	0.00381	0.00404	0.00441
0.6963	0.0418	1.35448	1.35915	1.36352	1.36783	0.00852	0.00948	0.01021	0.01112
0.7075	0.2571	1.35883	1.36392	1.36556	1.37413	0.00307	0.00355	0.00058	0.00479
0.7473	0.2163	1.35764	1.36256	1.36644	1.37251	0.00288	0.00324	0.00256	0.00431
0.7668	0.1961	1.35758	1.36237	1.36735	1.37186	0.00332	0.00357	0.00401	0.00422
0.7771	0.1904	1.35667	1.36175	1.36662	1.37155	0.00246	0.00298	0.00331	0.00393
0.8070	0.1514	1.35577	1.36052	1.36527	1.37019	0.00268	0.00294	0.00321	0.00390
0.8343	0.1320	1.35565	1.36031	1.36492	1.36924	0.00286	0.00303	0.00316	0.00323
0.8468	0.1220	1.35472	1.35958	1.35769	1.36866	0.00212	0.00249	-0.00388	0.00285
0.8792	0.0877	1.35356	1.35838	1.36301	1.36768	0.00182	0.00219	0.00239	0.00285
0.8906	0.0744	1.35365	1.35826	1.36290	1.36713	0.00227	0.00245	0.00268	0.00272
0.9442	0.0256	1.35210	1.35645	1.36102	1.36514	0.00179	0.00175	0.00194	0.00190
0.9591	0.0086	1.35116	1.35593	1.36060	1.36491	0.00130	0.00170	0.00202	0.00220
1.0000	0.0000	1.35031	1.35477	1.35922	1.36345	0.00000	0.00000	0.00000	0.00000

Tabla A.26. Influencia de la composición sobre la densidad, el volumen de exceso, la velocidad del sonido, la compresibilidad isoentrópica, la variación de la compresibilidad isoentrópica de la mezcla ternaria x_1 etanol (1) + x_2 *n*-heptano (2) + $(1-x_1-x_2)$ agua (3) en el intervalo de temperaturas (323.15-288.15) K.

x_1	x_2	ρ	V^E	U	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
318.15 K						
0.0000	1.0000	662.4	0.0000	1043.0	1387.69	0.00
0.0000	0.0000	990.2	0.0000	1536.6	427.70	0.00
0.1278	0.8021	663.6	1.6270	1036.5	1402.54	113.58

Tabla A.26. Continuación.

x_1	x_2	ρ	V^E	u	K_S	δK_S
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.1700	0.7541	663.7	2.0631	1036.3	1402.92	129.88
0.4944	0.4592	696.5	0.0186	1033.4	1344.24	122.62
0.5827	0.3665	706.6	-0.0421	1037.1	1315.48	119.77
0.6641	0.3016	714.1	-0.0227	1038.9	1297.34	105.80
0.6679	0.2980	715.3	-0.1128	1039.9	1292.82	101.99
0.6822	0.2886	715.9	-0.0487	1039.6	1292.44	100.42
0.7473	0.2163	727.2	-0.1289	1046.8	1254.86	85.81
0.7668	0.1961	730.0	-0.0836	1048.6	1245.63	81.96
0.7771	0.1904	731.0	-0.1067	1048.9	1243.14	77.67
0.8070	0.1514	738.7	-0.1595	1056.0	1213.71	64.27
0.8343	0.1320	741.2	-0.0751	1056.4	1208.91	58.60
0.8468	0.1220	742.9	-0.0624	1057.6	1203.25	53.60
0.8906	0.0744	753.2	-0.0748	1067.1	1165.75	30.54
0.9442	0.0256	764.6	-0.0675	1077.8	1125.71	-0.98
0.9591	0.0086	773.3	-0.3834	1094.9	1078.59	-42.38
1.0000	0.0000	768.4	0.0000	1067.5	1141.91	0.00
315.65 K						
0.0000	1.0000	664.6	0.0000	1053.8	1355.05	0.00
0.0000	0.0000	991.2	0.0000	1533.2	429.16	0.00
0.1278	0.8021	665.8	1.6073	1047.3	1369.27	111.26
0.1700	0.7541	665.9	2.0416	1046.7	1370.55	128.51
0.4944	0.4592	698.8	-0.0015	1043.8	1313.23	125.42
0.5827	0.3665	708.9	-0.0562	1047.2	1286.23	124.66
0.6641	0.3016	716.3	-0.0348	1048.9	1268.86	112.47
0.6679	0.2980	717.5	-0.1234	1049.7	1264.87	109.22
0.6822	0.2886	718.1	-0.0596	1049.3	1264.67	108.08
0.7473	0.2163	729.4	-0.1383	1056.4	1228.47	94.96
0.7668	0.1961	732.2	-0.0910	1058.	1219.70	91.67
0.7771	0.1904	733.2	-0.1120	1058.1	1217.43	87.80
0.8070	0.1514	740.9	-0.1646	1065.2	1189.37	75.64
0.8343	0.1320	743.4	-0.0789	1065.5	1184.73	70.56
0.8468	0.1220	745.1	-0.0657	1066.6	1179.61	66.24
0.8906	0.0744	755.4	-0.0771	1076.0	1143.34	44.52
0.9442	0.0256	766.7	-0.0681	1086.5	1104.83	15.00
0.9591	0.0086	775.5	-0.3834	1103.5	1058.74	-25.36
1.0000	0.0000	770.6	0.0000	1084.3	1103.60	0.00
313.15 K						
0.0000	1.0000	666.7	0.0000	1064.3	1324.12	0.00
0.0000	0.0000	992.2	0.0000	1529.3	430.91	0.00
0.1278	0.8021	668.0	1.5833	1057.7	1337.91	107.15
0.1700	0.7541	668.2	2.0132	1057.4	1338.58	123.13
0.4944	0.4592	701.1	-0.0229	1054.1	1283.58	119.79
0.5827	0.3665	711.2	-0.0744	1057.3	1257.72	119.07

Tabla A.26. Continuación.

x_1	x_2	ρ	V^E	u	K_S	δK_S
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.6641	0.3016	718.6	-0.0485	1058.5	1241.93	108.11
0.6679	0.2980	719.8	-0.1375	1059.4	1237.70	104.58
0.6822	0.2886	720.4	-0.0737	1059.1	1237.37	103.33
0.7473	0.2163	731.7	-0.1477	1065.8	1203.10	91.19
0.7668	0.1961	734.5	-0.0996	1067.4	1194.72	88.05
0.7771	0.1904	735.5	-0.1210	1067.7	1192.44	84.21
0.8070	0.1514	743.2	-0.1715	1074.4	1165.55	72.59
0.8343	0.1320	745.7	-0.0859	1074.6	1161.20	67.75
0.8468	0.1220	747.3	-0.0707	1075.6	1156.54	63.85
0.8906	0.0744	757.7	-0.0811	1084.8	1121.43	42.68
0.9442	0.0256	769.0	-0.0700	1095.0	1084.48	14.29
0.9591	0.0086	777.7	-0.3828	1111.6	1039.87	-24.81
1.0000	0.0000	772.8	0.0000	1092.7	1083.70	0.00
310.65 K						
0.0000	1.0000	668.9	0.0000	1075.0	1293.68	0.00
0.0000	0.0000	993.2	0.0000	1525.0	432.93	0.00
0.1278	0.8021	670.2	1.5633	1068.4	1306.89	102.87
0.1700	0.7541	670.4	1.9891	1068.1	1307.43	118.07
0.4944	0.4592	703.5	-0.0429	1064.3	1254.86	114.49
0.5827	0.3665	713.5	-0.0901	1067.3	1230.08	113.73
0.6641	0.3016	720.9	-0.0603	1068.3	1215.40	103.52
0.6679	0.2980	722.1	-0.1479	1069.1	1211.56	100.34
0.6822	0.2886	722.7	-0.0842	1068.8	1211.23	99.09
0.7473	0.2163	734.0	-0.1574	1075.3	1178.24	87.26
0.7668	0.1961	736.8	-0.1085	1076.9	1170.21	84.24
0.7771	0.1904	737.8	-0.1297	1077.1	1168.26	80.76
0.8070	0.1514	745.5	-0.1770	1083.5	1142.51	69.66
0.8343	0.1320	747.9	-0.0917	1083.7	1138.29	64.90
0.8468	0.1220	749.6	-0.0750	1084.6	1134.04	61.35
0.8906	0.0744	759.9	-0.0845	1093.5	1100.43	41.08
0.9442	0.0256	771.2	-0.0715	1103.4	1064.87	13.64
0.9591	0.0086	780.0	-0.3826	1120.4	1021.36	-24.61
1.0000	0.0000	775.0	0.0000	1101.0	1064.40	0.00
308.15 K						
0.0000	1.0000	671.0	0.0000	1085.6	1264.50	0.00
0.0000	0.0000	994.0	0.0000	1520.2	435.26	0.00
0.1278	0.8021	672.4	1.5421	1079.1	1276.98	98.64
0.1700	0.7541	672.6	1.9618	1078.6	1277.97	113.67
0.4944	0.4592	705.8	-0.0633	1074.6	1226.90	109.23
0.5827	0.3665	715.8	-0.1061	1077.3	1203.60	108.91
0.6641	0.3016	723.2	-0.0706	1078.0	1189.80	99.27
0.6679	0.2980	724.4	-0.1599	1078.9	1185.77	95.87
0.6822	0.2886	725.0	-0.0965	1078.6	1185.58	94.75

Tabla A.26. Continuación.

x_1	x_2	ρ	V^E	u	K_S	δK_S
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.7473	0.2163	736.3	-0.1662	1084.7	1154.35	83.81
0.7668	0.1961	739.0	-0.1149	1086.3	1146.60	80.85
0.7771	0.1904	740.1	-0.1362	1086.4	1144.69	77.44
0.8070	0.1514	747.7	-0.1827	1092.8	1119.78	66.59
0.8343	0.1320	750.2	-0.0962	1092.8	1116.21	62.46
0.8468	0.1220	751.8	-0.0786	1093.6	1111.99	58.89
0.8906	0.0744	762.1	-0.0872	1102.4	1079.69	39.37
0.9442	0.0256	773.4	-0.0726	1112.0	1045.53	12.93
0.9591	0.0086	782.2	-0.3817	1128.9	1003.19	-24.37
1.0000	0.0000	777.2	0.0000	1109.4	1045.40	0.00
305.65 K						
0.0000	1.0000	673.2	0.0000	1096.3	1236.01	0.00
0.0000	0.0000	994.9	0.0000	1515.1	437.88	0.00
0.1278	0.8021	674.6	1.5220	1089.9	1247.84	94.52
0.1700	0.7541	674.8	1.9388	1089.2	1248.97	109.09
0.4944	0.4592	708.0	-0.0800	1084.8	1200.04	104.45
0.5827	0.3665	718.1	-0.1197	1087.4	1177.68	104.04
0.6641	0.3016	725.4	-0.0813	1087.9	1164.76	94.98
0.6679	0.2980	726.6	-0.1695	1088.6	1161.28	92.11
0.6822	0.2886	727.2	-0.1063	1088.3	1160.98	90.89
0.7473	0.2163	738.5	-0.1734	1094.1	1131.01	80.32
0.7668	0.1961	741.3	-0.1216	1095.6	1123.77	77.65
0.7771	0.1904	742.3	-0.1427	1095.7	1121.96	74.39
0.8070	0.1514	749.9	-0.1869	1101.9	1098.05	63.95
0.8343	0.1320	752.4	-0.1007	1101.9	1094.64	59.95
0.8468	0.1220	754.0	-0.0830	1102.8	1090.49	56.40
0.8906	0.0744	764.3	-0.0901	1111.1	1059.64	37.76
0.9442	0.0256	775.6	-0.0744	1120.6	1026.70	12.17
0.9591	0.0086	784.3	-0.3804	1137.3	985.63	-24.08
1.0000	0.0000	779.4	0.0000	1117.8	1026.90	0.00
303.15 K						
0.0000	1.0000	675.3	0.0000	1107.0	1208.36	0.00
0.0000	0.0000	995.7	0.0000	1509.4	440.80	0.00
0.1278	0.8021	676.8	1.5053	1100.7	1219.51	90.49
0.1700	0.7541	677.0	1.9161	1100.0	1220.62	104.47
0.4944	0.4592	710.3	-0.0956	1095.1	1173.75	99.73
0.5827	0.3665	720.4	-0.1329	1097.4	1152.56	99.53
0.6641	0.3016	727.7	-0.0896	1097.6	1140.57	91.12
0.6679	0.2980	775.6	-5.2350	1130.1	1009.49	-39.37
0.6822	0.2886	729.5	-0.1158	1098.1	1136.80	87.03
0.7473	0.2163	740.8	-0.1814	1103.6	1108.23	77.02
0.7668	0.1961	743.5	-0.1268	1105.1	1101.28	74.45
0.7771	0.1904	744.5	-0.1488	1105.1	1099.66	71.41

Tabla A.26. Continuación.

x_1	x_2	ρ	V^E	u	K_S	δK_S
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.8070	0.1514	752.2	-0.1901	1111.2	1076.70	61.37
0.8343	0.1320	754.6	-0.1049	1111.0	1073.56	57.62
0.8468	0.1220	756.2	-0.0852	1111.8	1069.75	54.37
0.8906	0.0744	766.5	-0.0929	1120.0	1039.84	36.14
0.9442	0.0256	777.8	-0.0759	1129.2	1008.26	11.54
0.9591	0.0086	786.5	-0.3798	1145.8	968.32	-23.77
1.0000	0.0000	781.5	0.0000	1126.2	1008.70	0.00
300.65 K						
0.0000	1.0000	677.4	0.0000	1117.6	1181.83	0.00
0.0000	0.0000	996.4	0.0000	1503.4	444.05	0.00
0.1278	0.8021	678.9	1.4887	1111.3	1192.60	86.87
0.1700	0.7541	679.2	1.8942	1110.7	1193.35	99.94
0.4944	0.4592	712.6	-0.1103	1105.4	1148.43	95.12
0.5827	0.3665	722.6	-0.1467	1107.4	1128.29	95.05
0.6641	0.3016	729.9	-0.0983	1107.4	1117.18	87.29
0.6679	0.2980	731.1	-0.1868	1108.2	1113.69	84.35
0.6822	0.2886	731.7	-0.1247	1107.8	1113.55	83.33
0.7473	0.2163	743.0	-0.1884	1113.1	1086.20	73.74
0.7668	0.1961	745.7	-0.1327	1114.4	1079.65	71.37
0.7771	0.1904	746.7	-0.1547	1114.5	1078.11	68.46
0.8070	0.1514	754.3	-0.1938	1120.4	1056.04	58.77
0.8343	0.1320	756.8	-0.1094	1120.1	1053.06	55.17
0.8468	0.1220	758.4	-0.0883	1120.9	1049.42	52.05
0.8906	0.0744	768.7	-0.0965	1128.9	1020.74	34.55
0.9442	0.0256	779.9	-0.0765	1137.7	990.48	10.94
0.9591	0.0086	788.7	-0.3790	1154.3	951.55	-23.57
1.0000	0.0000	783.7	0.0000	1134.6	991.10	0.00
298.15 K						
0.0000	1.0000	6796	0.0000	1128.4	1155.69	0.00
0.0000	0.0000	997.0	0.0000	1496.8	447.62	0.00
0.1278	0.8021	681.1	1.4705	1122.0	1166.16	83.37
0.1700	0.7541	681.3	1.8739	1121.5	1166.81	95.80
0.4944	0.4592	714.8	-0.1255	1115.8	1123.63	90.75
0.5827	0.3665	724.9	-0.1591	1117.5	1104.53	90.80
0.6641	0.3016	732.1	-0.1068	1117.2	1094.24	83.64
0.6679	0.2980	733.3	-0.1950	1118.0	1090.90	80.83
0.6822	0.2886	733.9	-0.1337	1117.6	1090.78	79.84
0.7473	0.2163	745.2	-0.1946	1122.6	1064.75	70.79
0.7668	0.1961	747.9	-0.1383	1123.9	1058.35	68.38
0.7771	0.1904	749.0	-0.1603	1123.9	1056.90	65.61
0.8070	0.1514	756.5	-0.1977	1129.6	1035.85	56.40

Tabla A.26. Continuación.

x_1	x_2	ρ	V^E	U	K_S	δK_S
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.8343	0.1320	759.0	-0.1130	1129.3	1033.09	53.02
0.8468	0.1220	760.6	-0.0908	1129.9	1029.70	50.11
0.8906	0.0744	770.9	-0.0981	1137.7	1002.11	33.20
0.9442	0.0256	782.1	-0.0779	1146.3	972.97	10.39
0.9591	0.0086	790.8	-0.3779	1162.9	935.02	-23.33
1.0000	0.0000	785.8	0.0000	1143.1	973.80	0.00
295.65 K						
0.0000	1.0000	681.7	0.0000	1139.2	1130.37	0.00
0.0000	0.0000	997.7	0.0000	1489.9	451.53	0.00
0.1278	0.8021	683.3	1.4526	1132.9	1140.27	79.69
0.1700	0.7541	683.5	1.8516	1132.4	1140.88	91.55
0.4944	0.4592	717.1	-0.1411	1126.2	1099.52	86.48
0.5827	0.3665	727.1	-0.1712	1127.7	1081.39	86.64
0.6641	0.3016	734.3	-0.1145	1127.2	1071.79	79.98
0.6679	0.2980	735.5	-0.2032	1127.9	1068.62	77.30
0.6822	0.2886	736.2	-0.1426	1127.5	1068.49	76.33
0.7473	0.2163	747.4	-0.2014	1132.2	1043.66	67.73
0.7668	0.1961	750.1	-0.1428	1133.4	1037.62	65.49
0.7771	0.1904	751.2	-0.1659	1133.4	1036.23	62.82
0.8070	0.1514	758.7	-0.2004	1138.9	1016.10	54.03
0.8343	0.1320	761.2	-0.1166	1138.5	1013.54	50.85
0.8468	0.1220	762.8	-0.0935	1139.1	1010.29	48.06
0.8906	0.0744	773.1	-0.1017	1146.7	983.64	31.61
0.9442	0.0256	784.3	-0.0794	1155.1	955.65	9.63
0.9591	0.0086	793.0	-0.3766	1171.5	918.85	-23.13
1.0000	0.0000	788.0	0.0000	1151.6	956.80	0.00
293.15 K						
0.0000	1.0000	683.8	0.0000	1150.2	1105.44	0.00
0.0000	0.0000	998.2	0.0000	1482.5	455.80	0.00
0.1278	0.8021	685.4	1.4330	1143.9	1114.78	76.04
0.1700	0.7541	685.7	1.8291	1143.4	1115.42	87.42
0.4944	0.4592	719.3	-0.1556	1136.7	1075.85	82.37
0.5827	0.3665	729.3	-0.1844	1138.1	1058.53	82.51
0.6641	0.3016	736.5	-0.1229	1137.3	1049.72	76.45
0.6679	0.2980	737.7	-0.2115	1138.0	1046.66	73.86
0.6822	0.2886	738.4	-0.1513	1137.6	1046.51	72.91
0.7473	0.2163	749.6	-0.2077	1142.0	1022.83	64.71
0.7668	0.1961	752.3	-0.1491	1143.1	1017.11	62.62
0.7771	0.1904	753.3	-0.1716	1143.0	1015.90	60.18
0.8070	0.1514	760.9	-0.2053	1148.4	996.42	51.52
0.8343	0.1320	763.3	-0.1211	1147.9	994.04	48.53
0.8468	0.1220	764.9	-0.0969	1148.4	991.14	46.06

Tabla A.26. Continuación.

x_1	x_2	ρ	V^E	U	K_S	δK_S
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.8906	0.0744	775.2	-0.1048	1155.9	965.35	30.01
0.9442	0.0256	786.4	-0.0809	1163.9	938.60	8.98
0.9591	0.0086	795.1	-0.3763	1180.3	902.71	-23.05
1.0000	0.0000	790.1	0.0000	1160.3	940.00	0.00
290.65 K						
0.0000	1.0000	685.8	0.0000	1161.3	1081.08	0.00
0.0000	0.0000	998.7	0.0000	1474.6	460.44	0.00
0.1278	0.8021	687.6	1.4193	1155.0	1090.14	72.74
0.1700	0.7541	687.8	1.8106	1154.6	1090.40	83.24
0.4944	0.4592	721.5	-0.1663	1147.1	1052.76	78.45
0.5827	0.3665	731.6	-0.1941	1148.4	1036.40	78.73
0.6641	0.3016	738.7	-0.1269	1147.3	1028.31	73.24
0.6679	0.2980	739.9	-0.2159	1148.0	1025.32	70.70
0.6822	0.2886	740.5	-0.1550	1147.6	1025.30	69.90
0.7473	0.2163	751.8	-0.2111	1151.8	1002.54	61.90
0.7668	0.1961	754.5	-0.1503	1152.8	997.25	60.08
0.7771	0.1904	755.5	-0.1747	1152.8	995.90	57.54
0.8070	0.1514	763.0	-0.2047	1157.9	977.39	49.36
0.8343	0.1320	765.5	-0.1210	1157.4	975.18	46.56
0.8468	0.1220	767.1	-0.0976	1157.8	972.39	44.18
0.8906	0.0744	777.4	-0.1040	1165.1	947.64	28.71
0.9442	0.0256	788.5	-0.0799	1172.9	921.81	8.32
0.9591	0.0086	797.2	-0.3731	1189.1	887.06	-22.74
1.0000	0.0000	792.3	0.0000	1169.1	923.40	0.00
288.15 K						
0.0000	1.0000	688.0	0.0000	1172.3	1057.71	0.00
0.0000	0.0000	999.1	0.0000	1466.4	465.46	0.00
0.1278	0.8021	690.4	1.2628	1166.2	1064.85	67.96
0.1700	0.7541	690.6	1.6700	1165.9	1065.18	78.08
0.4944	0.4592	724.3	-0.2682	1157.8	1029.89	74.28
0.5827	0.3665	734.4	-0.2848	1158.5	1014.38	74.69
0.6641	0.3016	741.5	-0.2051	1157.2	1007.07	69.90
0.6679	0.2980	742.7	-0.2944	1157.9	1004.04	67.30
0.6822	0.2886	743.4	-0.2349	1157.3	1004.38	66.90
0.7473	0.2163	754.6	-0.2767	1161.4	982.53	59.17
0.7668	0.1961	757.3	-0.2255	1162.2	977.43	57.38
0.7771	0.1904	758.3	-0.2423	1162.3	976.03	54.86
0.8070	0.1514	765.9	-0.2751	1167.1	958.40	47.10
0.8343	0.1320	768.3	-0.1828	1166.4	956.59	44.73
0.8468	0.1220	770.0	-0.1670	1167.1	953.33	41.87
0.8906	0.0744	780.2	-0.1580	1173.8	930.21	27.62
0.9442	0.0256	791.3	-0.1296	1181.3	905.49	8.13
0.9591	0.0086	800.1	-0.4268	1197.7	871.10	-22.74
1.0000	0.0000	794.4	0.0000	1178.2	906.80	0.00

Tabla A.27. Influencia de la composición sobre los índices de refracción, las variaciones de índices de refracción de la mezcla ternaria x_1 etanol (1)+ x_2 *n*-octano (2) – (1- x_1 - x_2) agua (3) en el intervalo de temperaturas (318.15- 288.15) K.

x_1	x_2	n_D				δn_D			
		318.15	308.15	298.15	288.15	318.15	308.15	298.15	288.15
T / K									
0.0000	1.0000	1.32985	1.33131	1.33250	1.33339	0.00000	0.00000	0.00000	0.00000
0.0000	0.0000	1.38489	1.39058	1.39551	1.40040	0.00000	0.00000	0.00000	0.00000
0.0487	0.5391	1.36962	1.37400	1.37917	1.38120	0.00910	0.00960	0.01140	0.01022
0.3265	0.0476	1.38349	1.38786	1.39307	1.39850	0.04434	0.04607	0.04884	0.05210
0.6182	0.3294	1.35195	1.35583	1.36027	1.39506	-0.00868	-0.00950	-0.00950	0.02102
0.7054	0.2466	1.35521	1.35898	1.36378	1.36844	-0.00265	-0.00350	-0.00311	-0.00268
0.7328	0.2110	1.35661	1.36064	1.36548	1.37607	0.00016	-0.00036	0.00011	0.00652
0.7689	0.1784	1.35814	1.36218	1.36697	1.36901	0.00274	0.00226	0.00268	0.00055
0.8049	0.1517	1.35961	1.36373	1.36849	1.37331	0.00494	0.00455	0.00492	0.00556
0.8351	0.1244	1.36119	1.36533	1.37023	1.37544	0.00741	0.00706	0.00758	0.00861
0.8588	0.0984	1.36278	1.36700	1.37224	1.37669	0.00994	0.00971	0.01059	0.01089
0.8870	0.0758	1.36451	1.36875	1.37371	1.37877	0.01234	0.01214	0.01273	0.01364
1.0000	0.0000	1.35031	1.35477	1.35922	1.36345	0.00000	0.00000	0.00000	0.00000
0.0000	1.0000	1.32985	1.33131	1.33250	1.33339	0.00000	0.00000	0.00000	0.00000
0.0000	0.0000	1.38489	1.39058	1.39551	1.40040	0.00000	0.00000	0.00000	0.00000
0.0487	0.5391	1.36962	1.37400	1.37917	1.38120	0.00910	0.00960	0.01140	0.01022
0.3265	0.0476	1.38349	1.38786	1.39307	1.39850	0.04434	0.04607	0.04884	0.05210
0.6182	0.3294	1.35195	1.35583	1.36027	1.39506	-0.00868	-0.00950	-0.00950	0.02102
0.7054	0.2466	1.35521	1.35898	1.36378	1.36844	-0.00265	-0.00350	-0.00311	-0.00268
0.7328	0.2110	1.35661	1.36064	1.36548	1.37607	0.00016	-0.00036	0.00011	0.00652
0.7689	0.1784	1.35814	1.36218	1.36697	1.36901	0.00274	0.00226	0.00268	0.00055
0.8049	0.1517	1.35961	1.36373	1.36849	1.37331	0.00494	0.00455	0.00492	0.00556
0.8351	0.1244	1.36119	1.36533	1.37023	1.37544	0.00741	0.00706	0.00758	0.00861
0.8588	0.0984	1.36278	1.36700	1.37224	1.37669	0.00994	0.00971	0.01059	0.01089
1.0000	0.0000	1.35031	1.35477	1.35922	1.36345	0.00000	0.00000	0.00000	0.00000

Tabla A.28. Influencia de la composición sobre la densidad, el volumen de exceso, la velocidad del sonido, la compresibilidad isoentrópica, la variación de la compresibilidad isoentrópica de la mezcla ternaria x_1 etanol (1)+ x_2 *n*-octano (2) – (1- x_1 - x_2) agua (3) en el intervalo de temperaturas (318.15- 288.15) K.

x_1	x_2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		$\text{kg}\cdot\text{m}^{-3}$	$\text{cm}^3\cdot\text{mol}^{-1}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}	TPa^{-1}
318.15 K						
0.0000	1.0000	682.5	0.0000	1085.4	1243.74	0.00
0.0000	0.0000	990.2	0.0000	1536.6	427.70	0.00

Tabla A.28. Continuación.

x1	x2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.1282	0.8716	682.8	0.9022	1077.7	1260.95	30.47
0.6182	0.3294	721.8	-0.2524	1078.1	1191.78	53.81
0.7328	0.2110	729.5	0.4370	1069.3	1198.81	75.59
0.7689	0.1784	732.3	0.5816	1067.6	1197.96	75.52
0.8049	0.1517	739.9	0.1560	1075.6	1168.01	41.65
0.8351	0.1244	741.2	0.4389	1070.2	1177.84	52.18
0.8588	0.0984	745.7	0.4341	1071.3	1168.46	47.08
0.8870	0.0758	750.0	0.3885	1072.5	1159.03	36.00
0.9091	0.0530	756.6	0.1988	1079.2	1134.77	14.51
0.9602	0.0062	771.4	-0.1651	1085.4	1079.79	-38.77
1.0000	0.0000	768.4	0.0000	1067.5	1141.90	0.00
315.65 K						
0.0000	1.0000	684.5	0.0000	1095.8	1216.72	0.00
0.0000	0.0000	991.2	0.0000	1533.2	429.16	0.00
0.1282	0.8716	682.8	1.3456	1087.9	1237.42	35.39
0.6182	0.3294	721.8	0.0115	1091.7	1162.30	56.76
0.7328	0.2110	729.5	0.6628	1078.8	1177.69	88.08
0.7689	0.1784	732.3	0.7975	1077.1	1176.84	88.51
0.8049	0.1517	739.9	0.3649	1085.0	1147.99	56.41
0.8351	0.1244	741.2	0.6396	1079.4	1157.79	67.33
0.8588	0.0984	745.7	0.6262	1080.3	1149.09	63.12
0.8870	0.0758	750.0	0.5743	1081.4	1140.17	53.01
0.9091	0.0530	756.6	0.3772	1088.0	1116.45	32.30
0.9602	0.0062	771.4	-0.0009	1104.2	1063.12	-18.65
1.0000	0.0000	770.6	0.0000	1084.3	1103.60	0.00
313.15 K						
0.0000	1.0000	686.5	0.0000	1106.2	1190.35	0.00
0.0000	0.0000	992.2	0.0000	1529.3	430.91	0.00
0.1282	0.8716	689.2	0.3660	1098.2	1202.93	26.45
0.6182	0.3294	729.4	-0.6766	1100.8	1131.48	46.91
0.7328	0.2110	736.3	0.1464	1088.3	1146.55	77.09
0.7689	0.1784	739.1	0.3082	1086.3	1146.51	78.19
0.8049	0.1517	746.8	-0.1001	1094.1	1118.60	47.07
0.8351	0.1244	748.0	0.1957	1088.4	1128.40	57.88
0.8588	0.0984	752.4	0.2041	1089.2	1120.13	53.87
0.8870	0.0758	756.7	0.1714	1090.2	1111.90	44.44
0.9091	0.0530	763.3	-0.0047	1096.7	1089.12	24.51
0.9602	0.0062	778.1	-0.3419	1112.6	1038.07	-24.36
1.0000	0.0000	772.8	0.0000	1092.7	1083.70	0.00
310.615 K						
0.0000	1.0000	688.6	0.0000	1116.5	1165.02	0.00
0.0000	0.0000	993.2	0.0000	1525.0	432.93	0.00

Tabla A.28. Continuación.

x1	x2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.1282	0.8716	691.3	0.3483	1108.4	1177.40	25.47
0.6182	0.3294	731.9	-0.7281	1109.8	1109.30	44.91
0.7328	0.2110	738.6	0.1308	1097.7	1123.58	73.49
0.7689	0.1784	741.4	0.2950	1095.6	1123.68	74.62
0.8049	0.1517	749.0	-0.1119	1103.3	1096.71	44.47
0.8351	0.1244	750.2	0.1865	1097.6	1106.44	55.12
0.8588	0.0984	754.7	0.1953	1098.2	1098.71	51.44
0.8870	0.0758	758.9	0.1641	1099.0	1090.79	42.30
0.9091	0.0530	765.5	-0.0095	1105.5	1068.83	23.04
0.9602	0.0062	780.4	-0.3431	1121.0	1019.60	-24.21
1.0000	0.0000	775.0	0.0000	1101.0	1064.40	0.00
308.15 K						
0.0000	1.0000	690.6	0.0000	1126.9	1140.24	0.00
0.0000	0.0000	994.0	0.0000	1520.2	435.26	0.00
0.1282	0.8716	693.4	0.3332	1118.7	1152.24	24.34
0.6182	0.3294	734.5	-0.7820	1121.2	1083.01	38.41
0.7328	0.2110	740.8	0.1172	1107.2	1100.93	69.87
0.7689	0.1784	743.6	0.2842	1105.0	1101.41	71.27
0.8049	0.1517	751.3	-0.1211	1112.6	1075.28	42.00
0.8351	0.1244	752.4	0.1792	1106.6	1085.27	52.81
0.8588	0.0984	756.9	0.1878	1107.2	1077.72	49.12
0.8870	0.0758	761.1	0.1595	1107.9	1070.34	40.51
0.9091	0.0530	767.7	-0.0119	1114.2	1049.18	21.90
0.9602	0.0062	782.6	-0.3427	1129.6	1001.43	-24.04
1.0000	0.0000	777.2	0.0000	1109.4	1045.40	0.00
305.65 K						
0.0000	1.0000	692.6	0.0000	1137.2	1116.43	0.00
0.0000	0.0000	994.9	0.0000	1515.1	437.88	0.00
0.1282	0.8716	695.5	0.3169	1129.0	1127.80	23.02
0.6182	0.3294	736.9	-0.8276	1131.3	1060.16	34.67
0.7328	0.2110	743.0	0.1037	1116.7	1079.13	66.46
0.7689	0.1784	745.8	0.2724	1114.3	1079.84	67.99
0.8049	0.1517	753.5	-0.1306	1121.8	1054.51	39.58
0.8351	0.1244	754.6	0.1707	1115.7	1064.54	50.34
0.8588	0.0984	759.0	0.1812	1116.1	1057.54	47.01
0.8870	0.0758	763.3	0.1543	1116.7	1050.50	38.73
0.9091	0.0530	769.9	-0.0161	1122.9	1030.03	20.68
0.9602	0.0062	784.7	-0.3437	1138.1	983.81	-23.89
1.0000	0.0000	779.4	0.0000	1117.8	1026.90	0.00
303.15 K						
0.0000	1.0000	694.7	0.0000	1147.5	1093.24	0.00
0.0000	0.0000	995.7	0.0000	1509.4	440.80	0.00

Tabla A.28. Continuación.

x1	x2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.1282	0.8716	697.6	0.3042	1139.4	1104.00	21.76
0.6182	0.3294	739.4	-0.8652	1141.6	1037.76	31.01
0.7328	0.2110	745.3	0.0914	1126.3	1057.67	63.08
0.7689	0.1784	748.0	0.2616	1123.7	1058.76	64.90
0.8049	0.1517	755.7	-0.1389	1131.1	1034.17	37.28
0.8351	0.1244	756.8	0.1639	1124.9	1044.17	47.95
0.8588	0.0984	761.3	0.1748	1125.2	1037.55	44.83
0.8870	0.0758	765.5	0.1498	1125.6	1031.03	37.07
0.9091	0.0530	772.1	-0.0186	1131.7	1011.17	19.50
0.9602	0.0062	786.9	-0.3423	1146.5	966.63	-23.53
1.0000	0.0000	781.5	0.0000	1126.2	1008.70	0.00
300.65 K						
0.0000	1.0000	696.7	0.0000	1157.8	1070.78	0.00
0.0000	0.0000	996.4	0.0000	1503.4	444.05	0.00
0.1282	0.8716	699.7	0.2904	1149.8	1080.95	20.54
0.6182	0.3294	741.6	-0.8834	1151.5	1016.84	28.18
0.7328	0.2110	747.5	0.0796	1135.8	1037.05	59.89
0.7689	0.1784	750.1	0.2523	1133.0	1038.31	61.79
0.8049	0.1517	757.9	-0.1485	1140.4	1014.51	35.03
0.8351	0.1244	759.0	0.1563	1134.0	1024.49	45.60
0.8588	0.0984	763.4	0.1681	1134.2	1018.25	42.69
0.8870	0.0758	767.6	0.1445	1134.5	1011.98	35.18
0.9091	0.0530	774.3	-0.0219	1140.4	992.99	18.36
0.9602	0.0062	789.1	-0.3423	1155.0	949.90	-23.37
1.0000	0.0000	783.7	0.0000	1134.6	991.10	0.00
298.15 K						
0.0000	1.0000	698.7	0.0000	1168.2	1048.76	0.00
0.0000	0.0000	997.0	0.0000	1496.8	447.62	0.00
0.1282	0.8716	701.8	0.2803	1160.2	1058.52	19.53
0.6182	0.3294	743.6	-0.8663	1161.7	996.42	25.55
0.7328	0.2110	749.6	0.0681	1145.3	1016.85	56.86
0.7689	0.1784	752.3	0.2430	1142.5	1018.23	58.80
0.8049	0.1517	760.1	-0.1572	1149.7	995.18	32.87
0.8351	0.1244	761.1	0.1498	1143.2	1005.24	43.44
0.8588	0.0984	765.6	0.1639	1143.1	999.50	40.86
0.8870	0.0758	769.8	0.1401	1143.4	993.49	33.63
0.9091	0.0530	776.4	-0.0249	1149.2	975.05	17.23
0.9602	0.0062	791.2	-0.3419	1163.5	933.49	-23.09
1.0000	0.0000	785.8	0.0000	1143.1	973.80	0.00
295.65 K						
0.0000	1.0000	700.7	0.0000	1178.7	1027.19	0.00

Tabla A.28. Continuación.

x1	x2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.0000	0.0000	997.7	0.0000	1489.9	451.53	0.00
0.1282	0.8716	703.8	0.2723	1170.7	1036.60	18.58
0.6182	0.3294	745.3	-0.8135	1171.8	977.07	23.60
0.7328	0.2110	751.8	0.0586	1155.0	997.02	53.80
0.7689	0.1784	754.5	0.2343	1152.1	998.56	55.84
0.8049	0.1517	762.3	-0.1652	1159.2	976.19	30.65
0.8351	0.1244	763.3	0.1444	1152.4	986.42	41.33
0.8588	0.0984	767.7	0.1577	1152.3	980.85	38.75
0.8870	0.0758	771.9	0.1376	1152.4	975.41	32.10
0.9091	0.0530	778.6	-0.0267	1158.1	957.53	16.14
0.9602	0.0062	793.4	-0.3412	1172.1	917.31	-22.95
1.0000	0.0000	788.0	0.0000	1151.6	956.80	0.00
293.15 K						
0.0000	1.0000	702.7	0.0000	1189.3	1006.07	0.00
0.0000	0.0000	998.2	0.0000	1482.5	455.80	0.00
0.1282	0.8716	705.9	0.2632	1181.4	1014.89	17.43
0.6182	0.3294	746.6	-0.7227	1182.2	958.30	21.97
0.7328	0.2110	754.0	0.0486	1164.8	977.40	50.73
0.7689	0.1784	756.6	0.2257	1161.7	979.19	52.94
0.8049	0.1517	764.4	-0.1724	1168.8	957.50	28.51
0.8351	0.1244	765.4	0.1398	1161.8	967.84	39.26
0.8588	0.0984	769.9	0.1536	1161.6	962.61	36.85
0.8870	0.0758	774.1	0.1338	1161.6	957.41	30.46
0.9091	0.0530	780.7	-0.0282	1167.2	940.21	15.07
0.9602	0.0062	795.5	-0.3406	1180.9	901.27	-22.86
1.0000	0.0000	790.1	0.0000	1160.3	940.00	0.00
290.65 K						
0.0000	1.0000	704.7	0.0000	1200.0	985.39	0.00
0.0000	0.0000	998.7	0.0000	1474.6	460.44	0.00
0.1282	0.8716	707.9	0.2577	1192.1	993.96	16.65
0.6182	0.3294	748.4	-0.6865	1192.5	939.54	20.02
0.7328	0.2110	756.1	0.0411	1174.6	958.48	48.06
0.7689	0.1784	758.7	0.2202	1171.3	960.53	50.47
0.8049	0.1517	766.6	-0.1759	1178.4	939.34	26.64
0.8351	0.1244	767.5	0.1375	1171.2	949.68	37.32
0.8588	0.0984	772.0	0.1517	1170.9	944.82	35.13
0.8870	0.0758	776.2	0.1338	1170.7	940.01	29.16
0.9091	0.0530	782.8	-0.0263	1176.2	923.32	14.17
0.9602	0.0062	797.6	-0.3382	1189.8	885.60	-22.64
1.0000	0.0000	792.3	0.0000	1169.1	923.40	0.00
288.15 K						
0.0000	1.0000	706.8	0.0000	1211.0	964.82	0.00
0.0000	0.0000	999.1	0.0000	1466.4	465.46	0.00

Tabla A.28. Continuación.

x1	x2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.1282	0.8716	710.6	0.1165	1202.7	972.84	15.59
0.6182	0.3294	750.8	-0.7316	1202.6	920.86	18.11
0.7328	0.2110	758.9	-0.0340	1184.2	939.50	45.30
0.7689	0.1784	761.5	0.1495	1180.8	941.74	47.86
0.8049	0.1517	769.4	-0.2409	1187.7	921.37	24.93
0.8351	0.1244	770.3	0.0747	1180.5	931.51	35.37
0.8588	0.0984	774.8	0.0912	1180.0	926.95	33.33
0.8870	0.0758	779.0	0.0760	1179.6	922.45	27.69
0.9091	0.0530	785.6	-0.0793	1185.1	906.33	13.18
0.9602	0.0062	800.5	-0.3855	1198.2	870.08	-22.25
1.0000	0.0000	794.4	0.0000	1178.2	906.80	0.00

Tabla A.29. Influencia de la composición sobre los índices de refracción, las variaciones de índices de refracción de la mezcla ternaria x₁ etanol (1)+ x₂ n-nonano (2) – (1- x₁-x₂) agua (3) en el intervalo de temperaturas (318.15- 288.15) K.

x ₁	x ₂	n_D				δn_D			
		318.15	308.15	298.15	288.15	318.15	308.15	298.15	288.15
0.0000	1.0000	1.39368	1.39718	1.40298	1.40749	0.00000	0.00000	0.00000	0.00000
0.0000	0.0000	1.32976	1.33125	1.33259	1.33353	0.00000	0.00000	0.00000	0.00000
0.7523	0.0087	1.35426	1.35874	1.36287	1.36711	0.00846	0.00921	0.00965	0.01046
0.7942	0.0180	1.35474	1.35911	1.36412	1.36782	0.00749	0.00798	0.00913	0.00922
0.8254	0.0170	1.35426	1.35869	1.36316	1.36778	0.00644	0.00690	0.00741	0.00832
0.8312	0.0113	1.35375	1.35819	1.36241	1.36699	0.00617	0.00664	0.00690	0.00778
0.8403	0.0103	1.35376	1.35816	1.36225	1.36658	0.00606	0.00646	0.00657	0.00717
0.9354	0.0098	1.35255	1.35708	1.36146	1.36563	0.00293	0.00318	0.00327	0.00339
1.0000	0.0000	1.35031	1.35477	1.35922	1.36345	0.00000	0.00000	0.00000	0.00000

Tabla A.30. Influencia de la composición sobre la densidad, el volumen de exceso, la velocidad del sonido, la compresibilidad isoentrópica, la variación de la compresibilidad isoentrópica de la mezcla ternaria x_1 etanol (1)+ x_2 *n*-nonano (2) – (1- x_1 - x_2) agua (3) en el intervalo de temperaturas (318.15- 288.15) K.

x1	x2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
318.15 K						
0.0000	1.0000	698.3	0.0000	1123.9	1133.70	0.00
0.0000	0.0000	990.2	0.0000	1536.6	427.70	0.00
0.7523	0.0087	795.3	-0.6535	1156.8	939.56	-31.59
0.7942	0.0180	784.1	-0.4108	1133.3	993.01	-14.64
0.8254	0.0170	780.7	-0.3374	1122.6	1016.20	-13.01
0.8312	0.0113	783.5	-0.4275	1126.8	1005.04	-24.27
0.8403	0.0103	783.8	-0.4761	1127.0	1004.30	-30.79
0.9317	0.0080	772.4	-0.1124	1093.9	1081.87	-16.93
0.9354	0.0098	773.1	-0.2321	1097.5	1073.77	-28.95
1.0000	0.0000	768.4	0.0000	1067.5	1141.90	0.00
315.65 K						
0.0000	1.0000	700.2	0.0000	1133.9	1110.76	0.00
0.0000	0.0000	991.2	0.0000	1533.2	429.16	0.00
0.7523	0.0087	797.6	-0.6588	1165.3	923.21	-19.36
0.7942	0.0180	786.3	-0.4179	1142.2	974.67	-2.50
0.8254	0.0170	782.9	-0.3415	1131.4	997.75	0.23
0.8312	0.0113	785.7	-0.4312	1135.5	987.04	-10.49
0.8403	0.0103	786.0	-0.4796	1135.7	986.38	-16.60
0.9317	0.0080	774.5	-0.1140	1102.4	1062.30	-0.81
0.9354	0.0098	775.3	-0.2337	1106.1	1054.25	-12.59
1.0000	0.0000	770.6	0.0000	1084.3	1103.60	0.00
313.15 K						
0.0000	1.0000	702.2	0.0000	1143.8	1088.53	0.00
0.0000	0.0000	992.2	0.0000	1529.3	430.91	0.00
0.7523	0.0087	799.8	-0.6648	1173.8	907.31	-20.42
0.7942	0.0180	788.6	-0.4244	1150.9	957.22	-3.98
0.8254	0.0170	785.2	-0.3474	1140.0	979.98	-0.91
0.8312	0.0113	788.0	-0.4381	1144.1	969.40	-11.52
0.8403	0.0103	788.3	-0.4850	1144.2	968.86	-17.33
0.9317	0.0080	776.8	-0.1163	1110.9	1043.19	-1.19
0.9354	0.0098	777.5	-0.2367	1114.6	1035.16	-12.83
1.0000	0.0000	772.8	0.0000	1092.7	1083.70	0.00
310.65 K						
0.0000	1.0000	704.2	0.0000	1153.6	1067.13	0.00
0.0000	0.0000	993.2	0.0000	1525.0	432.93	0.00
0.7523	0.0087	802.1	-0.6710	1182.3	891.78	-21.72
0.7942	0.0180	790.8	-0.4300	1159.5	940.46	-5.40

Tabla A.30. Continuación.

x1	x2	ρ	V^E	U	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.8254	0.0170	787.4	-0.3533	1148.5	962.61	-2.30
0.8312	0.0113	790.3	-0.4428	1152.6	952.49	-12.45
0.8403	0.0103	790.6	-0.4907	1152.9	951.58	-18.46
0.9317	0.0080	779.0	-0.1203	1119.4	1024.31	-2.03
0.9354	0.0098	779.8	-0.2403	1123.1	1016.56	-13.26
1.0000	0.0000	775.0	0.0000	1101.0	1064.40	0.00
308.15 K						
0.0000	1.0000	706.1	0.0000	1163.6	1045.94	0.00
0.0000	0.0000	994.0	0.0000	1520.2	435.26	0.00
0.7523	0.0087	804.4	-0.6766	1190.8	876.67	-22.89
0.7942	0.0180	793.1	-0.4363	1168.2	923.94	-6.87
0.8254	0.0170	789.7	-0.3584	1157.2	945.65	-3.57
0.8312	0.0113	792.5	-0.4478	1161.2	935.71	-13.55
0.8403	0.0103	792.8	-0.4942	1161.3	935.20	-19.00
0.9317	0.0080	781.2	-0.1219	1127.7	1006.42	-2.18
0.9354	0.0098	782.0	-0.2410	1131.5	998.72	-13.24
1.0000	0.0000	777.2	0.0000	1109.4	1045.40	0.00
305.65 K						
0.0000	1.0000	647.8	0.0000	1035.7	1439.00	0.00
0.0000	0.0000	708.1	0.0000	1173.6	1025.38	0.00
0.7523	0.0087	994.9	0.0000	1515.1	437.88	0.00
0.7942	0.0180	806.6	-0.6822	1199.3	861.96	-24.17
0.8254	0.0170	795.3	-0.4430	1177.0	907.61	-8.67
0.8312	0.0113	791.9	-0.3636	1165.8	929.12	-4.94
0.8403	0.0103	794.7	-0.4525	1169.7	919.66	-14.45
0.9317	0.0080	795.0	-0.4983	1169.8	919.10	-19.78
0.9354	0.0098	783.4	-0.1244	1136.3	988.64	-2.76
1.0000	0.0000	779.4	0.0000	1117.8	1026.90	0.00
303.15 K						
0.0000	1.0000	710.1	0.0000	1183.6	1005.31	0.00
0.0000	0.0000	995.7	0.0000	1509.4	440.80	0.00
0.7523	0.0087	808.8	-0.6877	1207.8	847.48	-25.48
0.7942	0.0180	797.5	-0.4478	1184.1	894.24	-7.77
0.8254	0.0170	794.1	-0.3682	1174.3	913.10	-6.05
0.8312	0.0113	796.9	-0.4567	1178.3	903.77	-15.44
0.8403	0.0103	797.2	-0.5026	1178.4	903.15	-20.65
0.9317	0.0080	785.6	-0.1267	1144.8	971.21	-3.24
0.9354	0.0098	786.4	-0.2449	1148.6	963.83	-13.74
1.0000	0.0000	781.5	0.0000	1126.2	1008.70	0.00
300.65 K						
0.0000	1.0000	712.0	0.0000	1193.6	985.83	0.00
0.0000	0.0000	996.4	0.0000	1503.	444.05	0.00

Tabla A.30. Continuación.

x1	x2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.7523	0.0087	811.0	-0.6935	1216.2	833.54	-26.80
0.7942	0.0180	799.7	-0.4550	1190.3	882.54	-5.77
0.8254	0.0170	796.3	-0.3736	1182.9	897.46	-7.36
0.8312	0.0113	799.1	-0.4619	1186.8	888.38	-16.51
0.8403	0.0103	799.4	-0.5075	1187.0	887.75	-21.58
0.9317	0.0080	787.7	-0.1295	1153.3	954.36	-3.76
0.9354	0.0098	788.6	-0.2478	1157.1	947.10	-14.02
1.0000	0.0000	783.7	0.0000	1134.6	991.10	0.00
298.15 K						
0.0000	1.0000	714.0	0.0000	1203.7	966.70	0.00
0.0000	0.0000	997.0	0.0000	1496.8	447.62	0.00
0.7523	0.0087	813.2	-0.6994	1224.7	819.78	-28.19
0.7942	0.0180	801.9	-0.4618	1200.9	864.53	-10.32
0.8254	0.0170	798.5	-0.3790	1191.5	882.04	-8.69
0.8312	0.0113	801.3	-0.4661	1195.3	873.31	-17.51
0.8403	0.0103	801.6	-0.5111	1195.6	872.66	-22.42
0.9317	0.0080	789.9	-0.1317	1161.8	937.82	-4.19
0.9354	0.0098	790.7	-0.2501	1165.7	930.61	-14.28
1.0000	0.0000	785.8	0.0000	1143.1	973.80	0.00
295.65 K						
0.0000	1.0000	715.9	0.0000	1214.0	947.79	0.00
0.0000	0.0000	997.7	0.0000	1489.9	451.53	0.00
0.7523	0.0087	815.4	-0.7038	1233.2	806.40	-29.57
0.7942	0.0180	804.1	-0.4662	1207.8	852.45	-9.30
0.8254	0.0170	800.6	-0.3834	1200.2	866.98	-10.03
0.8312	0.0113	803.5	-0.4706	1204.0	858.48	-18.62
0.8403	0.0103	803.8	-0.5147	1204.3	857.77	-23.42
0.9317	0.0080	792.1	-0.1335	1170.4	921.52	-4.75
0.9354	0.0098	792.9	-0.2518	1174.3	914.45	-14.58
1.0000	0.0000	788.0	0.0000	1151.6	956.80	0.00
293.15 K						
0.0000	1.0000	717.8	0.0000	1224.3	929.39	0.00
0.0000	0.0000	998.2	0.0000	1482.5	455.80	0.00
0.7523	0.0087	817.6	-0.7099	1241.9	792.96	-31.20
0.7942	0.0180	806.2	-0.4702	1217.8	836.23	-12.63
0.8254	0.0170	802.8	-0.3894	1209.1	851.95	-11.53
0.8312	0.0113	805.7	-0.4756	1212.8	843.74	-19.84
0.8403	0.0103	806.0	-0.5193	1213.2	842.98	-24.53
0.9317	0.0080	794.2	-0.1369	1179.2	905.34	-5.36
0.9354	0.0098	795.1	-0.2546	1183.2	898.43	-14.92
1.0000	0.0000	790.1	0.0000	1160.3	940.00	0.00
290.65 K						
0.0000	1.0000	719.8	0.0000	1234.9	911.03	0.00

Tabla A.30. Continuación.

x1	x2	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
0.0000	0.0000	998.7	0.0000	1474.6	460.44	0.00
0.7523	0.0087	819.8	-0.7144	1250.7	779.76	-32.89
0.7942	0.0180	807.9	-0.4387	1223.9	826.31	-9.92
0.8254	0.0170	805.0	-0.3930	1217.9	837.39	-12.82
0.8312	0.0113	807.8	-0.4777	1221.6	829.42	-20.91
0.8403	0.0103	808.1	-0.5215	1222.1	828.46	-25.62
0.9317	0.0080	796.4	-0.1378	1188.1	889.47	-5.93
0.9354	0.0098	797.2	-0.2542	1192.0	882.70	-15.22
1.0000	0.0000	792.3	0.0000	1169.1	923.40	0.00
288.15 K						
0.0000	1.0000	721.7	0.0000	1245.4	893.38	0.00
0.0000	0.0000	999.1	0.0000	1466.4	465.46	0.00
0.7523	0.0087	822.5	-0.7558	1259.1	766.76	-34.45
0.7942	0.0180	810.7	-0.4891	1232.7	811.63	-12.05
0.8254	0.0170	807.8	-0.4405	1226.4	822.95	-14.06
0.8312	0.0113	810.6	-0.5226	1230.3	815.00	-22.12
0.8403	0.0103	810.9	-0.5653	1230.7	814.15	-26.55
0.9317	0.0080	7991	-0.1835	1196.6	873.80	-6.28
0.9354	0.0098	800.0	-0.3003	1200.6	867.09	-15.40
1.0000	0.0000	794.4	0.0000	1178.2	906.80	0.00

Tabla A.31. Influencia de la composición sobre los índices de refracción, las variaciones de índices de refracción de la mezcla binaria %₁ Tween 20 (1) – %₂ agua (2) en el intervalo de temperaturas (318.15- 288.15) K.

% ₁	x ₁	n_D				δn_D			
		318.15	308.15	298.15	288.15	318.15	308.15	298.15	288.15
T / K									
0.000	0.000	1.32976	1.33125	1.33259	1.33353	0.00000	0.00000	0.00000	0.00000
4.015	0.005	1.33482	1.33618	1.33753	1.33861	0.00439	0.00425	0.00425	0.00437
8.652	0.014	1.34053	1.34215	1.34369	1.34491	0.00926	0.00936	0.00954	0.00979
17.659	0.026	1.35269	1.35487	1.35676	1.35829	0.01956	0.02019	0.02069	0.02121
30.204	0.052	1.37009	1.37383	1.37603	1.37788	0.03370	0.03584	0.03659	0.03737
40.356	0.074	1.38777	1.38600	1.38839	1.39053	0.04792	0.04450	0.04538	0.04638
49.932	0.107	1.39769	1.40293	1.40603	1.40860	0.05358	0.05711	0.05862	0.05996
67.212	0.204	1.43295	1.43601	1.43997	1.44406	0.07673	0.07789	0.08005	0.08267
78.462	0.302	1.43779	1.44111	1.44440	1.44739	0.06734	0.06854	0.06979	0.07103
89.526	0.510	1.45208	1.45550	1.45902	1.46265	0.05485	0.05572	0.05675	0.05809
100.000	1.000	1.46180	1.46535	1.46895	1.47253	0.00000	0.00000	0.00000	0.00000

Tabla A.32. Influencia de la composición sobre la densidad, el volumen de exceso, la velocidad del sonido, la compresibilidad isoentrópica, la variación de la compresibilidad isoentrópica de la mezcla binaria %₁ Tween 20 (1) – %₂ agua (2) en el intervalo de temperaturas (318.15-288.15) K.

%1	x1	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
318.15 K						
0.000	0.000	990.2	0.0000	1536.62	427.70	0.00
4.015	0.005	996.3	0.0056	1543.10	421.52	-5.74
17.659	0.026	1012.4	0.0198	1562.89	404.36	-21.42
8.652	0.014	1.001.5	0.0102	1549.60	415.80	-10.96
30.204	0.052	1.027.0	0.0321	1582.59	388.75	-35.67
40.356	0.074	1038.7	0.0413	1595.22	378.32	-45.00
49.932	0.107	1050.8	0.0504	1603.62	370.05	-52.23
67.212	0.204	1069.2	0.0602	1598.28	366.11	-54.29
78.462	0.302	1078.1	0.0591	1572.32	375.19	-44.00
89.526	0.510	1082.8	0.0448	1534.64	392.11	-25.88
100.000	1.000	1083.7	0.0000	1487.81	416.85	0.00
308.15 K						
0.000	0.000	994.0	0.0000	1520.30	435.26	0.00
4.015	0.005	998.9	0.0043	1528.46	428.51	-5.18
17.659	0.026	1015.6	0.0191	1558.50	405.34	-23.04
8.652	0.014	1004.5	0.0093	1538.46	420.60	-11.29
30.204	0.052	1031.6	0.0327	1588.11	384.34	-39.16
40.356	0.074	1044.8	0.0433	1608.50	369.92	-49.63
49.932	0.107	1057.3	0.0527	1624.35	358.44	-57.38
67.212	0.204	1075.4	0.0619	1624.94	352.14	-56.95
78.462	0.302	1086.6	0.0626	1605.29	357.10	-47.61
89.526	0.510	1091.2	0.0473	1567.64	372.90	-27.51
100.000	1.000	1091.5	0.0000	1520.35	396.32	0.00
298.15 K						
0.000	0.000	997.0	0.0000	1496.89	447.62	0.00
4.015	0.005	1002.1	0.0046	1508.31	438.60	-6.17
17.659	0.026	1019.8	0.0202	1548.64	408.84	-26.23
8.652	0.014	1008.0	0.0098	1521.19	428.68	-12.79
30.204	0.052	1036.7	0.0345	1586.57	383.20	-42.97
40.356	0.074	1050.7	0.0458	1619.42	362.91	-56.05
49.932	0.107	1063.9	0.0557	1643.90	347.80	-64.37
67.212	0.204	1083.6	0.0660	1659.17	335.21	-64.68
78.462	0.302	1094.9	0.0662	1637.87	340.45	-51.46
89.526	0.510	1099.5	0.0500	1600.71	354.96	-29.09
100.000	1.000	1099.6	0.0000	1553.90	376.61	0.00
288.15 K						
0.000	0.000	999.1	0.0000	1466.40	465.46	0.00
4.015	0.005	1004.5	0.0048	1480.50	454.17	-6.97
17.659	0.026	1023.2	0.0214	1532.71	415.99	-30.45
8.652	0.014	1010.7	0.0104	1497.34	441.26	-14.88
30.204	0.052	1041.1	0.0366	1584.94	382.34	-50.59
40.356	0.074	1056.0	0.0486	1627.40	357.53	-64.46
49.932	0.107	1070.3	0.0594	1661.58	338.39	-73.28

Tabla A.32. Continuación.

%1	x1	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
67.212	0.204	1091.4	0.0705	1685.28	322.59	-70.47
78.462	0.302	1103.1	0.0705	1670.94	324.68	-56.26
89.526	0.510	1107.7	0.0530	1635.07	337.67	-31.35
100.000	1.000	1107.7	0.0000	1588.51	357.74	0.00

Tabla A.33. Influencia de la composición sobre los índices de refracción, las variaciones de índices de refracción de la mezcla binaria %₁ Triton X-102 (1) – %₂ agua (2) en el intervalo de temperaturas (318.15- 288.15) K.

%1	x1	n_D				δn_D			
		318.15	308.15	298.15	288.15	318.15	308.15	298.15	288.15
0.000	0.000	1.32976	1.33125	1.33259	1.33353	0.00000	0.00000	0.00000	0.00000
4.442	0.001	1.33743	1.33872	1.34007	1.34114	0.00626	0.00604	0.00602	0.00613
10.234	0.003	1.34543	1.34678	1.34830	1.34958	0.01225	0.01206	0.01218	0.01246
19.451	0.006	1.35879	1.36071	1.36247	1.36403	0.02197	0.02229	0.02260	0.02308
31.577	0.012	1.37781	1.37985	1.38191	1.38379	0.03511	0.03547	0.03597	0.03666
39.676	0.016	1.38929	1.39191	1.39435	1.39658	0.04175	0.04260	0.04341	0.04436
50.442	0.025	1.40762	1.41056	1.41335	1.41607	0.05202	0.05307	0.05409	0.05538
59.454	0.035	1.42153	1.42537	1.42838	1.43141	0.05717	0.05899	0.06009	0.06151
69.120	0.053	1.43858	1.44190	1.44514	1.44811	0.06172	0.06282	0.06395	0.06507
80.711	0.095	1.45488	1.45845	1.46205	1.46558	0.05595	0.05697	0.05809	0.05934
90.303	0.191	1.46797	1.47163	1.47536	1.47909	0.03985	0.04051	0.04128	0.04217
100.000	1.000	1.47978	1.48357	1.48738	1.49122	0.00000	0.00000	0.00000	0.00000

Tabla A.34. Influencia de la composición sobre la densidad, el volumen de exceso, la velocidad del sonido, la compresibilidad isoentrópica, la variación de la compresibilidad isoentrópica de la mezcla binaria %₁ Triton X-102 (1) – %₂ agua (2) en el intervalo de temperaturas (318.15- 288.15) K.

%1	x1	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
318.15 K						
0.000	0.000	990.2	0.0000	1536.62	427.70	0.00
4.442	0.001	994.6	54.1855	1541.04	423.33	-4.97
10.234	0.003	999.4	115.7764	1546.03	418.62	-10.47
19.451	0.006	1007.6	183.3834	1555.01	410.42	-19.94
31.577	0.012	1018.5	220.1893	1567.52	399.56	-32.45
39.676	0.016	1026.0	211.2045	1575.38	392.71	-40.41
60.420	0.036	1044.8	78.3276	1583.04	381.93	-54.01
69.120	0.053	1050.2	14.1510	1576.28	383.21	-53.93
80.711	0.095	1055.5	-64.6292	1549.26	394.70	-44.03
90.303	0.191	1056.0	-68.7833	1513.61	413.32	-26.71

Tabla A.34. Continuación.

%1	x1	ρ	V^E	u	κ_S	$\delta\kappa_S$
		kg·m ⁻³	cm ³ ·mol ⁻¹	m·s ⁻¹	TPa ⁻¹	TPa ⁻¹
100.000	1.000	1053.2	0.0000	1466.72	441.36	0.00
308.15 K						
0.000	0.000	994.0	0.0000	1520.30	435.26	0.00
4.442	0.001	998.7	56.8708	1527.81	428.93	-5.58
10.234	0.003	1003.8	121.4063	1536.30	422.08	-11.46
19.451	0.006	1012.6	192.0079	1551.76	410.12	-21.88
31.577	0.012	1024.2	229.6503	1573.89	394.12	-35.84
39.676	0.016	1032.1	220.6059	1587.87	384.27	-44.34
60.420	0.036	1053.3	62.8573	1611.47	365.59	-59.54
69.120	0.053	1058.2	8.19573	1607.04	365.91	-57.76
80.711	0.095	1063.6	-72.1300	1582.33	375.48	-46.25
90.303	0.191	1064.0	-73.9967	1546.76	392.81	-27.31
100.000	1.000	1060.9	0.0000	1500.74	418.50	0.00
298.15 K						
0.000	0.000	997.0	0.0000	1496.89	447.62	0.00
4.442	0.001	1002.1	60.3259	1507.97	438.82	-6.53
10.234	0.003	1007.5	128.7517	1520.33	429.42	-12.97
19.451	0.006	1016.9	203.4934	1543.14	412.95	-24.73
31.577	0.012	1029.4	242.8357	1576.32	390.92	-40.57
39.676	0.016	1037.9	232.6769	1597.18	377.67	-49.68
60.420	0.036	1060.6	64.8802	1638.41	351.20	-65.55
69.120	0.053	1066.1	4.04516	1637.66	349.74	-62.58
80.711	0.095	1071.8	-78.5867	1616.47	357.05	-49.35
90.303	0.191	1072.1	-77.9916	1581.60	372.88	-28.62
100.000	1.000	1068.7	0.0000	1536.06	396.55	0.00
288.15 K						
0.000	0.000	999.1	0.0000	1466.40	465.46	0.00
4.442	0.001	1004.5	64.7017	1480.83	453.95	-7.51
10.234	0.003	1010.3	138.0822	1497.26	441.50	-14.74
19.451	0.006	1020.5	218.2626	1528.40	419.47	-28.47
31.577	0.012	1034.1	260.3440	1574.10	390.27	-46.75
39.676	0.016	1043.3	248.8713	1604.01	372.54	-57.20
60.420	0.036	1067.9	70.5003	1665.22	337.70	-73.34
69.120	0.053	1074.1	0.0110	1669.69	333.94	-69.27
80.711	0.095	1080.0	-83.0316	1653.12	338.82	-53.96
90.303	0.191	1080.2	-80.9451	1617.02	354.04	-30.10
100.000	1.000	1076.7	0.0000	1572.88	375.41	0.00

A. Tablas de Propiedad.

Tabla A.35. Influencia de la composición sobre los índices de refracción de la mezcla binaria %₁ Na₂SO₄ (1) – %₂ agua (2) en el intervalo de temperaturas (318.15- 288.15) K.

%1 T / K	n _D			
	318.15	308.15	298.15	288.15
0.000	1.32976	1.33125	1.33259	1.33353
1.943	1.33318	1.33460	1.33590	1.33695
4.948	1.33765	1.33857	1.33988	1.34105
5.404	1.33772	1.33922	1.34057	1.34181
10.936	1.34574	1.34733	1.34694	1.34873
13.863	1.33318	1.33922	1.34057	1.34181
17.352	1.34968	1.35114	1.35275	1.35427
22.617	1.37267	1.37491	1.33988	1.34105

Tabla A.36. Influencia de la composición sobre la densidad, la velocidad del sonido, la compresibilidad isoentrópica de la mezcla binaria %₁ Na₂SO₄ (1) – %₂ agua (2) en el intervalo de temperaturas (318.15-288.15) K.

%1	ρ	u	K _S
	g·cm ⁻³	m·s ⁻¹	TPa ⁻¹
318.15 K			
0.000	990.2	1536.62	427.70
1.943	1007.1	1555.96	410.10
4.948	1033.6	1586.19	384.53
5.404	1037.7	1589.47	381.44
10.936	1088.7	1646.98	338.62
13.863	1116.8	1678.12	317.96
17.352	1151.4	1718.53	294.07
22.617	1151.2	1718.66	294.08
308.15 K			
0.000	994.0	1520.30	435.26
1.943	1011.2	1541.05	416.41
4.948	1037.9	1572.47	389.65
5.404	1042.0	1576.44	386.15
10.936	1093.5	1637.47	341.06
13.863	1121.8	1670.35	319.49
17.352	1156.6	1713.74	294.38
22.617	1156.72	1713.79	294.34
298.15 K			
0.000	997.0	1496.89	447.62
1.943	1014.4	1519.07	427.16
4.948	1041.5	1552.80	398.18
5.404	1045.7	1557.16	394.36
10.936	1097.8	1622.15	346.17
13.863	1126.4	1657.91	322.99

Tabla A.36. Continuación.

%1	ρ	u	K_S
	$\text{g}\cdot\text{cm}^{-3}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}
17.352	1161.5	1704.43	296.36
22.617	1161.6	1704.64	296.26
288.15 K			
0.000	999.1	1466.40	465.46
1.943	1016.9	1489.53	443.21
4.948	1044.5	1526.05	411.10
5.404	1048.7	1530.96	406.80
10.936	1101.6	1600.63	354.32
13.863	1130.5	1639.17	329.21
17.352	1166.0	1689.78	300.35
22.617	1166.1	1689.78	300.33

Tabla A.37. Influencia de la composición sobre los índices de refracción de la mezcla binaria %₁ Na₂S₂O₃ (1) – %₂ agua (2) en el intervalo de temperaturas (318.15- 288.15) K.

%1 T / K	n_D			
	318.15	308.15	298.15	288.15
0.000	1.32976	1.33125	1.33259	1.33353
4.637	1.33775	1.33929	1.34073	1.34193
9.773	1.35007	1.35113	1.35264	1.35405
15.250	1.36103	1.36209	1.36343	1.36500
19.264	1.37197	1.37442	1.37621	1.37793
25.337	1.38553	1.38796	1.38974	1.39165
29.775	1.39493	1.39574	1.39716	1.39911
31.747	1.39944	1.40038	1.40190	1.40381

Tabla A.38. Influencia de la composición sobre la densidad, la velocidad del sonido, la compresibilidad isoentrópica de la mezcla binaria %₁ Na₂S₂O₃ (1) – %₂ agua (2) en el intervalo de temperaturas (318.15-288.15) K.

%1	ρ	u	K_S
	$\text{kg}\cdot\text{m}^{-3}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}
318.15 K			
0.000	990.2	1536.62	427.70
4.637	10276	1577.18	391.20
9.773	1069.7	1622.21	355.21
15.250	1116.9	1675.20	319.02
19.264	1156.1	1720.47	292.22
25.337	1209.9	1785.74	259.17
29.775	1253.0	1839.15	235.93
31.747	1274.8	1865.91	225.31
32.590	1283.1	1875.58	221.54

A. Tablas de Propiedad.

Tabla A.38. Continuación.

%1	ρ	u	K_S
	$\text{kg}\cdot\text{m}^{-3}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}
308.15 K			
0.000	994.0	1520.30	435.26
4.637	1031.9	1562.97	396.69
9.773	1074.5	1610.99	358.59
15.250	1122.1	1667.62	320.44
19.264	1161.5	1715.94	292.37
25.337	1215.8	1786.20	257.79
29.775	1259.1	1843.38	233.72
31.747	1281.0	1872.26	222.70
32.590	1289.3	1883.07	218.72
298.15 K			
0.000	997.0	1496.89	447.62
4.637	1035.5	1542.63	405.79
9.773	1078.7	1594.31	364.69
15.250	1126.9	1655.02	323.96
19.264	1166.7	1707.35	294.02
25.337	1221.4	1783.36	257.43
29.775	1265.0	1845.25	232.16
31.747	1287.0	1876.53	220.65
32.590	1295.4	1888.28	216.50
288.15 K			
0.000	999.1	1466.404	465.46
4.637	1038.4	1515.45	419.30
9.773	1082.4	1571.66	374.01
15.250	1131.2	1636.80	329.94
19.264	1171.5	1694.35	297.32
25.337	1226.7	1776.79	258.20
29.775	1270.7	1844.55	231.29
31.747	1292.8	1878.28	219.25
32.590	1301.3	1891.26	214.84

Tabla A.39. Influencia de la composición sobre los índices de refracción de la mezcla binaria %₁ K₂HPO₄ (1) – %₂ agua (2) en el intervalo de temperaturas (318.15- 288.15) K.

%1 T / K	n_D			
	318.15	308.15	298.15	288.15
0.000	1.32976	1.33125	1.33259	1.33353
5.668	1.33699	1.33841	1.33971	1.34084
10.942	1.34319	1.34454	1.34596	1.34723
21.225	1.36237	1.36349	1.36513	1.36667
30.916	1.37821	1.37911	1.38060	1.38215
41.184	1.39394	1.39598	1.39762	1.39918
50.435	1.41028	1.41145	1.41296	1.41458
57.731	1.42227	1.42378	1.42518	1.42659

Tabla A.40. Influencia de la composición sobre la densidad, la velocidad del sonido, la compresibilidad isoentrópica de la mezcla binaria %₁ K₂HPO₄ (1) – %₂ agua (2) en el intervalo de temperaturas (318.15-288.15) K.

% ₁	ρ	u	κ_S
	kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
318.15 K			
0.000	1038.9	1583.49	383.87
5.668	1085.8	1628.72	347.16
10.942	1182.7	1728.33	283.05
21.225	1285.8	1847.40	227.87
30.916	1407.9	2005.92	176.51
41.184	1529.0	2165.97	139.40
50.435	1048.9	1593.68	375.37
57.731	1038.9	1583.49	383.87
308.15 K			
0.000	1043.2	1569.87	388.96
5.668	1090.4	1617.06	350.69
10.942	1187.8	1722.20	283.83
21.225	1291.3	1847.53	226.87
30.916	1413.6	2013.02	174.56
41.184	1534.5	2178.26	137.31
50.435	1053.2	1579.85	380.40
57.731	1043.2	1569.87	388.96
298.15 K			
0.000	1046.8	1549.73	397.75
5.668	1094.5	1599.80	356.96
10.942	1192.6	1711.78	286.14
21.225	1296.6	1844.80	226.61
30.916	1419.2	2018.24	172.98
41.184	1540.5	2189.68	135.38
50.435	1056.9	1560.61	388.46
57.731	1046.8	1549.73	397.75
288.15 K			
0.000	1049.7	1522.55	410.94
5.668	1098.1	1576.36	366.48
10.942	1197.1	1696.28	290.31
21.225	1301.6	1838.52	227.28
30.916	1424.7	2021.67	171.73
41.184	1546.2	2199.92	133.63
50.435	1060.0	1533.89	400.95
57.731	1049.7	1522.55	410.94

A. Tablas de Propiedad.

Tabla A.41. Influencia de la composición sobre los índices de refracción de la mezcla binaria %₁ K₃PO₄ (1) – %₂ agua (2) en el intervalo de temperaturas (318.15- 288.15) K.

T / K	%1	<i>n_D</i>			
		318.15	308.15	298.15	288.15
0.000		1.32976	1.33125	1.33259	1.33353
5.090		1.33800	1.34039	1.34183	1.34301
11.034		1.34895	1.35088	1.35245	1.35381
20.408		1.36663	1.36744	1.36881	1.37038
30.371		1.38537	1.38636	1.38786	1.38953
33.130		1.39072	1.39166	1.39339	1.39515

Tabla A.42. Influencia de la composición sobre la densidad, la velocidad del sonido, la compresibilidad isoentrópica de la mezcla binaria %₁ K₃PO₄ (1) – %₂ agua (2) en el intervalo de temperaturas (318.15-288.15) K.

% ₁	<i>ρ</i>	<i>u</i>	<i>K_S</i>
	g·cm ⁻³	m·s ⁻¹	TPa ⁻¹
318.15 K			
0.000	990.20	1536.62	427.70
5.090	1036.8	1581.44	385.62
11.034	1094.2	1637.19	340.94
20.408	1192.7	1745.73	275.11
30.371	1309.4	1895.71	212.51
33.130	1344.9	1945.30	196.49
308.15 K			
0.000	994.0	1520.30	435.26
5.090	1041.1	1567.03	391.13
11.034	1099.0	1626.03	344.12
20.408	1198.0	1741.12	275.33
30.371	1315.2	1898.50	210.95
33.130	1350.7	1950.07	194.68
298.15 K			
0.000	997.0	1496.89	447.62
5.090	1044.8	1547.11	399.87
11.034	1103.3	1610.18	349.57
20.408	1203.1	1732.67	276.86
30.371	1320.8	1898.53	210.05
33.130	1356.5	1952.52	193.37
288.15 K			
0.000	999.1	1466.40	465.46
5.090	1047.7	1519.92	413.15
11.034	1107.0	1587.86	358.26
20.408	1207.8	1719.53	280.01
30.371	1326.2	1895.54	209.85
33.130	1362.0	1951.87	192.70

Tabla A.43. Influencia de la composición sobre los índices de refracción de la mezcla ternaria %₁ Na₂SO₄ (1) – %₂ Tween 20 (2) - %₃ agua (3) en el intervalo de temperaturas (318.15- 288.15) K.

% ₁ T / K	% ₂	<i>n_D</i>			
		318.15	308.15	298.15	288.15
0.000	0.000	1.32976	1.33125	1.33259	1.33353
0.000	100.00	1.46180	1.46535	1.46895	1.47253
1.565	0.000	1.33221	1.33369	1.33494	1.33594
1.565	3.435	1.33723	1.33858	1.34001	1.34108
1.565	8.435	1.34313	1.34501	1.34656	1.34783
1.565	13.435	1.35007	1.35144	1.35310	1.35452
1.565	23.435	1.36297	1.36556	1.36779	1.36965
1.565	38.435	1.38362	1.38610	1.38849	1.39062
1.565	83.435	1.44393	1.44705	1.45068	1.45425
4.989	0.000	1.33697	1.33845	1.33985	1.34105
4.989	0.011	1.33753	1.33913	1.34054	1.34176
4.989	10.011	1.35206	1.35360	1.35413	1.35566
4.989	20.011	1.36321	1.36472	1.36655	1.36831
4.989	30.011	1.37101	1.37351	1.37563	1.37770
6.500	0.000	1.33974	1.34110	1.34245	1.34369
6.500	1.500	1.34299	1.34465	1.34619	1.34752
6.500	5.500	1.34701	1.34835	1.35045	1.35191
6.500	9.500	1.35092	1.35244	1.35398	1.35551
8.588	0.000	1.34214	1.34359	1.34511	1.34645
8.588	1.412	1.34334	1.34565	1.34729	1.34871
8.588	3.412	1.34450	1.34620	1.34781	1.34920
10.799	0.000	1.34513	1.34696	1.34853	1.34993

Tabla A.44. Influencia de la composición sobre la densidad, la velocidad del sonido, la compresibilidad isoentrópica de la mezcla ternaria %₁ Na₂SO₄ (1) – %₂ Tween 20 (2) - %₃ agua (3) en el intervalo de temperaturas (318.15-288.15) K.

% ₁	% ₂	<i>ρ</i>	<i>u</i>	<i>κ_S</i>
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
318.15				
0.000	0.000	990.2	1536.62	427.70
0.000	100.00	1083.7	1487.81	416.85
1.565	0.000	1004.0	1553.28	412.83
1.565	3.435	1007.3	1557.03	409.46
1.565	8.435	1014.4	1565.07	402.45
1.565	13.435	1020.3	1572.50	396.32
1.565	23.435	1032.1	1586.58	384.90
1.565	38.435	1048.9	1603.11	370.97
1.565	83.435	1081.5	1555.53	382.13
4.989	0.000	1034.7	1587.00	383.72
4.989	0.011	1036.4	1588.23	382.48

Tabla A.44. Continuación.

$\%_1$	$\%_2$	ρ	u	κ_s
		$\text{kg}\cdot\text{m}^{-3}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}
4.989	10.011	1044.9	1600.74	373.47
4.989	20.011	1058.7	1610.28	364.26
4.989	30.011	1062.5	1613.87	361.32
6.500	0.000	1049.1	1602.43	371.21
6.500	1.500	1051.4	1604.79	369.29
6.500	5.500	1055.0	1608.64	366.28
6.500	9.500	1059.2	1612.64	363.02
8.588	0.000	1066.2	1623.05	356.01
8.588	1.412	1069.2	1625.10	354.14
8.588	3.412	1071.4	1626.91	352.62
10.799	0.000	1087.5	1644.84	339.87
308.15				
0.000	0.000	994.0	1520.30	435.26
0.000	100.00	1091.5	1520.35	396.32
1.565	0.000	1007.8	1537.21	419.88
1.565	3.435	1011.3	1544.01	414.74
1.565	8.435	1018.7	1555.20	405.83
1.565	13.435	1025.1	1566.59	397.47
1.565	23.435	1037.4	1587.91	382.29
1.565	38.435	1055.3	1615.83	362.94
1.565	83.435	1089.6	1588.14	363.85
4.989	0.000	1039.1	1573.26	388.80
4.989	0.011	1039.7	1573.86	388.28
4.989	10.011	1049.7	1598.34	372.88
4.989	20.011	1063.3	1612.37	361.75
4.989	30.011	1067.4	1620.02	356.96
6.500	0.000	1053.5	1589.70	375.57
6.500	1.500	1055.8	1593.19	373.12
6.500	5.500	1059.7	1600.22	368.51
6.500	9.500	1064.1	1607.45	363.70
8.588	0.000	1071.3	1610.25	359.97
8.588	1.412	1074.3	1615.05	356.86
8.588	3.412	1076.0	1617.97	354.99
10.799	0.000	1092.2	1634.91	342.54
298.15				
0.000	0.000	997.0	1496.89	447.62
0.000	100.00	1099.6	1553.90	376.61
1.565	0.000	1011.1	1515.31	424.03
1.565	3.435	1014.8	1524.41	412.45
1.565	8.435	1022.5	1539.82	401.78
1.565	13.435	1029.2	1555.05	381.91
1.565	23.435	1042.2	1585.04	356.30
1.565	38.435	1061.1	1626.29	346.56

Tabla A.44. Continuación.

% ₁	% ₂	ρ	u	K_S
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
1.565	83.435	1097.9	1621.12	397.29
4.989	0.000	1042.8	1553.62	396.68
4.989	0.011	1043.4	1554.34	375.04
4.989	10.011	1054.4	1590.22	361.34
4.989	20.011	1068.2	1609.55	353.70
4.989	30.011	1072.8	1623.38	383.07
6.500	0.000	1057.4	1571.19	379.84
6.500	1.500	1059.8	1576.08	373.23
6.500	5.500	1063.9	1586.92	366.86
6.500	9.500	1068.5	1597.15	366.19
8.588	0.000	1075.4	1593.50	362.29
8.588	1.412	1078.5	1599.77	359.95
8.588	3.412	1080.3	1603.60	347.69
10.799	0.000	1096.5	1619.56	430.72
288.15				
0.000	0.000	999.1	1466.404	465.46
0.000	100.00	1107.7	1588.51	357.74
1.565	0.000	1013.4	1485.99	446.84
1.565	3.435	1017.4	1497.87	438.06
1.565	8.435	1025.5	1517.24	423.57
1.565	13.435	1032.6	1537.11	409.85
1.565	23.435	1046.4	1576.85	384.34
1.565	38.435	1066.5	1633.50	351.37
1.565	83.435	1106.1	1655.46	329.86
4.989	0.000	1045.7	1527.03	410.07
4.989	0.011	1046.4	1528.04	409.28
4.989	10.011	1058.4	1576.58	380.10
4.989	20.011	1072.4	1601.73	363.44
4.989	30.011	1077.7	1622.23	352.59
6.500	0.000	1060.6	1545.77	394.57
6.500	1.500	1063.1	1552.31	390.33
6.500	5.500	1067.5	1566.90	381.53
6.500	9.500	1072.4	1581.29	372.91
8.588	0.000	1078.9	1569.87	376.08
8.588	1.412	1082.1	1577.91	371.15
8.588	3.412	1084.0	1583.38	367.93
10.799	0.000	1100.2	1597.91	355.95

A. Tablas de Propiedad.

Tabla A.45. Influencia de la composición sobre los índices de refracción de la mezcla ternaria %₁ Na₂S₂O₃ (1) – %₂ Tween 20 (2) - %₃ agua (3) en el intervalo de temperaturas (318.15- 288.15) K.

% ₁ T / K	% ₂	<i>n_D</i>			
		318.15	308.15	298.15	288.15
0.000	0.000	1.32976	1.33125	1.33259	1.33353
0.000	100.00	1.46180	1.46535	1.46895	1.47253
1.937	0.0000	1.33259	1.33399	1.33524	1.33622
1.937	23.062	1.36231	1.36515	1.36731	1.36903
1.937	38.062	1.38153	1.38453	1.38671	1.38868
1.937	48.981	1.39960	1.40437	1.40715	1.40976
1.937	10.062	1.34716	1.34877	1.34987	1.35121
1.937	13.062	1.35115	1.35363	1.35616	1.35877
4.865	0.000	1.34983	1.34124	1.34266	1.34390
4.865	0.134	1.34000	1.34139	1.34268	1.34389
4.865	5.134	1.34659	1.34833	1.34994	1.35127
4.865	10.134	1.35366	1.35581	1.35748	1.35894
4.865	20.134	1.36698	1.36968	1.37193	1.37373
4.865	30.134	1.38130	1.38286	1.38507	1.38710
7.000	0.000	1.34123	1.34356	1.34361	1.34487
7.000	3.000	1.34863	1.34978	1.35106	1.35245
7.000	13.000	1.36210	1.36380	1.36574	1.36745
7.000	23.000	1.37556	1.37703	1.37920	1.38119
7.000	28.000	1.39100	1.39246	1.39538	1.39829
9.883	0.000	1.34958	1.35139	1.35293	1.35431
9.883	0.116	1.35059	1.35158	1.35268	1.35404
9.883	5.116	1.35658	1.3589	1.36054	1.36200
9.883	10.116	1.36367	1.36497	1.36663	1.36830
12.000	0.000	1.35188	1.35389	1.35547	1.35688
12.000	1.000	1.35507	1.35706	1.35875	1.36033
12.000	3.000	1.35874	1.36071	1.36193	1.36354

Tabla A.46. Influencia de la composición sobre la densidad, la velocidad del sonido, la compresibilidad isoentrópica de la mezcla ternaria %₁ Na₂S₂O₃ (1) – %₂ Tween 20 (2) - %₃ agua (3) en el intervalo de temperaturas (318.15- 288.15) K.

% ₁	% ₂	<i>ρ</i>	<i>u</i>	<i>K_S</i>
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
318.15				
0.000	0.0000	990.2	1536.62	427.70
0.000	100.00	1083.7	1487.81	416.85
1.937	0.0000	1005.5	1553.77	411.92
1.937	23.062	1033.8	1587.76	383.70
1.937	38.062	1051.5	1605.29	369.04

Tabla A.46. Continuación.

% ₁	% ₂	ρ	u	K_S
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
1.937	48.981	1064.1	1611.83	361.71
1.937	10.062	1017.5	1568.85	399.26
1.937	13.062	1021.6	1573.09	395.55
4.865	0.000	1028.5	1577.80	390.53
4.865	0.134	1029.0	1578.67	389.92
4.865	5.134	1034.4	1585.88	384.36
4.865	10.134	1040.9	1592.67	378.72
4.865	20.134	1054.6	1606.81	367.23
4.865	30.134	1066.5	1617.14	358.53
7.000	0.000	1046.6	1597.63	374.32
7.000	3.000	1049.4	1601.25	371.63
7.000	13.000	1061.8	1614.03	361.52
7.000	23.000	1074.5	1624.33	352.73
7.000	28.000	1084.0	1634.45	345.31
9.883	0.000	1069.4	1622.58	355.17
9.883	0.116	1069.7	1623.04	354.85
9.883	5.116	1077.3	1630.27	349.25
9.883	10.116	1080.2	1633.29	347.03
12.000	0.000	1087.9	1642.66	340.63
12.000	1.000	1089.0	1644.02	339.73
12.000	3.000	1091.4	1646.75	337.87
308.15				
0.000	0.000	994.0	1520.30	435.26
0.000	100.00	1091.5	1520.35	396.32
1.937	0.0000	1009.6	1537.84	418.80
1.937	23.062	1039.1	1589.08	381.08
1.937	38.062	1058.3	1619.05	360.45
1.937	48.981	1072.0	1633.44	349.60
1.937	10.062	1022.1	1559.87	402.06
1.937	13.062	1026.4	1566.88	396.83
4.865	0.000	1032.8	1563.76	395.93
4.865	0.134	1033.3	1564.61	395.32
4.865	5.134	1039.3	1575.05	387.84
4.865	10.134	1045.8	1586.09	380.09
4.865	20.134	1060.1	1608.42	364.60
4.865	30.134	1072.7	1627.15	352.10
7.000	0.000	1051.1	1584.46	378.93
7.000	3.000	1054.1	1590.72	374.90
7.000	13.000	1067.0	1611.88	360.70
7.000	23.000	1080.3	1630.35	348.22
7.000	28.000	1089.8	1642.84	339.96
9.883	0.000	1074.1	1610.87	358.77
9.883	0.116	1074.5	1611.69	358.28
9.883	5.116	1082.3	1623.35	350.59
9.883	10.116	1085.5	1630.17	346.65

Tabla A.46. Continuación.

% ₁	% ₂	ρ	u	K_S
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
12.000	0.000	1092.8	1632.60	343.29
12.000	1.000	1094.0	1634.57	342.10
12.000	3.000	1096.4	1639.10	339.46
298.15				
0.000	0.000	997.0	1496.89	447.62
0.000	100.00	1099.6	1553.90	376.61
1.937	0.0000	1012.9	1515.78	429.68
1.937	23.062	1044.0	1586.45	380.57
1.937	38.062	1064.3	1630.41	353.45
1.937	48.981	1078.7	1653.60	339.02
1.937	10.062	1026.1	1545.49	408.01
1.937	13.062	1030.5	1555.38	401.10
4.865	0.000	1036.5	1543.67	404.87
4.865	0.134	1037.0	1545.04	403.96
4.865	5.134	1043.3	1559.12	394.29
4.865	10.134	1050.1	1574.59	384.07
4.865	20.134	1062.1	1605.89	365.06
4.865	30.134	1078.3	1633.38	347.58
7.000	0.000	1055.0	1565.69	386.63
7.000	3.000	1058.2	1574.60	381.13
7.000	13.000	1071.8	1604.36	362.47
7.000	23.000	1085.8	1632.59	345.53
7.000	28.000	1095.4	1646.67	336.65
9.883	0.000	1078.3	1594.05	364.95
9.883	0.116	1078.7	1594.72	364.51
9.883	5.116	1086.9	1611.51	354.27
9.883	10.116	1090.4	1623.08	348.12
12.000	0.000	1097.3	1617.38	348.36
12.000	1.000	1098.5	1620.19	346.77
12.000	3.000	1101.1	1626.64	343.22
288.15				
0.000	0.000	999.1	1466.40	465.46
0.000	100.00	1107.7	1588.51	357.74
1.937	0.0000	1015.3	1486.72	445.57
1.937	23.062	1048.2	1578.66	382.77
1.937	38.062	1069.8	1638.42	348.20
1.937	48.981	1085.3	1671.69	329.72
1.937	10.062	1029.3	1524.60	417.97
1.937	13.062	1034.0	1537.18	409.29
4.865	0.000	1039.4	1516.58	418.29
4.865	0.134	1039.9	1517.96	417.32
4.865	5.134	1046.6	1536.92	404.48
4.865	10.134	1053.8	1556.57	391.65
4.865	20.134	1069.6	1598.08	366.06

Tabla A.46. Continuación.

% ₁	% ₂	ρ	u	K_S
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
4.865	30.134	1083.5	1636.39	344.67
7.000	0.000	1058.3	1540.35	398.23
7.000	3.000	1061.7	1551.96	391.05
7.000	13.000	1076.0	1591.58	366.87
7.000	23.000	1090.8	1630.26	344.93
7.000	28.000	1100.6	1646.37	335.19
9.883	0.000	1082.0	1571.09	374.42
9.883	0.116	1082.4	1571.47	374.10
9.883	5.116	1090.9	1593.82	360.83
9.883	10.116	1094.7	1610.28	352.26
12.000	0.000	1101.2	1596.00	356.48
12.000	1.000	1102.5	1599.91	354.32
12.000	3.000	1105.2	1608.31	349.77

Tabla A.47. Influencia de la composición sobre los índices de refracción de la mezcla ternaria %₁ K₂HPO₄ (1) – %₂ Tween 20 (2) - %₃ agua (3) en el intervalo de temperaturas (318.15- 288.15) K.

% ₁	% ₂	n_D			
		318.15	308.15	298.15	288.15
T / K					
0.000	0.000	1.32976	1.33125	1.33259	1.33353
0.000	100.00	1.46180	1.46535	1.46895	1.47253
1.526	0.000	1.33174	1.33323	1.33439	1.33535
1.526	3.475	1.33633	1.33781	1.33899	1.34002
1.526	7.970	1.34273	1.34414	1.34570	1.34696
1.526	11.976	1.34813	1.34960	1.35107	1.35253
1.526	18.054	1.35595	1.35717	1.35896	1.36057
1.526	23.198	1.36336	1.36472	1.36669	1.36844
1.526	29.933	1.37235	1.37403	1.37613	1.37794
1.526	38.586	1.38492	1.38629	1.38834	1.39046
3.205	0.000	1.33549	1.33691	1.33824	1.33934
3.205	7.357	1.34482	1.34634	1.34785	1.34916
3.205	11.303	1.34964	1.35146	1.35318	1.35471
3.205	17.515	1.35859	1.36009	1.36194	1.36362
3.205	22.157	1.36509	1.36659	1.36862	1.37042
5.192	0.000	1.33802	1.33944	1.34076	1.34194
5.192	1.581	1.33982	1.34115	1.34235	1.34359
5.192	7.038	1.34745	1.34857	1.35016	1.35152
5.192	15.117	1.36068	1.36249	1.36446	1.36619
5.192	4.822	1.34417	1.34617	1.34778	1.34902
7.195	0.000	1.34116	1.34244	1.34381	1.34505
7.195	3.279	1.34616	1.34739	1.34826	1.34945
7.195	6.252	1.34867	1.35008	1.35164	1.35308

A. Tablas de Propiedad.

Tabla A.48. Influencia de la composición sobre los índices de refracción de la mezcla ternaria %₁ K₂HPO₄ (1) – %₂ Tween 20 (2) - %₃ agua (3) en el intervalo de temperaturas (318.15- 288.15) K.

% ₁	% ₂	ρ	u	κ_S
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
318.15				
0.000	0.000	990.2	1536.62	427.70
0.000	100.00	1083.7	1487.81	416.85
1.526	0.000	1003.3	1550.41	414.63
1.526	3.475	1007.4	1555.54	410.20
1.526	7.970	1012.9	1562.36	404.44
1.526	11.976	1017.1	1567.39	400.18
1.526	18.054	1024.5	1576.27	392.85
1.526	23.198	1030.5	1583.25	387.12
1.526	29.933	1038.5	1591.73	380.04
1.526	38.586	1049.8	1602.39	370.96
3.205	0.000	1017.0	1563.56	402.18
3.205	7.357	1024.5	1573.51	394.20
3.205	11.303	1032.2	1581.36	387.39
3.205	17.515	1037.6	1587.81	382.26
3.205	22.157	1045.3	1595.58	375.76
5.192	0.000	1027.0	1580.00	390.02
5.192	1.581	1036.0	1582.37	385.46
5.192	15.117	1041.9	1588.94	380.15
5.192	4.822	1040.8	1587.55	381.21
7.195	0.000	1050.6	1596.13	373.59
7.195	3.279	1057.2	1601.87	368.63
7.195	6.252	1058.6	1604.20	367.05
308.15				
0.000	0.000	994.0	1520.30	435.26
0.000	100.00	1091.5	1520.35	396.32
1.526	0.000	1007.2	1534.11	421.83
1.526	3.475	1011.6	1541.86	415.80
1.526	7.970	1017.3	1551.66	408.27
1.526	11.976	1021.7	1559.35	402.50
1.526	18.054	1029.4	1573.08	392.54
1.526	23.198	1035.7	1584.25	384.66
1.526	29.933	1044.2	1597.67	375.16
1.526	38.586	1056.1	1615.59	362.75
3.205	0.000	1021.1	1548.28	408.52
3.205	7.357	1029.0	1563.69	397.42
3.205	11.303	1036.9	1574.06	389.22
3.205	17.515	1042.7	1585.44	381.53
3.205	22.157	1050.7	1596.98	373.18
5.192	0.000	1038.9	1565.71	392.63
5.192	1.581	1040.4	1569.03	390.42
5.192	15.117	1046.5	1579.65	382.94
5.192	4.822	1045.3	1576.48	384.91

Tabla A.49. Continuación.

$\%_1$	$\%_2$	ρ kg·m ⁻³	u m·s ⁻¹	K_S TPa ⁻¹
7.195	0.000	1055.0	1582.90	378.29
7.195	3.279	1061.7	1591.25	371.95
7.195	6.252	1063.3	1595.17	369.57
298.15				
0.000	0.000	997.0	1496.89	447.62
0.000	100.00	1099.6	1553.90	376.61
1.526	0.000	1010.4	1511.37	433.25
1.526	3.475	1015.0	1521.58	425.53
1.526	7.970	1021.0	1534.94	415.70
1.526	11.976	1025.7	1546.38	407.70
1.526	18.054	1033.8	1564.82	395.03
1.526	23.198	1040.4	1580.31	384.84
1.526	29.933	1049.4	1600.01	372.21
1.526	38.586	1062.0	1625.76	356.25
3.205	0.000	1024.5	1526.55	418.85
3.205	7.357	1032.9	1547.97	404.03
3.205	11.303	1041.0	1561.60	393.90
3.205	17.515	1047.2	1578.52	383.23
3.205	22.157	1055.5	1594.37	372.69
5.192	0.000	1042.5	1545.37	401.64
5.192	1.581	1044.0	1550.12	398.60
5.192	15.117	1050.5	1564.85	388.73
5.192	4.822	1049.2	1559.93	391.67
7.195	0.000	1058.7	1563.87	386.18
7.195	3.279	1065.7	1575.20	378.15
7.195	6.252	1067.5	1581.25	374.65
288.15				
0.000	0.000	999.1	1466.40	465.46
0.000	100.00	1107.7	1588.51	357.74
1.526	0.000	1012.7	1481.62	449.79
1.526	3.475	1017.6	1494.66	439.88
1.526	7.970	1023.9	1511.39	427.55
1.526	11.976	1028.9	1526.26	417.22
1.526	18.054	1037.4	1550.84	400.76
1.526	23.198	1044.5	1571.44	387.67
1.526	29.933	1054.1	1598.66	371.19
1.526	38.586	1067.4	1633.15	351.25
3.205	0.000	1027.0	1498.34	433.69
3.205	7.357	1035.9	1525.31	414.88
3.205	11.303	1044.4	1542.49	402.41
3.205	17.515	1051.1	1566.46	387.72
3.205	22.157	1059.7	1586.09	375.08
5.192	0.000	1045.3	1518.13	415.05

Tabla A.48. Continuación.

% ₁	% ₂	ρ	u	κ_s
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
5.192	1.581	1047.0	1523.94	411.25
5.192	15.117	1053.8	1544.11	397.99
5.192	4.822	1052.3	1537.27	402.11
7.195	0.000	1061.8	1538.04	398.11
7.195	3.279	1069.1	1552.63	388.01
7.195	6.252	1071.0	1561.77	382.79

Tabla A. 49. Influencia de la composición sobre los índices de refracción de la mezcla ternaria %₁ K₃PO₄ (1) – %₂ Tween 20 (2) - %₃ agua (3) en el intervalo de temperaturas (318.15- 288.15) K.

% ₁	% ₂	n_D			
		318.15	308.15	298.15	288.15
T / K					
0.000	0.000	1.32976	1.33125	1.33259	1.33353
0.000	100.00	1.46180	1.46535	1.46895	1.47253
2.002	0.100	1.33369	1.33510	1.33634	1.33736
2.002	7.507	1.34346	1.34511	1.34656	1.34785
2.002	15.161	1.35424	1.35550	1.35729	1.35887
2.002	22.596	1.36440	1.36579	1.36776	1.36957
2.002	30.790	1.37563	1.37667	1.37855	1.38045
4.303	26.999	1.37439	1.37608	1.37825	1.38026
4.400	14.330	1.35575	1.35703	1.35870	1.36031
4.410	6.570	1.34662	1.34789	1.34917	1.35051
4.423	0.000	1.33793	1.33933	1.34070	1.34188
4.428	6.371	1.34607	1.34728	1.34876	1.35007
4.435	21.676	1.36779	1.36856	1.37051	1.37227
4.440	6.387	1.34697	1.34799	1.34929	1.35063
4.521	2.752	1.34274	1.34221	1.34575	1.34725
7.338	4.179	1.34871	1.34987	1.35130	1.35274
7.350	8.329	1.35469	1.35594	1.35762	1.35915
7.373	12.786	1.35815	1.36235	1.36422	1.36593
7.386	2.310	1.34619	1.34738	1.34879	1.35016
7.419	0.000	1.34257	1.34387	1.34533	1.34659
7.451	5.996	1.35159	1.35277	1.35395	1.35532
7.482	6.459	1.35192	1.35321	1.35483	1.35631
10.259	3.585	1.35288	1.35403	1.35563	1.35708
10.268	0.000	1.34832	1.34961	1.35095	1.35237
10.318	2.170	1.35054	1.35171	1.35311	1.35547

Tabla A.50. Influencia de la sobre la densidad, la velocidad del sonido, la compresibilidad isoentrópica de la mezcla ternaria %₁ K₃PO₄ (1) – %₂ Tween 20 (2) - %₃ agua (3) en el intervalo de temperaturas (318.15- 288.15) K.

% ₁	% ₂	ρ kg·m ⁻³	u m·s ⁻¹	K_S TPa ⁻¹
318.15				
0.000	0.000	990.2	1536.62	427.70
0.000	100.00	1083.7	1487.81	416.85
2.002	0.100	1009.3	1555.69	409.36
2.002	7.507	1017.9	1574.74	396.14
2.002	15.161	1027.3	1588.26	385.89
2.002	22.596	1036.9	1598.93	377.22
2.002	30.790	1045.8	1608.23	369.68
4.303	26.999	1061.9	1628.30	355.16
4.400	14.330	1047.7	1609.85	368.28
4.410	6.570	1038.8	1592.82	379.41
4.423	0.000	1030.8	1575.67	390.75
4.428	6.371	1037.	1590.90	380.74
4.435	21.676	1057.3	1623.69	358.73
4.440	6.387	1039.0	1592.28	379.60
4.521	2.752	1035.5	1584.94	384.40
7.338	4.179	1063.1	1612.00	361.98
7.350	8.329	1069.8	1623.70	354.54
7.373	12.786	1073.6	1631.11	350.08
7.386	2.310	1061.5	1608.04	364.31
7.419	0.000	1058.8	1602.43	367.81
7.451	5.996	1066.1	1617.36	358.55
7.482	6.459	1067.6	1619.14	357.27
10.259	3.585	1091.1	1638.49	341.37
10.268	0.000	1084.1	1633.15	345.83
10.318	2.170	1090.4	1635.87	342.68
308.15				
0.000	0.000	994.0	1520.30	435.26
0.000	100.00	1091.5	1520.35	396.32
2.002	0.100	1013.4	1539.95	416.08
2.002	7.507	1022.3	1564.24	399.75
2.002	15.161	1032.0	1582.98	386.67
2.002	22.596	1042.1	1600.46	374.60
2.002	30.790	1051.6	1615.57	364.33
4.303	26.999	1067.5	1634.32	350.69
4.400	14.330	1052.6	1606.04	368.30
4.410	6.570	1043.4	1583.16	382.38
4.423	0.000	1035.0	1560.84	396.58
4.428	6.371	1042.2	1581.33	383.70
4.435	21.676	1062.7	1625.85	355.98
4.440	6.387	1043.5	1583.03	382.38

A. Tablas de Propiedad.

Tabla A.50. Continuación.

% ₁	% ₂	ρ	u	K_S
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
4.521	2.752	1039.9	1572.90	388.66
7.338	4.179	1067.7	1602.11	364.87
7.350	8.329	1074.7	1617.16	355.80
7.373	12.786	1078.7	1627.96	349.79
7.386	2.310	1066.1	1596.66	367.94
7.419	0.000	1063.3	1589.46	372.26
7.451	5.996	1070.9	1608.89	360.73
7.482	6.459	1072.4	1611.17	359.21
10.259	3.585	1096.0	1630.14	343.35
10.268	0.000	1087.7	1622.18	349.37
10.318	2.170	1095.2	1626.25	345.23
298.15				
0.000	0.000	997.0	1496.89	447.62
0.000	100.00	1099.6	1553.90	376.61
2.002	0.100	1016.7	1517.75	426.95
2.002	7.507	1026.0	1548.90	406.24
2.002	15.161	1036.2	1573.15	389.95
2.002	22.596	1046.9	1597.86	374.12
2.002	30.790	1056.8	1619.37	360.81
4.303	26.999	1072.7	1636.84	347.93
4.400	14.330	1057.0	1597.67	370.64
4.410	6.570	1047.3	1568.13	388.29
4.423	0.000	1038.6	1540.34	405.80
4.428	6.371	1046.1	1565.92	389.83
4.435	21.676	1067.5	1624.00	355.18
4.440	6.387	1047.4	1567.88	388.35
4.521	2.752	1043.7	1555.01	396.22
7.338	4.179	1071.8	1587.07	370.40
7.350	8.329	1079.0	1606.07	359.28
7.373	12.786	1083.2	1620.40	351.58
7.386	2.310	1070.1	1579.80	374.42
7.419	0.000	1067.1	1571.22	379.56
7.451	5.996	1075.1	1595.14	365.55
7.482	6.459	1076.6	1598.31	363.58
10.259	3.585	1100.3	1616.71	347.70
10.268	0.000	1092.8	1605.58	354.97
10.318	2.170	1099.5	1611.47	350.22
288.15				
0.000	0.000	999.1	1466.40	465.46
0.000	100.00	1107.7	1588.51	357.74
2.002	0.100	1019.2	1488.53	442.81
2.002	7.507	1028.9	1526.33	417.15
2.002	15.161	1039.6	1557.98	396.26
2.002	22.596	1051.0	1591.04	375.85
2.002	30.790	1061.6	1619.18	359.29

Tabla A.50. Continuación.

% ₁	% ₂	ρ	u	K_S
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
4.303	26.999	1077.3	1635.20	347.13
4.400	14.330	1060.7	1583.53	375.96
4.410	6.570	1050.5	1546.58	397.96
4.423	0.000	1041.4	1512.75	419.60
4.428	6.371	1049.3	1544.03	399.75
4.435	21.676	1071.8	1617.92	356.42
4.440	6.387	1050.7	1545.98	398.21
4.521	2.752	1046.7	1531.23	407.45
7.338	4.179	1075.3	1565.99	379.21
7.350	8.329	1082.7	1589.54	365.52
7.373	12.786	1087.2	1607.36	356.00
7.386	2.310	1073.4	1556.82	384.35
7.419	0.000	1070.4	1545.55	391.09
7.451	5.996	1078.7	1575.64	373.41
7.482	6.459	1082.9	1579.55	370.12
10.259	3.585	1104.1	1597.64	354.82
10.268	0.000	1097.2	1582.93	363.74
10.318	2.170	1103.2	1591.14	358.01

Tabla A.51. Influencia de la composición sobre los índices de refracción de la mezcla ternaria %₁ Na₂SO₄ (1) – %₂ Triton X-102 (2) - %₃ agua (3) en el intervalo de temperaturas (318.15-288.15) K.

% ₁	% ₂	n_D			
		318.15	308.15	298.15	288.15
T / K					
0.000	0.000	1.32976	1.33125	1.33259	1.33353
0.000	100.00	1.47978	1.48357	1.48738	1.49122
2.508	4.404	1.34062	1.34254	1.34406	1.34536
2.518	10.388	1.34732	1.34944	1.35089	1.35224
2.552	14.763	1.35351	1.35898	1.36095	1.36173
2.522	17.513	1.35893	1.36221	1.36444	1.36597
2.471	23.230	1.36805	1.37023	1.37235	1.37465
2.500	25.893	1.38499	1.38685	1.38862	1.38975
2.553	32.171	1.38313	1.38735	1.38974	1.39199
2.592	29.458	1.37792	1.38046	1.38281	1.38497
5.068	5.508	1.34595	1.34656	1.34895	1.35045
5.003	7.787	1.34985	1.35207	1.35395	1.35554
5.014	8.209	1.35061	1.35288	1.35477	1.35630
4.947	13.626	1.35084	1.34569	1.34786	1.34978
5.002	16.758	1.34386	1.34341	1.34533	1.34704
9.172	0.535	1.34352	1.34538	1.34662	1.34800
9.120	0.938	1.34420	1.34612	1.34694	1.34825
9.005	1.157	1.34485	1.34678	1.34733	1.34857
9.058	2.085	1.34500	1.34720	1.34816	1.34911
2.494	0.000	1.33365	1.33523	1.33657	1.33775
5.108	0.000	1.33790	1.34064	1.34167	1.34275
9.034	0.000	1.34272	1.34456	1.34606	1.34741

A. Tablas de Propiedad.

Tabla A.52. Influencia de la composición sobre la densidad, la velocidad del sonido, la compresibilidad isoentrópica de la mezcla ternaria %₁ Na₂SO₄ (1) – %₂ Triton X-102 (2) - %₃ agua (3) en el intervalo de temperaturas (318.15-288.15) K.

% ₁	% ₂	ρ kg·m ⁻³	u m·s ⁻¹	K_S TPa ⁻¹
318.15				
0.000	0.000	990.2	1536.62	427.70
0.000	100.00	1053.2	1466.72	441.36
2.508	4.404	1016.2	1565.46	401.54
2.518	10.388	1021.9	1571.02	396.46
2.552	14.763	1026.1	1574.69	393.02
2.522	17.513	1025.4	1573.94	393.65
2.471	23.230	1032.9	1580.84	387.39
2.500	25.893	1036.3	1583.95	384.58
2.553	32.171	1041.7	1587.92	380.70
2.592	29.458	1039.6	1586.71	382.03
5.068	5.508	1040.1	1590.94	379.82
5.003	7.787	1041.7	1592.02	378.76
5.014	8.209	1042.1	1592.43	378.41
4.947	13.626	1046.6	1595.48	375.34
5.002	16.758	1050.1	1598.84	372.52
9.172	0.535	1072.5	1628.62	351.50
9.120	0.938	1072.3	1628.27	351.74
9.005	1.157	1071.5	1627.52	352.30
9.058	2.085	1072.5	1629.03	351.34
2.494	0.000	1012.0	1561.77	405.09
5.108	0.000	1035.3	1587.30	383.36
9.034	0.000	1070.3	1627.02	352.73
308.15 K				
0.000	0.000	994.0	1520.30	435.26
0.000	100.00	1060.9	1500.74	418.50
2.508	4.404	1020.5	1554.01	405.75
2.518	10.388	1026.6	1564.03	398.18
2.552	14.763	1031.0	1570.68	393.14
2.522	17.513	1030.4	1570.85	393.27
2.471	23.230	1038.3	1582.99	384.31
2.500	25.893	1042.1	1589.28	379.91
2.553	32.171	1047.4	1597.23	374.12
2.592	29.458	1045.5	1593.72	376.57
5.068	5.508	1044.8	1581.85	382.50
5.003	7.787	1046.4	1584.94	380.40
5.014	8.209	1046.9	1585.44	380.01
4.947	13.626	1057.4	1592.35	372.97
5.002	16.758	1055.4	1598.22	370.93
9.172	0.535	1077.2	1617.84	354.65

Tabla A.52. Continuación.

% ₁	% ₂	P	u	κ_S
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
9.120	0.938	1077.1	1617.87	354.68
9.005	1.157	1076.1	1617.48	355.19
9.058	2.085	1077.4	1620.25	353.55
2.494	0.000	1016.1	1546.83	411.30
5.108	0.000	1039.6	1573.79	388.35
9.034	0.000	1075.6	1615.80	356.10
298.15				
0.000	0.000	997.0	1496.89	447.62
0.000	100.00	1068.7	1536.06	396.55
2.508	4.404	1024.1	1535.79	413.95
2.518	10.388	1030.7	1551.53	403.01
2.552	14.763	1035.	1561.63	396.02
2.522	17.513	1034.9	1562.82	395.61
2.471	23.230	1043.3	1580.94	383.48
2.500	25.893	1047.3	1590.70	377.34
2.553	32.171	1053.2	1603.24	369.37
2.592	29.458	1050.9	1597.10	373.05
5.068	5.508	1048.8	1567.24	388.15
5.003	7.787	1050.7	1572.55	384.86
5.014	8.209	1051.1	1573.13	384.41
4.947	13.626	1056.3	1583.65	377.46
5.002	16.758	1060.3	1593.95	371.20
9.172	0.535	1081.4	1601.23	360.64
9.120	0.938	1081.3	1601.64	360.49
9.005	1.157	1080.4	1601.42	360.91
9.058	2.085	1081.7	1604.73	358.99
2.494	0.000	1019.5	1525.36	421.56
5.108	0.000	1043.3	1554.25	396.76
9.034	0.000	1079.7	1598.97	362.25
288.15				
0.000	0.000	999.1	1466.40	465.46
0.000	100.00	1076.	1572.88	375.41
2.508	4.404	1027.0	1510.69	426.62
2.518	10.388	1034.1	1532.43	411.76
2.552	14.763	1039.1	1546.33	402.44
2.522	17.513	1038.7	1548.47	401.50
2.471	23.230	1047.7	1574.06	385.22
2.500	25.893	1052.0	1588.12	376.86
2.553	32.171	1058.3	1605.12	366.73
2.592	29.458	1055.8	1596.47	371.61
5.068	5.508	1052.6	1545.63	397.66
5.003	7.787	1054.3	1553.71	392.89
5.014	8.209	1054.7	1554.43	392.37
4.947	13.626	1060.4	1571.35	381.93

Tabla A.52. Continuación.

% ₁	% ₂	ρ	u	κ_S
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
5.002	16.758	1064.6	1584.49	374.11
9.172	0.535	1085.0	1578.30	369.97
9.120	0.938	1085.0	1579.38	369.47
9.005	1.157	1084.3	1579.25	369.77
9.058	2.085	1085.4	1582.82	367.73
2.494	0.000	1022.0	1496.73	436.75
5.108	0.000	1046.3	1527.64	409.54
9.034	0.000	1083.2	1575.79	371.76

Tabla A.53. Influencia de la composición sobre los índices de refracción de la mezcla ternaria %₁ Na₂S₂O₃ (1) – %₂ Triton X-102 (2)- %₃ agua (3) en el intervalo de temperaturas (318.15- 288.15) K.

% ₁	% ₂	n_D			
		318.15	308.15	298.15	288.15
T / K					
0.000	0.000	1.32976	1.33125	1.33259	1.33353
0.000	100.00	1.47978	1.48357	1.48738	1.49122
2.523	0.000	1.34202	1.34362	1.34503	1.34620
2.523	5.566	1.35047	1.35471	1.35780	1.35967
2.523	10.012	1.34939	1.35194	1.35362	1.35769
2.523	14.991	1.35203	1.35463	1.35629	1.35769
2.523	20.038	1.36107	1.36137	1.35629	1.35769
2.523	23.940	1.37156	1.37381	1.37673	1.37883
2.523	26.236	1.38811	1.39124	1.39393	1.39639
2.523	30.007	1.39735	1.40175	1.40507	1.40849
2.523	40.301	1.36334	1.36596	1.36807	1.36972
2.523	45.913	1.40633	1.41041	1.41568	1.41767
4.931	15.144	1.36302	1.36594	1.36799	1.36968
4.953	20.041	1.36446	1.36592	1.37473	1.37439
5.043	0.000	1.34202	1.34362	1.34503	1.34620
5.077	4.961	1.35866	1.36080	1.36252	1.36366
5.077	5.566	1.35047	1.35471	1.35780	1.35967
5.077	10.071	1.35491	1.35763	1.35973	1.36126
5.077	13.248	1.35064	1.35297	1.35494	1.35625
5.077	15.144	1.36302	1.36594	1.36799	1.36968
5.077	24.984	1.35364	1.35571	1.36358	1.36693
7.539	0.000	1.34514	1.34663	1.34802	1.34931
7.539	1.792	1.35657	1.35875	1.36019	1.36165
7.539	8.272	1.35426	1.35666	1.35829	1.35991
7.539	12.264	1.35827	1.35893	1.35933	1.36090
7.539	13.248	1.35064	1.35297	1.35494	1.35625
7.539	15.090	1.35096	1.35371	1.35577	1.35751
7.539	20.057	1.35271	1.35486	1.35698	1.35923
9.966	0.000	1.34514	1.34663	1.34802	1.34931

Tabla A.53. Continuación.

% ₁ T / K	% ₂	<i>n_D</i>			
		318.15	308.15	298.15	288.15
9.966	3.230	1.35700	1.35935	1.36099	1.36250
9.966	4.961	1.35866	1.36080	1.36252	1.36366
12.442	0.000	1.34202	1.34362	1.34503	1.34620
12.442	1.7917	1.35660	1.35880	1.36020	1.36170
12.442	3.2298	1.35700	1.35940	1.36100	1.36250
12.442	4.9610	1.35870	1.36080	1.36250	1.36370

Tabla A.54. Influencia de la composición sobre la densidad, la velocidad del sonido, la compresibilidad isoentrópica de la mezcla ternaria %₁ Na₂S₂O₃ (1) – %₂ Triton X-102 (2) - %₃ agua (3) en el intervalo de temperaturas (318.15- 288.15) K.

% ₁	% ₂	<i>ρ</i>	<i>u</i>	<i>K_S</i>
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
318.15				
0.000	0.000	990.2	1536.62	427.70
0.000	100.00	1053.2	1466.72	441.36
2.523	0.000	1010.3	1558.22	407.63
2.523	4.499	1015.2	1562.75	403.32
2.523	4.922	1015.0	1563.06	403.24
2.523	9.437	1019.1	1566.41	399.90
2.523	10.012	1019.3	1566.72	399.66
2.523	14.804	1024.2	1571.38	395.38
2.523	14.991	1024.6	1571.66	395.11
2.523	19.703	1028.4	1575.36	391.81
2.523	20.038	1029.4	1576.24	390.99
2.523	23.940	1032.5	1580.11	387.91
2.523	25.891	1033.2	1581.07	387.16
2.523	30.424	1038.7	1584.99	383.20
2.523	39.462	1046.1	1590.28	377.99
2.523	45.913	1052.5	1592.68	374.55
5.077	0.000	1030.6	1580.89	388.23
5.077	5.566	1036.3	1584.71	384.25
5.077	10.071	1039.3	1587.04	382.00
5.077	15.144	1044.3	1591.22	378.19
5.077	24.984	1053.5	1598.42	371.51
7.539	0.000	1050.6	1601.14	371.25
7.539	9.705	1060.2	1608.34	364.63
7.539	13.248	1063.2	1608.93	363.31
7.539	15.090	1065.1	1611.73	361.40
7.539	20.057	1069.1	1619.28	356.72
7.577	3.994	1054.9	1604.75	368.07
9.966	0.000	1071.3	1624.03	353.89

Tabla A.54. Continuación.

$\%_1$	$\%_2$	ρ	u	K_S
		$\text{kg}\cdot\text{m}^{-3}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}
9.966	8.272	1079.3	1636.78	345.84
9.966	12.264	1082.8	1643.08	342.09
10.017	4.437	1075.7	1627.44	350.97
12.442	0.000	1091.4	1646.06	338.16
12.442	1.792	1094.6	1645.95	337.21
12.442	3.230	1095.8	1649.55	335.38
12.442	4.961	1097.6	1654.71	332.74
308.15				
0.000	0.000	994.0	1520.30	435.26
0.000	100.00	1060.9	1500.74	418.50
2.523	0.000	1014.4	1543.08	414.00
2.523	4.499	1019.5	1550.86	407.79
2.523	4.922	1019.4	1551.51	407.51
2.523	9.437	1023.8	1558.28	402.24
2.523	10.012	1024.0	1558.74	401.92
2.523	14.804	1029.2	1567.30	395.52
2.523	14.991	1029.5	1567.77	395.16
2.523	19.703	1033.6	1574.88	390.07
2.523	20.038	1034.7	1576.41	388.91
2.523	23.940	1037.9	1582.66	384.62
2.523	25.891	1039.2	1585.01	383.01
2.523	30.424	1044.6	1592.28	377.56
2.523	39.462	1052.4	1604.68	368.99
2.523	45.913	1059.3	1612.88	362.87
5.077	0.000	1035.0	1566.95	393.48
5.077	5.566	1040.9	1575.13	387.20
5.077	10.071	1044.2	1580.97	383.13
5.077	15.144	1049.5	1588.80	377.46
5.077	24.984	1059.2	1602.95	367.42
7.539	0.000	1055.2	1588.57	375.53
7.539	9.705	1065.3	1603.51	365.06
7.539	13.248	1068.6	1608.91	361.48
7.539	15.090	1071.0	1611.53	359.51
7.539	20.057	1075.3	1618.38	355.04
7.577	3.994	1059.7	1595.15	370.84
9.966	0.000	1076.1	1612.65	357.32
9.966	8.272	1084.8	1628.27	347.68
9.966	12.264	1088.9	1635.22	343.43
10.017	4.437	1080.8	1619.92	352.57
12.442	0.000	1096.3	1636.25	340.69
12.442	1.792	1099.7	1641.48	337.47
12.442	3.230	1101.0	1644.38	335.87
12.442	4.961	1103.0	1648.46	333.61

Tabla A.54. Continuación.

% ₁	% ₂	ρ	u	K_S
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
298.15				
0.000	0.000	997.0	1496.89	447.62
0.000	100.00	1068.7	1536.06	396.55
2.523	0.000	1017.7	1521.33	424.52
2.523	4.499	1023.2	1532.30	416.22
2.523	4.922	1023.1	1533.63	415.56
2.523	9.437	1027.8	1545.07	407.53
2.523	10.012	1028.0	1544.97	407.52
2.523	14.804	1033.6	1557.99	398.56
2.523	14.991	1033.9	1558.64	398.10
2.523	19.703	1038.3	1569.68	390.88
2.523	20.038	1039.4	1571.99	389.30
2.523	23.940	1043.0	1581.06	383.52
2.523	25.891	1044.4	1585.02	381.09
2.523	30.424	1050.1	1596.23	373.74
2.523	39.462	1058.5	1616.57	361.48
2.523	45.913	1066.2	1631.39	352.41
5.077	0.000	1038.7	1546.91	402.31
5.077	5.566	1045.0	1559.83	393.29
5.077	10.071	1048.6	1569.73	387.01
5.077	15.144	1054.2	1581.74	379.14
5.077	24.984	1064.5	1603.54	365.31
7.539	0.000	1059.2	1570.35	382.85
7.539	9.705	1070.0	1593.73	367.94
7.539	13.248	1073.5	1604.89	361.64
7.539	15.090	1076.0	1607.42	359.67
7.539	20.057	1080.6	1616.00	354.35
7.577	3.994	1064.0	1580.79	376.09
9.966	0.000	1080.3	1595.76	363.49
9.966	8.272	1089.7	1614.30	352.13
9.966	12.264	1094.2	1624.07	346.49
10.017	4.437	1085.4	1606.14	357.12
12.442	0.000	1100.8	1621.06	345.69
12.442	1.792	1104.4	1627.50	341.83
12.442	3.230	1105.8	1630.90	339.98
12.442	4.961	1107.8	1635.60	337.41
288.15				
0.000	0.000	999.1	1466.40	465.46
0.000	100.00	1076.7	1572.88	375.41
2.523	0.000	1020.3	1492.48	439.99
2.523	4.499	1026.1	1507.05	429.07
2.523	4.922	1026.0	1508.57	428.26
2.523	9.437	1031.2	1524.54	417.23
2.523	10.012	1031.3	1524.16	417.38
2.523	14.804	1037.3	1542.32	405.23
2.523	14.991	1037.7	1543.11	404.68

Tabla A.54. Continuación.

% ₁	% ₂	P	u	κ_S
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
2.523	19.703	1042.4	1558.79	394.80
2.523	20.038	1043.6	1562.06	392.68
2.523	23.940	1047.5	1574.62	385.00
2.523	25.891	1049.1	1580.55	381.56
2.523	30.424	1055.0	1596.41	371.89
2.523	39.462	1064.3	1625.48	355.60
2.523	45.913	1073.1	1647.76	343.20
5.077	0.000	1041.7	1519.70	415.65
5.077	5.566	1048.4	1537.80	403.33
5.077	10.071	1052.3	1552.10	394.44
5.077	15.144	1058.3	1569.13	383.75
5.077	24.984	1069.4	1599.71	365.40
7.539	0.000	1062.5	1545.18	394.18
7.539	9.705	1074.1	1578.33	373.73
7.539	13.248	1077.9	1596.30	364.06
7.539	15.090	1080.5	1601.16	360.98
7.539	20.057	1085.4	1612.38	354.38
7.577	3.994	1067.6	1559.70	385.01
9.966	0.000	1084.0	1572.86	372.88
9.966	8.272	1094.1	1594.63	359.41
9.966	12.264	1098.9	1606.98	352.37
10.017	4.437	1089.5	1586.55	364.61
12.442	0.000	1104.8	1600.18	353.48
12.442	1.792	1108.6	1607.62	349.00
12.442	3.230	1110.2	1611.39	346.89
12.442	4.961	1112.4	1616.51	344.01

Tabla A.55. Influencia de la composición sobre los índices de refracción de la mezcla ternaria %₁ K₂HPO₄ (1) – %₂ Triton X-102 (2) - %₃ agua (3) en el intervalo de temperaturas (318.15- 288.15) K.

% ₁	% ₂	n_D			
		318.15	308.15	298.15	288.15
T / K					
0.000	0.000	1.32976	1.33125	1.33259	1.33353
0.000	100.00	1.47978	1.48357	1.48738	1.49122
2.510	0.000	1.33405	1.33569	1.33705	1.33812
2.510	7.029	1.34467	1.34673	1.34823	1.34945
2.510	10.669	1.35001	1.35249	1.35397	1.35528
2.510	15.113	1.35708	1.35974	1.36158	1.36316
2.510	20.162	1.36457	1.36692	1.36897	1.37062
2.510	25.734	1.37352	1.37682	1.37984	1.38143
2.510	29.995	1.37931	1.38222	1.38463	1.38677
2.510	35.171	1.38811	1.39039	1.39296	1.39530
5.040	0.000	1.34207	1.34089	1.33960	1.33818
5.040	5.737	1.35552	1.35354	1.35001	1.34783
5.040	12.916	1.36161	1.36112	1.35979	1.35698

Tabla A.55. Continuación.

% ₁ T / K	% ₂	<i>n_D</i>			
		318.15	308.15	298.15	288.15
5.040	15.053	1.36165	1.35772	1.35122	1.34788
5.040	19.990	1.34935	1.34746	1.34522	1.34298
5.040	26.176	1.35050	1.34811	1.34676	1.34481
7.500	0.000	1.34210	1.34307	1.34453	1.34588
7.500	8.401	1.34359	1.34576	1.34800	1.34929
7.500	11.892	1.34419	1.34619	1.34818	1.34978
7.500	15.259	1.34725	1.34862	1.34966	1.35165
10.027	0.000	1.34587	1.34704	1.34806	1.34935
10.027	1.569	1.34619	1.34774	1.34939	1.35061
10.027	3.062	1.34709	1.34840	1.35032	1.35156
10.027	0.999	1.34602	1.34767	1.34938	1.35065
12.555	0.503	1.34910	1.35085	1.35238	1.35362
12.555	0.000	1.34890	1.35039	1.35174	1.35319
12.555	0.448	1.34952	1.35105	1.35261	1.35388

Tabla A.56. Influencia de la composición sobre la densidad, la velocidad del sonido, la compresibilidad isoentrópica de la mezcla ternaria %₁ K₂HPO₄ (1) – %₂ Triton X-102 (2) - %₃ agua (3) en el intervalo de temperaturas (318.15- 288.15) K.

% ₁	% ₂	ρ	u	κ_s
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
318.15				
0.000	0.000	990.2	1536.62	427.70
0.000	100.00	1053.2	1466.72	441.36
2.510	0.000	1011.1	1558.45	407.18
2.510	7.029	1017.3	1563.26	402.21
2.510	10.669	1020.8	1566.42	399.24
2.510	15.113	1025.5	1570.71	395.24
2.510	20.162	1029.6	1574.67	391.68
2.510	25.734	1034.4	1579.93	387.25
2.510	29.995	1037.9	1582.64	384.64
2.510	35.171	1043.2	1586.11	381.02
5.002	0.000	1033.5	1579.20	387.98
5.002	8.546	1040.6	1584.45	382.77
5.002	16.688	1047.5	1589.80	377.68
5.002	21.124	1054.2	1595.08	372.81
5.002	25.089	1056.8	1598.29	370.41
5.002	3.987	1035.7	1580.49	386.50
7.487	0.000	1053.4	1597.55	371.95
7.487	11.892	1065.7	1610.59	361.71
7.487	8.401	1062.2	1607.66	364.24
7.487	15.259	1074.8	1620.26	354.38

A. Tablas de Propiedad.

Tabla A.56. Continuación.

% ₁	% ₂	ρ	u	\mathcal{K}_S
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
10.027	0.000	1075.9	1619.23	354.49
10.027	1.569	1077.5	1620.52	353.38
10.027	3.062	1078.9	1624.09	351.38
10.027	0.999	1076.5	1619.67	354.10
12.555	0.503	1098.8	1641.55	337.71
12.555	0.000	1098.5	1642.81	337.28
12.555	0.221	1101.1	1643.62	336.17
12.555	0.448	1099.0	1642.16	337.42
308.15				
0.000	0.000	994.0	1520.30	435.26
0.000	100.00	1060.9	1500.74	418.50
2.510	0.000	1015.1	1543.45	413.50
2.510	7.029	1021.8	1552.93	405.81
2.510	10.669	1025.4	1558.72	401.37
2.510	15.113	1030.3	1566.33	395.58
2.510	20.162	1034.8	1574.02	390.03
2.510	25.734	1040.1	1583.49	383.43
2.510	29.995	1043.7	1589.31	379.29
2.510	35.171	1049.3	1596.87	373.71
5.002	0.000	1037.7	1564.97	393.46
5.002	8.546	1045.3	1576.62	384.84
5.002	16.688	1052.7	1588.11	376.62
5.002	21.124	1059.4	1593.87	371.55
5.002	25.089	1062.4	1600.45	367.47
5.002	3.987	1040.2	1569.15	390.44
7.487	0.000	1057.7	1584.49	376.55
7.487	11.892	1071.0	1602.20	363.72
7.487	8.401	1067.2	1597.77	367.02
7.487	15.259	1079.8	1610.29	357.12
10.027	0.000	1080.4	1606.99	358.39
10.027	1.569	1082.2	1609.55	356.66
10.027	3.062	1083.7	1612.44	354.90
10.027	0.999	1081.1	1608.14	357.65
12.555	0.503	1103.6	1630.92	340.66
12.555	0.000	1103.2	1631.76	340.41
12.555	0.221	1105.8	1632.96	339.12
12.555	0.448	1103.6	1631.10	340.57
298.15				
0.000	0.000	997.4	1496.89	447.62
0.000	100.00	1068.7	1536.06	396.55
2.510	0.000	1018.5	1521.74	423.99
2.510	7.029	1025.5	1536.47	413.03
2.510	10.669	1029.4	1545.32	406.77
2.510	15.113	1034.7	1556.70	398.82
2.510	20.162	1039.5	1568.70	390.92

Tabla A.56. Continuación.

% ₁	% ₂	ρ	u	K_S
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
2.510	25.734	1045.1	1582.96	381.83
2.510	29.995	1049.1	1592.35	375.92
2.510	35.171	1054.9	1604.55	368.18
5.002	0.000	1041.2	1544.79	402.43
5.002	8.546	1049.4	1563.39	389.84
5.002	16.688	1057.4	1581.73	377.99
5.002	21.124	1064.1	1588.56	372.40
5.002	25.089	1067.5	1600.35	365.75
5.002	3.987	1044.0	1551.96	397.67
7.487	0.000	1061.5	1565.60	384.31
7.487	11.892	1075.5	1587.81	368.77
7.487	8.401	1071.7	1582.28	372.67
7.487	15.259	1084.3	1594.52	362.73
10.027	0.000	1084.4	1589.31	365.06
10.027	1.569	1086.4	1592.94	362.75
10.027	3.062	1088.0	1595.41	361.09
10.027	0.999	1085.2	1591.10	363.97
12.555	0.503	1107.8	1614.85	346.14
12.555	0.000	1107.4	1615.45	346.00
12.555	0.221	1110.1	1616.95	344.53
12.555	0.448	1107.9	1615.02	346.05
288.15				
0.000	0.000	999.1	1466.40	465.46
0.000	100.00	1076.7	1572.88	375.41
2.510	0.000	1020.9	1492.96	439.42
2.510	7.029	1028.5	1512.87	424.78
2.510	10.669	1032.7	1524.95	416.39
2.510	15.113	1038.3	1540.73	405.70
2.510	20.162	1043.5	1557.66	394.95
2.510	25.734	1049.6	1577.68	382.75
2.510	29.995	1053.9	1591.44	374.62
2.510	35.171	1060.1	1608.69	364.49
5.002	0.000	1044.1	1517.30	416.02
5.002	8.546	1052.9	1543.67	398.54
5.002	16.688	1061.5	1570.03	382.16
5.002	21.124	1068.2	1577.96	375.97
5.002	25.089	1072.1	1595.71	366.29
5.002	3.987	1047.1	1527.88	409.09
7.487	0.000	1064.7	1539.87	396.10
7.487	11.892	1079.5	1567.06	377.21
7.487	8.401	1075.6	1560.67	381.68
7.487	15.259	1088.1	1573.08	371.37
10.027	0.000	1087.8	1565.37	375.13
10.027	1.569	1090.0	1570.38	372.02

A. Tablas de Propiedad.

Tabla A.56. Continuación.

% ₁	% ₂	ρ	u	K_S
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
10.027	3.062	1091.7	1572.35	370.50
10.027	0.999	1088.7	1567.93	373.60
12.555	0.503	1111.6	1592.63	354.67
12.555	0.000	1111.1	1593.00	354.64
12.555	0.221	1113.8	1594.71	353.03
12.555	0.448	1111.6	1592.80	354.57

Tabla A.57. Influencia de la composición sobre los índices de refracción de la mezcla ternaria %₁ K₃PO₄ (1) – %₂ Triton X-102 (2) - %₃ agua (3) en el intervalo de temperaturas (318.15- 288.15) K.

% ₁ T / K	% ₂	n_D			
		318.15	308.15	298.15	288.15
0.000	0.000	1.32976	1.33125	1.33259	1.33353
0.000	100.00	1.47978	1.48357	1.48738	1.49122
2.526	0.000	1.33332	1.33490	1.33621	1.33726
2.526	2.697	1.33847	1.34042	1.34179	1.34294
2.526	4.864	1.34014	1.34214	1.34357	1.34475
2.526	7.833	1.34581	1.34825	1.34985	1.35113
2.526	10.037	1.34831	1.35039	1.35389	1.35461
2.526	12.579	1.35275	1.35557	1.35760	1.35897
2.526	14.410	1.35633	1.35892	1.36150	1.36231
2.526	16.834	1.35881	1.36073	1.36241	1.36394
2.526	20.124	1.36415	1.36786	1.36985	1.37155
2.526	22.606	1.37059	1.37361	1.37499	1.37606
2.526	27.645	1.37689	1.37979	1.38305	1.38532
2.526	30.584	1.38049	1.38328	1.38579	1.38772
2.526	34.247	1.38682	1.39059	1.39356	1.39604
2.526	36.844	1.39302	1.39641	1.39942	1.40227
2.526	40.793	1.34523	1.34694	1.34933	1.35130
5.019	5.194	1.34669	1.34888	1.35076	1.35185
5.019	10.088	1.35396	1.35551	1.35762	1.35961
5.019	10.119	1.34593	1.34752	1.35026	1.35343
5.019	12.758	1.35820	1.36112	1.36278	1.36442
5.019	17.584	1.34416	1.34616	1.34869	1.35083
5.019	18.535	1.34437	1.34600	1.34854	1.35031
5.019	24.892	1.34539	1.34767	1.35014	1.35153
5.019	29.939	1.34825	1.35058	1.35235	1.35416
5.019	33.127	1.34917	1.35155	1.35370	1.35550
5.104	0.000	1.33867	1.34046	1.34197	1.34311
5.104	7.355	1.35010	1.35301	1.35364	1.35524
5.104	15.055	1.34436	1.34687	1.35144	1.35368
5.104	15.405	1.34498	1.34679	1.34904	1.35136
5.104	20.360	1.34483	1.34742	1.35027	1.35186
5.104	25.360	1.34758	1.35020	1.35234	1.35416
5.104	27.311	1.34703	1.34900	1.35118	1.35305
5.104	30.660	1.34825	1.35067	1.35254	1.35430

Tabla A.58. Continuación.

% ₁ T / K	% ₂	<i>n_D</i>			
		318.15	308.15	298.15	288.15
5.104	35.587	1.35316	1.35701	1.36182	1.36575
5.104	40.438	1.35449	1.35818	1.36222	1.36498
5.504	0.000	1.33981	1.34111	1.34229	1.34344
5.504	2.669	1.35244	1.35522	1.35696	1.35839
5.504	4.871	1.34415	1.34884	1.35053	1.35217
5.504	22.915	1.34744	1.34903	1.35116	1.35333
7.580	2.579	1.34433	1.34620	1.34773	1.34911
7.580	5.190	1.34579	1.34729	1.34909	1.35071
7.580	10.178	1.34578	1.34853	1.34947	1.35109
7.580	12.750	1.34748	1.34963	1.35133	1.35305
7.580	15.304	1.34823	1.35032	1.35195	1.35359
7.580	17.057	1.34852	1.35081	1.35270	1.35436
7.580	19.608	1.34964	1.35197	1.35263	1.35415
7.580	25.580	1.35298	1.35474	1.35660	1.35830
7.580	28.363	1.35453	1.35652	1.35844	1.36015
7.580	30.964	1.35591	1.35859	1.36096	1.36291
7.580	0.000	1.34337	1.34526	1.34683	1.34808
7.580	7.489	1.34602	1.34727	1.34896	1.35039
7.580	22.786	1.35119	1.35302	1.35468	1.35615
10.249	0.000	1.34573	1.34719	1.34847	1.34980
10.249	0.888	1.34862	1.35051	1.35145	1.35289
10.249	2.218	1.34861	1.35053	1.35207	1.35347
10.249	2.931	1.34889	1.35065	1.35218	1.35373

Tabla A.59. Influencia de la composición sobre la densidad, la velocidad del sonido, la compresibilidad isoentrópica de la mezcla ternaria %₁ K₃PO₄ (1) – %₂ Triton X-102 (2) - %₃ agua (3) en el intervalo de temperaturas (318.15- 288.15) K.

% ₁	% ₂	<i>ρ</i>	<i>u</i>	<i>K_S</i>
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
318.15				
0.000	0.000	990.2	1536.62	427.70
0.000	100.00	1053.2	1466.72	441.36
2.526	0.000	1009.3	1556.04	409.17
2.526	2.697	1016.4	1562.65	402.89
2.526	4.864	1017.0	1562.97	402.47
2.526	7.833	1020.6	1566.40	399.31
2.526	10.037	1022.0	1567.68	398.11
2.526	12.579	1024.4	1569.48	396.29
2.526	14.410	1025.	1570.46	395.47
2.526	16.834	1028.6	1573.51	392.64
2.526	20.124	1032.1	1576.72	389.73
2.526	22.606	1032.9	1577.57	389.01

A. Tablas de Propiedad.

Tabla A.58. Continuación.

% ₁	% ₂	ρ	u	K_S
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
2.526	26.671	1037.4	1581.66	385.29
2.526	34.247	1044.4	1587.04	380.14
2.526	35.380	1044.9	1587.31	379.81
2.526	36.844	1045.9	1588.05	379.09
2.526	40.793	1048.8	1589.24	377.50
5.019	2.669	1110.2	1654.80	328.90
5.019	5.194	1040.5	1584.40	382.83
5.019	10.088	1044.9	1587.80	379.59
5.019	12.758	1047.7	1590.06	377.51
5.019	17.584	1052.7	1594.54	373.61
5.019	18.535	1052.9	1594.09	373.73
5.019	22.915	1061.9	1605.69	365.22
5.019	24.892	1065.0	1608.80	362.78
5.019	27.311	1070.7	1603.97	363.01
5.019	29.939	1076.3	1599.34	363.21
5.019	30.660	1060.5	1610.24	363.67
5.104	0.000	1037.0	1581.06	385.77
5.104	4.871	1042.6	1585.84	381.37
5.104	7.355	1043.4	1586.71	380.64
5.104	10.119	1046.1	1588.55	378.80
5.104	15.055	1051.1	1592.40	375.16
5.104	15.405	1051.2	1592.80	374.94
5.104	20.360	1055.9	1595.78	371.90
5.104	25.360	1061.9	1602.84	366.54
5.104	35.587	1086.5	1615.93	352.47
7.580	0.000	1061.5	1603.90	366.26
7.580	2.579	1065.3	1607.64	363.20
7.580	2.794	1065.2	1460.79	439.91
7.580	5.190	1066.1	1608.55	362.51
7.580	7.489	1067.1	1612.14	360.56
7.580	10.178	1070.7	1616.28	357.50
7.580	12.750	1076.5	1622.61	352.79
7.580	15.304	1083.0	1628.01	348.37
7.580	17.057	1088.8	1632.73	344.51
7.580	19.608	1091.5	1636.76	341.98
7.580	22.786	1099.0	1644.14	336.51
7.580	25.580	1108.0	1658.09	328.28
7.580	28.363	1109.6	1662.24	326.15
7.580	30.964	1120.5	1673.33	318.71
10.249	0.000	1079.3	1622.28	352.04
10.249	0.888	1086.0	1629.61	346.44
10.249	2.218	1089.3	1632.96	344.27
10.249	2.931	1059.1	1635.70	352.90
		308.15		
0.000	0.000	994.0	1520.30	435.26

Tabla A.58. Continuación.

% ₁	% ₂	ρ	u	K_S
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
0.000	100.00	1060.9	1500.74	418.50
2.526	0.000	1013.3	1540.43	415.85
2.526	2.697	1020.6	1549.49	408.06
2.526	4.864	1021.4	1551.28	406.83
2.526	7.833	1025.1	1556.98	402.37
2.526	10.037	1026.7	1559.72	400.36
2.526	12.579	1029.2	1563.25	397.60
2.526	14.410	1030.1	1565.73	395.97
2.526	16.834	1033.7	1570.60	392.16
2.526	20.124	1037.3	1576.12	388.06
2.526	22.606	1038.3	1578.81	386.36
2.526	26.671	1043.1	1585.97	381.14
2.526	34.247	1050.4	1597.07	373.21
2.526	35.380	1051.1	1598.35	375.97
2.526	36.844	1052.2	1600.13	371.18
2.526	40.793	1055.2	1604.92	367.90
5.019	2.669	1115.4	1645.24	331.19
5.019	5.194	1045.1	1574.19	386.11
5.019	10.088	1049.8	1581.18	381.00
5.019	12.758	1052.7	1585.62	377.81
5.019	17.584	1058.0	1593.38	372.28
5.019	18.535	1058.3	1593.62	372.06
5.019	22.915	1067.4	1602.55	364.78
5.019	24.892	1070.7	1604.31	362.86
5.019	27.311	1077.2	1609.87	358.18
5.019	29.939	1083.8	1611.47	355.29
5.019	30.660	1067.4	1614.66	359.33
5.104	0.000	1041.2	1566.99	391.11
5.104	4.871	1047.2	1575.52	384.69
5.104	7.355	1048.2	1578.16	383.04
5.104	10.119	1051.0	1582.06	380.14
5.104	15.055	1056.3	1589.34	374.77
5.104	15.405	1056.4	1590.08	374.38
5.104	20.360	1061.5	1597.83	368.99
5.104	25.360	1068.1	1604.75	363.53
5.104	35.587	1096.5	1619.99	347.51
7.580	0.000	1065.8	1591.03	370.64
7.580	2.579	1069.9	1596.47	366.69
7.580	2.794	1069.9	1596.80	366.55
7.580	5.190	1071.0	1599.10	365.13
7.580	7.489	1072.5	1601.59	363.46
7.580	10.178	1076.4	1606.71	359.87
7.580	12.750	1082.3	1613.07	355.07

A. Tablas de Propiedad.

Tabla A.58. Continuación.

% ₁	% ₂	ρ	u	\mathcal{K}_S
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
7.580	15.304	1089.3	1618.65	350.37
7.580	17.057	1094.	1622.62	347.15
7.580	19.608	1097.5	1627.32	344.05
7.580	22.786	1104.3	1635.44	338.54
7.580	25.580	1116.2	1649.44	329.28
7.580	28.363	1116.1	1653.14	327.83
7.580	30.964	1126.4	1663.76	320.70
10.249	0.000	1083.9	1610.23	355.80
10.249	0.888	1091.7	1618.81	349.53
10.249	2.218	1094.7	1622.30	347.09
10.249	2.931	1064.1	1625.83	355.51
298.15				
0.000	0.000	997.0	1496.89	447.62
0.000	100.00	1068.7	1536.06	396.55
2.526	0.000	1016.6	1518.21	426.72
2.526	2.697	1024.2	1529.84	417.17
2.526	4.864	1025.1	1533.18	415.00
2.526	7.833	1029.0	1541.52	408.93
2.526	10.037	1030.7	1546.03	405.90
2.526	12.579	1033.3	1551.53	401.99
2.526	14.410	1034.4	1555.65	399.45
2.526	16.834	1038.2	1562.72	394.41
2.526	20.124	1042.0	1571.02	388.81
2.526	22.606	1043.2	1575.77	386.04
2.526	26.671	1048.2	1586.34	379.10
2.526	34.247	1056.0	1604.00	368.04
2.526	35.380	1056.7	1606.39	366.71
2.526	36.844	1057.8	1609.35	364.97
2.526	40.793	1061.3	1618.17	359.82
5.019	2.669	1120.0	1630.54	335.81
5.019	5.194	1049.1	1558.34	392.51
5.019	10.088	1054.1	1569.51	385.11
5.019	12.758	1057.2	1576.30	380.67
5.019	17.584	1062.7	1587.70	373.26
5.019	18.535	1063.1	1588.95	372.54
5.019	22.915	1072.0	1594.17	367.03
5.019	24.892	1075.4	1594.31	365.83
5.019	27.311	1082.1	1612.17	355.54
5.019	29.939	1088.9	1621.03	349.47
5.019	30.660	1074.2	1617.47	355.82
5.104	0.000	1044.9	1546.85	399.96
5.104	4.871	1051.2	1559.53	391.13
5.104	7.355	1052.3	1564.23	388.36
5.104	10.119	1055.3	1570.47	384.19
5.104	15.055	1060.9	1581.57	376.81

Tabla A.58. Continuación.

% ₁	% ₂	ρ	u	K_S
		kg·m ⁻³	m·s ⁻¹	TPa ⁻¹
5.104	15.405	1061.0	1582.67	376.24
5.104	20.360	1066.5	1597.00	367.64
5.104	25.360	1073.1	1603.47	362.42
5.104	35.587	1102.6	1628.56	341.94
7.580	0.000	1069.7	1572.61	377.98
7.580	2.579	1074.1	1580.47	372.71
7.580	2.794	1074.0	1580.82	372.56
7.580	5.190	1075.3	1583.90	370.67
7.580	7.489	1077.0	1585.87	369.19
7.580	10.178	1080.8	1591.90	365.10
7.580	12.750	1086.4	1598.90	360.04
7.580	15.304	1093.9	1603.39	355.57
7.580	17.057	1098.5	1606.98	352.50
7.580	19.608	1102.2	1612.37	348.96
7.580	22.786	1108.8	1620.87	343.25
7.580	25.580	1121.0	1635.39	333.52
7.580	28.363	1122.3	1643.39	329.90
7.580	30.964	1132.3	1652.52	323.40
10.249	0.000	1088.1	1592.78	362.26
10.249	0.888	1096.1	1602.51	355.26
10.249	2.218	1099.0	1606.22	352.66
10.249	2.931	1072.4	1610.30	359.58
288.15				
0.000	0.000	999.1	1466.40	465.46
0.000	100.00	1076.7	1572.88	375.41
2.526	0.000	1019.1	1488.93	442.61
2.526	2.697	1026.9	1503.05	431.02
2.526	4.864	1027.9	1507.95	427.80
2.526	7.833	1032.2	1518.89	419.93
2.526	10.037	1034.0	1525.39	415.63
2.526	12.579	1036.8	1533.20	410.28
2.526	14.410	1038.0	1539.16	406.63
2.526	16.834	1042.0	1548.77	400.07
2.526	20.124	1046.1	1560.44	392.55
2.526	22.606	1047.5	1567.65	388.45
2.526	26.671	1042.7	1582.40	382.97
2.526	34.247	1061.1	1607.38	364.73
2.526	35.380	1062.0	1610.93	362.83
2.526	36.844	1063.3	1615.18	360.47
2.526	40.793	1067.1	1628.63	353.29
5.019	2.669	1124.0	1610.10	343.17
5.019	5.194	1052.4	1535.85	402.82
5.019	10.088	1057.7	1551.65	392.65
5.019	12.758	1061.1	1561.28	386.61
5.019	17.584	1067.0	1577.01	376.84

Tabla A.58. Continuación.

$\%_1$	$\%_2$	ρ	u	K_S
		$\text{kg}\cdot\text{m}^{-3}$	$\text{m}\cdot\text{s}^{-1}$	TPa^{-1}
5.019	18.535	1067.4	1579.31	375.58
5.019	22.915	1076.2	1581.49	371.48
5.019	24.892	1079.7	1575.63	373.04
5.019	27.311	1086.3	1626.89	347.78
5.019	29.939	1093.1	1635.77	341.88
5.019	30.660	1079.6	1631.97	347.78
5.104	0.000	1047.8	1519.58	413.29
5.104	4.871	1054.5	1536.92	401.46
5.104	7.355	1055.8	1543.84	397.37
5.104	10.119	1059.0	1552.71	391.66
5.104	15.055	1064.9	1568.39	381.72
5.104	15.405	1065.1	1569.92	380.92
5.104	20.360	1070.9	1595.50	366.81
5.104	25.360	1077.6	1610.48	357.78
5.104	35.587	1109.1	1644.47	333.41
7.580	0.000	1073.0	1547.45	389.18
7.580	2.579	1077.6	1558.10	382.25
7.580	2.794	1077.5	1558.54	382.05
7.580	5.190	1079.0	1562.79	379.44
7.580	7.489	1077.0	1585.87	369.19
7.580	10.178	1084.7	1571.21	373.42
7.580	12.750	1090.2	1578.52	368.09
7.580	15.304	1097.7	1582.56	363.72
7.580	17.057	1102.3	1585.76	360.75
7.580	19.608	1106.2	1591.67	356.81
7.580	22.786	1112.9	1600.28	350.86
7.580	25.580	1125.3	1615.61	340.43
7.580	28.363	1127.0	1633.61	332.46
7.580	30.964	1137.0	1645.01	325.00
10.249	0.000	1091.6	1569.36	371.94
10.249	0.888	1099.7	1580.46	364.02
10.249	2.218	1102.8	1584.28	361.25
10.249	2.931	1077.1	1588.58	367.89



Anexo B

Curva Binodal



B. Curva Binodal.

B. CURVA BINODAL..... 3

B. CURVA BINODAL

Tabla B.1. Curva binodal de la mezcla ternaria x_1 Etanol (1) – x_2 *n*-alcano (2) - x_3 agua (3) a T = 318.15 K.

<i>n</i> -hexano		<i>n</i> -heptano		<i>n</i> -octano		<i>n</i> -nonano	
x_1	x_2	x_1	x_2	x_1	x_2	x_1	x_2
0.0374	0.9593	0.0306	0.0007	0.0028	0.9961	0.0447	0.9545
0.1317	0.0077	0.0640	0.9227	0.0311	0.9680	0.0653	0.0114
0.1621	0.8292	0.1119	0.0003	0.0479	0.9518	0.0798	0.9200
0.2065	0.0014	0.1773	0.8038	0.0947	0.9038	0.1078	0.8920
0.2802	0.0014	0.2378	0.0023	0.1080	0.0013	0.1119	0.8879
0.3062	0.6751	0.3183	0.6437	0.1377	0.8620	0.2047	0.7945
0.4240	0.0473	0.3541	0.0112	0.1514	0.8478	0.2681	0.7316
0.4290	0.4105	0.3768	0.5490	0.1771	0.8220	0.3177	0.0015
0.4774	0.0761	0.4170	0.0702	0.1802	0.8190	0.3231	0.6764
0.4834	0.0856	0.5038	0.2578	0.1830	0.8145	0.3275	0.6724
0.5038	0.2384			0.1871	0.8119	0.3694	0.0044
0.5161	0.1060			0.1881	0.8116	0.5297	0.4701
0.0374	0.9593			0.1946	0.8041	0.6262	0.0044
0.1317	0.0077			0.2802	0.0011	0.6500	0.3378
0.1621	0.8292			0.2913	0.7063	0.6808	0.0015
0.2065	0.0014			0.3247	0.6741	0.7237	0.0082
0.2802	0.0014			0.3377	0.6616	0.7674	0.2147
				0.4339	0.0014	0.7853	0.0657
				0.4923	0.5037		
				0.5691	0.0612		
				0.6538	0.2877		
				0.6538	0.2877		
				0.6552	0.3223		
				0.6856	0.1013		
				0.7130	0.1809		
				0.8805	0.1068		

B. Curva Binodal.

Tabla B.2 Curva binodal de la mezcla ternaria %₁ sal (1) – %₂ Tween 20 (2) - %₃ agua (3) a T = 298.15 K

Na ₂ SO ₄		Na ₂ S ₂ O ₃		K ₂ HPO ₄		K ₃ PO ₄	
% w ₁	%w ₂	% w ₁	%w ₂	% w ₁	%w ₂	% w ₁	%w ₂
2.3157	42.4670	2.4451	57.2262	2.3803	45.6353	2.5007	45.6208
2.5400	39.1766	3.4513	51.1228	2.8768	43.2751	4.0215	37.5809
3.2310	35.6167	4.5046	43.5241	3.4699	41.7917	5.2400	30.1472
3.6970	33.0171	5.7474	36.8636	4.0082	38.7319	5.6084	27.2043
4.1244	30.0145	7.1402	31.4453	4.1732	37.9152	6.0742	25.2333
4.8960	25.6293	7.6837	29.3657	4.5832	34.8982	6.5607	21.8858
5.3104	22.1111	8.3508	26.2649	4.7211	33.7302	6.8288	20.4563
6.0375	19.7265	9.0022	22.5331	5.1900	32.5687	7.2407	18.4019
6.5969	16.8942	9.2843	21.0568	5.2893	31.6388	7.5538	16.4652
6.8217	15.4986	9.7192	18.9734	5.5302	30.0353	7.7343	14.7356
7.0941	13.3730	10.2174	16.7035	5.9695	27.8388	7.9848	13.3228
7.4822	10.6661	10.5234	14.9201	6.3792	27.2539	8.2221	12.0940
7.8432	8.5280	10.9018	12.7771	6.7596	26.2994	8.4279	10.3204
8.1068	6.7185	11.2629	10.9040	7.5713	23.0458	8.6186	9.4388
8.3052	5.3632	11.5079	9.2649	7.6638	19.5487	8.7770	8.3958
8.4470	3.9825	11.7015	7.8858	7.6885	21.3402	8.8776	7.3574
8.6106	3.2280	11.9870	6.5301	8.1121	18.3827	9.0266	6.3314
		12.1563	5.5783	8.3163	17.0487	9.1178	5.3285
		12.4104	4.1600	8.4288	15.7607	9.3279	4.2094
		12.6118	2.4931	8.6917	15.1015	9.3947	2.6206
				8.9322	13.7618		
				9.2852	11.9068		
				9.8641	8.6633		
				9.9980	7.6576		
				10.0145	6.6031		
				10.1231	5.1225		
				10.1999	5.7515		
				10.5370	4.2356		
				10.5805	3.6092		
				10.5972	2.8767		

Tabla B.3. Curva binodal de la mezcla ternaria %₁ sal (1) – %₂ Triton X-102 (2) - %₃ agua (3) a T = 298.15 K.

Na ₂ SO ₄		Na ₂ S ₂ O ₃		K ₂ HPO ₄		K ₃ PO ₄	
% w ₁	%w ₂	% w ₁	%w ₂	% w ₁	%w ₂	% w ₁	%w ₂
0.34	45.12	1.23	54.47	2.51	45.00	2.46	42.64
0.55	43.43	2.67	47.72	2.79	42.04	3.34	38.04
2.80	32.25	6.14	31.54	2.80	40.06	3.76	36.04
3.02	29.65	6.69	29.07	3.22	37.86	3.82	36.51
3.74	27.02	7.54	24.05	3.61	36.04	4.06	34.44
4.04	25.28	8.02	21.53	4.27	33.33	4.40	32.92
4.73	22.72	8.71	17.69	4.96	30.13	4.67	31.06
5.18	19.49	9.23	15.70	5.44	26.49	5.00	29.85
5.37	18.50	9.96	12.61	6.18	23.93	5.29	27.08
5.55	16.77	10.34	10.80	6.63	22.07	5.54	26.21
5.94	14.23	10.67	9.06	6.74	19.75	5.88	24.16
6.25	12.81	10.96	7.54	6.87	20.58	6.27	21.52
6.61	10.66	11.37	6.19	7.12	18.43	6.32	19.80
6.94	8.84	11.53	4.80	7.52	16.88	6.64	18.41
7.33	7.15	14.02	1.49	7.87	15.12	7.12	17.05
7.21	8.13	15.34	0.56	8.20	13.43	7.30	15.56
7.57	6.58	16.65	0.18	8.51	11.87	7.92	14.30
7.96	4.58			8.90	10.55	8.09	13.03
8.14	3.98			9.20	9.23	8.43	11.79
8.25	3.28			9.45	8.18	8.64	10.16
8.45	2.33			9.68	7.27	8.92	9.00
10.33	0.75			9.76	5.97	9.12	7.65
10.88	0.32			9.98	5.22	9.34	6.53
11.58	0.13			10.30	4.00	9.58	5.37
				10.52	2.98	9.76	4.36
				12.17	1.41	9.95	3.46
				13.10	0.65	13.27	0.38
				14.85	0.11	13.82	0.22
						15.98	0.01



Anexo C

Rectas de Reparto



C. Rectas de Reparto.

C. RECTAS DE REPARTO	3
C.1 Bibliografía	5

C. RECTAS DE REPARTO

Tabla C.1. Rectas de reparto de la mezcla ternaria %₁ Na₂SO₄ (1) – %₂ Tween 20 (2) - %₃ agua (3) a T = 298.15 K

Tween 20 fase rica		Na ₂ SO ₄ fase rica		Rectas de reparto	S
w_1^I	w_1^{II}	w_2^I	w_2^{II}		
36.09	3.56	3.23	9.20	33.06	-5.44
48.80	0.20	0.91	12.18	49.88	-4.31
54.27	0.05	0.30	13.13	55.71	-4.22

Tabla C.2 Rectas de reparto de la mezcla ternaria %₁ Na₂S₂O₃ (1) – %₂ Tween 20 (2) - %₃ agua (3) a T = 298.15 K

Tween 20 fase rica		Na ₂ S ₂ O ₃ fase rica		Rectas de reparto	S
w_1^I	w_1^{II}	w_2^I	w_2^{II}		
40.70	2.19	5.50	14.53	41.51	-3.86
53.58	0.07	2.88	19.08	55.92	-3.30
59.92	0.00	1.65	20.96	62.95	-3.10

Tabla C.3. Rectas de reparto de la mezcla ternaria %₁ K₂HPO₄ (1) – %₂ Tween 20 (2) - %₃ agua (3) a T = 298.15 K

Tween 20 fase rica		K ₂ HPO ₄ fase rica		Rectas de reparto	S
w_1^I	w_1^{II}	w_2^I	w_2^{II}		
51.60	0.02	1.08	17.13	54.01	-3.21
39.71	0.51	3.44	14.16	40.64	-3.65
50.31	0.29	1.29	14.78	51.80	-3.70

C. Rectas de Reparto.

Tabla C.4. Rectas de reparto de la mezcla ternaria %₁ K₃PO₄ (1) – %₂ Tween 20 (2) - %₃ agua (3) a T = 298.15 K

Tween 20 fase rica		K ₃ PO ₄ fase rica		Rectas de reparto	S
w_1^I	w_1^{II}	w_2^I	w_2^{II}		
43.93	0.01	2.78	15.01	45.59	-3.59
47.40	0.00	1.69	17.03	49.82	-3.09
40.32	2.61	3.63	19.92	43.49	-2.47

Tabla C.5. Rectas de reparto de la mezcla ternaria %₁ Na₂SO₄ (1) – %₂ Triton X-102 (2) - %₃ agua (3) a T = 298.15 K¹

Triton X-102 fase rica		Na ₂ SO ₄ fase rica		Rectas de reparto	S
w_1^I	w_1^{II}	w_2^I	w_2^{II}		
43.43	0.55	0.32	10.58	44.33	-4.17
32.25	2.80	0.75	10.13	32.34	-4.30
45.12	0.34	0.13	11.58	46.38	-4.00

Tabla C.6. Rectas de reparto de la mezcla ternaria %₁ Na₂S₂O₃ (1) – %₂ Triton X-102 (2) - %₃ agua (3) a T = 298.15 K¹

Triton X-102 fase rica		Na ₂ S ₂ O ₃ fase rica		Rectas de reparto	S
w_1^I	w_1^{II}	w_2^I	w_2^{II}		
47.72	2.67	0.56	15.34	48.84	-3.72
31.54	6.14	1.49	14.02	31.07	-3.81
54.47	1.23	0.18	16.65	56.44	-3.52

¹ Ulloa, G., Coutens, C., Sánchez, M., Sineiro, J., Rodríguez, A., Deive, F.J., Núñez, M.J. (2012b) Sodium salt effect on aqueous solutions containing Tween 20 and Triton X-102. J. Chem. Thermodyn., 47, 62-67.

Tabla C.7. Rectas de reparto de la mezcla ternaria %₁ K₂HPO₄ (1) – %₂ Triton X-102 (2) - %₃ agua (3) a T = 298.15 K²

Triton X-102 fase rica		K ₂ HPO ₄ fase rica		Rectas de reparto	S
w_1^I	w_1^{II}	w_2^I	w_2^{II}		
40.06	2.80	1.41	12.17	39.77	-4.13
42.04	2.80	0.65	13.10	42.66	-4.02
45.00	2.51	0.11	14.85	46.56	-3.64

Tabla C.8. Rectas de reparto de la mezcla ternaria %₁ K₃PO₄ (1) – %₂ Triton X-102 (2) - %₃ agua (3) a T = 298.15 K²

Triton X-102 fase rica		K ₃ PO ₄ fase rica		Rectas de reparto	S
w_1^I	w_1^{II}	w_2^I	w_2^{II}		
31.06	4.67	0.22	15.98	32.85	-2.73
37.00	3.68	0.02	13.82	38.34	-3.65
42.88	2.37	0.38	13.27	43.87	-3.90

C.1 Bibliografía

- Álvarez, M.S., Moscoso, F., Rodríguez, A., Sanromán, M.A., Deive, F.J. (2012b) Triton X surfactants to form aqueous biphasic systems: Experiment and correlation., J. Chem. Thermodyn. 54, 385-392.
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² Álvarez, M.S., Moscoso, F., Rodríguez, A., Sanromán, M.A., Deive, F.J. (2012b) Triton X surfactants to form aqueous biphasic systems: Experiment and correlation. The Journal of Chemical Thermodynamics 54, 385-392.



Anexo D

Magnitudes

Derivadas



D. Magnitudes Derivadas.

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D. MAGNITUDES DERIVADAS

Tabla D.1. Magnitudes derivadas de los valores experimentales de Etanol, *n*-hexano, *n*-heptano, *n*-octano, *n*-nonano y agua a 288.15 K

288.15 K	L_f	$b \cdot 10^6$	r	$B \cdot 10^6$	$Y \cdot 10^{-6}$	$Va \cdot 10^6$	$R \cdot 10^3$	S	R_A	M_A	$Z \cdot 10^{-3}$
	(Å)	(m^3)	(nm)	($m^3 \cdot mol^{-1}$)	(m^2)	($m^3 \cdot mol^{-1}$)	($m^3 \cdot mol^{-1} \cdot (m \cdot s^{-1})$)				($kg \cdot m^2 \cdot s^{-1}$)
Etanol	0.608	51.509	0.172	12.877	12.877	15.288	0.612	3.32	1.00	0	936.002
<i>n</i> -hexano	0.701	118.677	0.227	29.669	29.669	39.094	1.348	3.06	0.85	0	742.149
<i>n</i> -heptano	0.657	134.563	0.237	33.641	33.641	38.935	1.536	3.17	0.87	0	806.484
<i>n</i> -octano	0.627	150.468	0.246	37.617	0.459	39.296	1.723	3.25	0.88	0	855.874
<i>n</i> -nonano	0.604	166.460	0.255	41.615	0.490	39.387	1.912	3.32	0.89	0	898.780
Agua	0.436	15.438	0.115	3.859	0.100	1.505	0.205	4.28	1.16	0	1465.084

D. Magnitudes Derivadas.

Tabla D.2. Magnitudes derivadas de los valores experimentales de Etanol, *n*-hexano, *n*-heptano, *n*-octano, *n*-nonano y agua a 290.65 K.

290.65 K	L_f	$b \cdot 10^6$	r	$B \cdot 10^6$	$\Upsilon \cdot 10^{-6}$	$V_a \cdot 10^6$	$R \cdot 10^3$	S	R_A	M_A	$Z \cdot 10^{-3}$
	(Å)	(m^3)	(nm)	($m^3 \cdot mol^{-1}$)	(m^2)	($m^3 \cdot mol^{-1}$)	($m^3 \cdot mol^{-1} \cdot m \cdot s^{-1}$)				($kg \cdot m^2 \cdot s^{-1}$)
Etanol	0.616	51.569	0.172	12.892	12.892	15.658	0.613	3.30	1.00	0	926.307
<i>n</i> -hexano	0.713	118.896	0.228	29.724	29.724	40.225	1.347	3.03	0.85	0	731.564
<i>n</i> -heptano	0.667	134.813	0.237	33.703	33.703	40.057	1.536	3.15	0.87	0	796.524
<i>n</i> -octano	0.637	150.746	0.246	37.686	0.459	40.522	1.722	3.23	0.88	0	845.688
<i>n</i> -nonano	0.612	166.752	0.255	41.688	0.491	40.660	1.912	3.29	0.89	0	888.869
Agua	0.435	15.448	0.115	3.862	0.101	1.412	0.205	4.30	1.16	0	1472.743

Tabla D.3. Magnitudes derivadas de los valores experimentales de Etanol, *n*-hexano, *n*-heptano, *n*-octano, *n*-nonano y agua a 293.15 K.

293.15 K	L_f	$b \cdot 10^6$	r	$B \cdot 10^6$	$\Upsilon \cdot 10^{-6}$	$V_a \cdot 10^6$	$R \cdot 10^3$	S	R_A	M_A	$Z \cdot 10^{-3}$
	(Å)	(m ³)	(nm)	(m ³ ·mol ⁻¹)	(m ²)	(m ³ ·mol ⁻¹)	(m ³ ·mol ⁻¹)·(m·s ⁻¹)				(kg·m ² ·s ⁻¹)
Etanol	0.625	51.631	0.172	12.908	12.908	16.021	0.613	3.28	1.00	0	916.856
<i>n</i> -hexano	0.726	119.116	0.228	29.779	29.779	41.416	1.347	3.00	0.85	0	720.582
<i>n</i> -heptano	0.678	135.071	0.237	33.768	33.768	41.197	1.535	3.12	0.87	0	786.484
<i>n</i> -octano	0.646	151.025	0.246	37.756	0.460	41.725	1.722	3.20	0.88	0	835.757
<i>n</i> -nonano	0.621	167.056	0.255	41.764	0.492	41.954	1.911	3.27	0.89	0	878.852
Agua	0.435	15.458	0.115	3.864	0.101	1.325	0.206	4.32	1.16	0	1479.863

D. Magnitudes Derivadas.

Tabla D.4. Magnitudes derivadas de los valores experimentales de Etanol, *n*-hexano, *n*-heptano, *n*-octano, *n*-nonano y agua a 295.65 K.

295.65 K	L_f	$b \cdot 10^6$	r	$B \cdot 10^6$	$\gamma \cdot 10^{-6}$	$V_a \cdot 10^6$	$R \cdot 10^3$	S	R_A	M_A	$Z \cdot 10^{-3}$
	(Å)	(m ³)	(nm)	(m ³ ·mol ⁻¹)	(m ²)	(m ³ ·mol ⁻¹)	(m ³ ·mol ⁻¹)·(m·s ⁻¹)				(kg·m ² ·s ⁻¹)
Etanol	0.633	51.691	0.172	12.923	12.923	16.382	0.613	3.26	1.00	0	907.534
<i>n</i> -hexano	0.739	119.348	0.228	29.837	29.837	42.517	1.346	2.97	0.85	0	710.437
<i>n</i> -heptano	0.688	135.326	0.238	33.832	33.832	42.334	1.535	3.09	0.87	0	776.570
<i>n</i> -octano	0.656	151.305	0.247	37.826	0.460	42.925	1.722	3.17	0.88	0	825.939
<i>n</i> -nonano	0.630	167.360	0.255	41.840	0.492	43.221	1.911	3.24	0.89	0	869.103
Agua	0.435	15.468	0.115	3.867	0.101	1.242	0.206	4.34	1.16	0	1486.431

Tabla D.5. Magnitudes derivadas de los valores experimentales de Etanol, *n*-hexano, *n*-heptano, *n*-octano, *n*-nonano y agua a 298.15 K.

298.15 K	L_f	$b \cdot 10^6$	r	$B \cdot 10^6$	$\Upsilon \cdot 10^{-6}$	$V_a \cdot 10^6$	$R \cdot 10^3$	S	R_A	M_A	$Z \cdot 10^{-3}$
	(Å)	(m^3)	(nm)	($m^3 \cdot mol^{-1}$)	(m^2)	($m^3 \cdot mol^{-1}$)	($m^3 \cdot mol^{-1} \cdot (m \cdot s^{-1})$)				($kg \cdot m^2 \cdot s^{-1}$)
Etanol	0.642	51.752	0.172	12.938	12.938	16.739	0.613	3.24	1.00	0	898.363
<i>n</i> -hexano	0.751	119.580	0.228	29.895	29.895	43.618	1.346	2.94	0.85	0	700.398
<i>n</i> -heptano	0.699	135.585	0.238	33.896	33.896	43.461	1.535	3.07	0.87	0	766.827
<i>n</i> -octano	0.666	151.587	0.247	37.897	0.461	44.122	1.722	3.15	0.88	0	816.221
<i>n</i> -nonano	0.639	167.663	0.255	41.916	0.493	44.495	1.911	3.22	0.89	0	859.394
Agua	0.435	15.479	0.115	3.870	0.101	1.164	0.207	4.36	1.16	0	1492.459

D. Magnitudes Derivadas.

Tabla D.6. Magnitudes derivadas de los valores experimentales de Etanol, *n*-hexano, *n*-heptano, *n*-octano, *n*-nonano y agua a 300.65 K.

300.65 K	L_f	$b \cdot 10^6$	r	$B \cdot 10^6$	$\Upsilon \cdot 10^{-6}$	$V_a \cdot 10^6$	$R \cdot 10^3$	S	R_A	M_A	$Z \cdot 10^{-3}$
	(Å)	(m ³)	(nm)	(m ³ ·mol ⁻¹)	(m ²)	(m ³ ·mol ⁻¹)	(m ³ ·mol ⁻¹)·(m·s ⁻¹)				(kg·m ² ·s ⁻¹)
Etanol	0.650	51.814	0.173	12.954	12.954	17.097	0.613	3.22	1.00	0	889.235
<i>n</i> -hexano	0.764	119.817	0.228	29.954	29.954	44.712	1.346	2.92	0.85	0	690.521
<i>n</i> -heptano	0.710	135.846	0.238	33.961	33.961	44.596	1.535	3.04	0.87	0	757.107
<i>n</i> -octano	0.676	151.869	0.247	37.967	0.461	45.315	1.722	3.13	0.88	0	806.616
<i>n</i> -nonano	0.649	167.972	0.255	41.993	0.493	45.755	1.911	3.20	0.89	0	849.843
Agua	0.435	15.490	0.115	3.872	0.101	1.091	0.207	4.38	1.15	0	1497.948

Tabla D.7. Magnitudes derivadas de los valores experimentales de Etanol, *n*-hexano, *n*-heptano, *n*-octano, *n*-nonano y agua a 303.15 K.

303.15 K	L_f	$b \cdot 10^6$	r	$B \cdot 10^6$	$\Upsilon \cdot 10^{-6}$	$V_a \cdot 10^6$	$R \cdot 10^3$	S	R_A	M_A	$Z \cdot 10^{-3}$
	(Å)	(m ³)	(nm)	(m ³ ·mol ⁻¹)	(m ²)	(m ³ ·mol ⁻¹)	(m ³ ·mol ⁻¹)·(m·s ⁻¹)				(kg·m ² ·s ⁻¹)
Etanol	0.659	51.875	0.173	12.969	12.969	17.453	0.613	3.20	1.00	0	880.253
<i>n</i> -hexano	0.777	120.051	0.228	30.013	30.013	45.804	1.346	2.89	0.85	0	680.772
<i>n</i> -heptano	0.721	136.105	0.238	34.026	34.026	45.719	1.535	3.02	0.87	0	747.579
<i>n</i> -octano	0.686	152.148	0.247	38.037	0.462	46.505	1.722	3.10	0.88	0	797.134
<i>n</i> -nonano	0.658	168.279	0.255	42.070	0.494	47.009	1.911	3.17	0.89	0	840.415
Agua	0.436	15.500	0.115	3.875	0.101	1.023	0.207	4.40	1.15	0	1502.912

D. Magnitudes Derivadas.

Tabla D.8. Magnitudes derivadas de los valores experimentales de Etanol, *n*-hexano, *n*-heptano, *n*-octano, *n*-nonano y agua a 305.65 K.

305.65 K	L_f	$b \cdot 10^6$	r	$B \cdot 10^6$	$\Upsilon \cdot 10^{-6}$	$V_a \cdot 10^6$	$R \cdot 10^3$	S	R_A	M_A	$Z \cdot 10^{-3}$
	(Å)	(m ³)	(nm)	(m ³ ·mol ⁻¹)	(m ²)	(m ³ ·mol ⁻¹)	(m ³ ·mol ⁻¹)·(m·s ⁻¹)				(kg·m ² ·s ⁻¹)
Etanol	0.668	51.938	0.173	12.984	12.984	17.815	0.613	3.18	1.00	0	871.188
<i>n</i> -hexano	0.791	120.290	0.228	30.073	30.073	46.916	1.346	2.86	0.85	0	670.958
<i>n</i> -heptano	0.733	136.371	0.238	34.093	34.093	46.861	1.535	2.99	0.87	0	737.985
<i>n</i> -octano	0.697	152.436	0.247	38.109	0.462	47.704	1.721	3.08	0.88	0	787.647
<i>n</i> -nonano	0.668	168.593	0.256	42.148	0.495	48.273	1.911	3.15	0.89	0	830.991
Agua	0.436	15.512	0.115	3.878	0.101	0.960	0.208	4.42	1.15	0	1507.321

Tabla D.9. Magnitudes derivadas de los valores experimentales de Etanol, *n*-hexano, *n*-heptano, *n*-octano, *n*-nonano y agua a 308.15 K.

308.15 K	L_f	$b \cdot 10^6$	r	$B \cdot 10^6$	$\Upsilon \cdot 10^{-6}$	$V_a \cdot 10^6$	$R \cdot 10^3$	S	R_A	M_A	$Z \cdot 10^{-3}$
	(Å)	(m ³)	(nm)	(m ³ ·mol ⁻¹)	(m ²)	(m ³ ·mol ⁻¹)	(m ³ ·mol ⁻¹)·(m·s ⁻¹)				(kg·m ² ·s ⁻¹)
Etanol	0.677	51.998	0.173	13.000	13.000	18.174	0.614	3.16	1.00	0	862.271
<i>n</i> -hexano	0.804	120.524	0.229	30.131	30.131	48.008	1.346	2.84	0.85	0	661.431
<i>n</i> -heptano	0.745	136.629	0.238	34.157	34.157	48.009	1.535	2.97	0.87	0	728.470
<i>n</i> -octano	0.707	152.713	0.247	38.178	0.463	48.908	1.721	3.05	0.88	0	778.248
<i>n</i> -nonano	0.677	168.896	0.256	42.224	0.495	49.541	1.910	3.12	0.89	0	821.653
Agua	0.437	15.523	0.115	3.881	0.101	0.903	0.208	4.43	1.15	0	1511.220

D. Magnitudes Derivadas.

Tabla D.10. Magnitudes derivadas de los valores experimentales de Etanol, *n*-hexano, *n*-heptano, *n*-octano, *n*-nonano y agua a 310.65 K.

310.65 K	L_f	$b \cdot 10^6$	r	$B \cdot 10^6$	$\Upsilon \cdot 10^{-6}$	$Va \cdot 10^6$	$R \cdot 10^3$	S	R_A	M_A	$Z \cdot 10^{-3}$
	(Å)	(m^3)	(nm)	($m^3 \cdot mol^{-1}$)	(m^2)	($m^3 \cdot mol^{-1}$)	($m^3 \cdot mol^{-1} \cdot (m \cdot s^{-1})$)				($kg \cdot m^2 \cdot s^{-1}$)
Etanol	0.686	52.060	0.173	13.015	13.015	18.538	0.614	3.14	1.00	0	853.330
<i>n</i> -hexano	0.819	120.759	0.229	30.190	30.190	49.135	1.346	2.81	0.85	0	651.721
<i>n</i> -heptano	0.757	136.888	0.238	34.222	34.222	49.155	1.535	2.94	0.87	0	719.057
<i>n</i> -octano	0.718	152.995	0.247	38.249	0.464	50.131	1.721	3.03	0.88	0	768.788
<i>n</i> -nonano	0.687	169.206	0.256	42.302	0.496	50.818	1.910	3.10	0.89	0	812.319
Agua	0.438	15.534	0.115	3.884	0.101	0.850	0.209	4.45	1.15	0	1514.595

Tabla D.11. Magnitudes derivadas de los valores experimentales de Etanol, *n*-hexano, *n*-heptano, *n*-octano, *n*-nonano y agua a 313.15 K.

313.15 K	L_f	$b \cdot 10^6$	r	$B \cdot 10^6$	$\Upsilon \cdot 10^{-6}$	$V_a \cdot 10^6$	$R \cdot 10^3$	S	R_A	M_A	$Z \cdot 10^{-3}$
	(Å)	(m^3)	(nm)	($m^3 \cdot mol^{-1}$)	(m^2)	($m^3 \cdot mol^{-1}$)	($m^3 \cdot mol^{-1} \cdot (m \cdot s^{-1})$)				($kg \cdot m^2 \cdot s^{-1}$)
Etanol	0.696	52.122	0.173	13.030	13.030	18.900	0.614	3.12	1.00	0	844.493
<i>n</i> -hexano	0.833	120.992	0.229	30.248	30.248	50.281	1.345	2.78	0.85	0	641.990
<i>n</i> -heptano	0.769	137.151	0.239	34.288	34.288	50.320	1.534	2.92	0.87	0	709.590
<i>n</i> -octano	0.729	153.277	0.248	38.319	0.464	51.351	1.721	3.00	0.88	0	759.439
<i>n</i> -nonano	0.697	169.515	0.256	42.379	0.496	52.078	1.910	3.08	0.89	0	803.176
Agua	0.439	15.546	0.115	3.887	0.101	0.802	0.209	4.46	1.14	0	1517.430

D. Magnitudes Derivadas.

Tabla D.12. Magnitudes derivadas de los valores experimentales de Etanol, *n*-hexano, *n*-heptano, *n*-octano, *n*-nonano y agua a 315.65 K.

315.65 K	L_f	$b \cdot 10^6$	r	$B \cdot 10^6$	$Y \cdot 10^{-6}$	$Va \cdot 10^6$	$R \cdot 10^3$	S	R_A	M_A	$Z \cdot 10^{-3}$
	(Å)	(m ³)	(nm)	(m ³ ·mol ⁻¹)	(m ²)	(m ³ ·mol ⁻¹)	(m ³ ·mol ⁻¹)·(m·s ⁻¹)				(kg·m ² ·s ⁻¹)
Etanol	0.702	52.214	0.173	13.053	13.053	19.268	0.614	3.10	1.00	0	835.594
<i>n</i> -hexano	0.844	121.283	0.229	30.321	30.321	51.419	1.345	2.76	0.85	0	632.420
<i>n</i> -heptano	0.778	137.467	0.239	34.367	34.367	51.474	1.534	2.89	0.87	0	700.303
<i>n</i> -octano	0.727	153.776	0.248	38.444	0.465	52.591	1.721	2.97	0.89	0	750.031
<i>n</i> -nonano	0.695	170.041	0.256	42.510	0.497	53.360	1.910	3.05	0.89	0	793.968
Agua	0.432	15.599	0.116	3.900	0.101	0.759	0.210	4.46	1.14	0	1519.773

Tabla D.13. Magnitudes derivadas de los valores experimentales de Etanol, *n*-hexano, *n*-heptano, *n*-octano, *n*-nonano y agua a 318.15 K.

318.15 K	L_f	$b \cdot 10^6$	r	$B \cdot 10^6$	$\gamma \cdot 10^{-6}$	$V_a \cdot 10^6$	$R \cdot 10^3$	S	R_A	M_A	$Z \cdot 10^{-3}$
	(Å)	(m ³)	(nm)	(m ³ ·mol ⁻¹)	(m ²)	(m ³ ·mol ⁻¹)	(m ³ ·mol ⁻¹)·(m·s ⁻¹)				(kg·m ² ·s ⁻¹)
Etanol	0.714	52.241	0.173	13.060	13.060	19.952	0.613	3.06	1.00	0	820.352
<i>n</i> -hexano	0.855	121.560	0.229	30.390	30.390	52.542	1.345	2.73	0.85	0	623.109
<i>n</i> -heptano	0.787	137.769	0.239	34.442	34.442	52.659	1.534	2.86	0.87	0	690.914
<i>n</i> -octano	0.739	154.042	0.248	38.510	0.466	53.832	1.720	2.95	0.88	0	740.764
<i>n</i> -nonano	0.705	170.333	0.257	42.583	0.498	54.653	1.910	3.03	0.89	0	784.831
Agua	0.433	15.611	0.116	3.903	0.101	0.720	0.210	4.47	1.14	0	1521.578

D. Magnitudes Derivadas.

Tabla D.14. Magnitudes derivadas de los valores experimentales de Etanol, *n*-hexano, *n*-heptano, *n*-octano, *n*-nonano y agua a 320.65 K.

320.65 K	L_f	$b \cdot 10^6$	r	$B \cdot 10^6$	$\Upsilon \cdot 10^{-6}$	$Va \cdot 10^6$	$R \cdot 10^3$	S	R_A	M_A	$Z \cdot 10^{-3}$
	(Å)	(m^3)	(nm)	($m^3 \cdot mol^{-1}$)	(m^2)	($m^3 \cdot mol^{-1}$)	($m^3 \cdot mol^{-1} \cdot (m \cdot s^{-1})$)				($kg \cdot m^2 \cdot s^{-1}$)
Etanol	0.710	52.456	0.173	13.114	13.114	19.695	0.616	3.08	1.00	0	824.355
<i>n</i> -hexano	0.867	121.858	0.229	30.464	30.464	53.701	1.345	2.70	0.86	0	613.596
<i>n</i> -heptano	0.797	138.092	0.239	34.523	34.523	53.882	1.534	2.84	0.87	0	681.316
<i>n</i> -octano	0.750	154.332	0.248	38.583	0.466	55.100	1.720	2.92	0.89	0	731.340
<i>n</i> -nonano	0.716	170.657	0.257	42.664	0.499	55.940	1.910	3.00	0.89	0	775.726
Agua	0.434	15.622	0.116	3.905	0.101	0.687	0.210	4.48	1.14	0	1522.893

Tabla D.15. Magnitudes derivadas de los valores experimentales de Etanol, *n*-hexano, *n*-heptano, *n*-octano, *n*-nonano y agua a 323.15 K.

323.15 K	L_f	$b \cdot 10^6$	r	$B \cdot 10^6$	$\gamma \cdot 10^{-6}$	$V_a \cdot 10^6$	$R \cdot 10^3$	S	R_A	M_A	$Z \cdot 10^{-3}$
	(Å)	(m^3)	(nm)	($m^3 \cdot mol^{-1}$)	(m^2)	($m^3 \cdot mol^{-1}$)	($m^3 \cdot mol^{-1} \cdot (m \cdot s^{-1})$)				($kg \cdot m^2 \cdot s^{-1}$)
Etanol	0.722	52.482	0.173	13.120	13.120	20.396	0.615	3.04	1.00	0	808.944
<i>n</i> -hexano	0.878	122.146	0.230	30.536	30.536	54.819	1.345	2.67	0.85	0	604.529
<i>n</i> -heptano	0.806	138.380	0.239	34.595	34.595	55.068	1.533	2.81	0.87	0	672.148
<i>n</i> -octano	0.762	154.599	0.248	38.650	0.467	56.390	1.719	2.89	0.88	0	721.911
<i>n</i> -nonano	0.726	170.947	0.257	42.737	0.499	57.260	1.909	2.98	0.89	0	766.584
Agua	0.436	15.633	0.116	3.908	0.101	0.659	0.211	4.49	1.14	0	1523.686



Anexo E

Parámetros de ajuste de

ATPs con Tween 20



E. Parámetros de ajuste de ATPs con Tween 20.

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E. PARÁMETROS DE AJUSTE DE ATPS CON TWEEN 20.

E.1 Tween 20 – Na₂S₂O₃ - agua.

Tabla E.1. Parámetros de ajuste de la ecuación polinómica¹ (5.3) y las desviaciones cuadráticas medias (σ) del índice de refracción del sistema Tween 20 - Na₂S₂O₃ – agua

1.93 % Na ₂ S ₂ O ₃ n _D					
T (K)	A ₀	A ₁	A ₂	A ₃	σ
288.15	1.3335	0.1680	0.1470	0.0000	1.31·10 ⁻⁵
298.15	1.3326	0.1479	0.1446	0.0000	7.15·10 ⁻⁶
308.15	1.3312	0.1458	0.1417	0.0000	5.08·10 ⁻⁶
318.15	1.3298	0.1559	0.1354	0.0000	4.22·10 ⁻⁶
4.86 % Na ₂ S ₂ O ₃ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1550	0.1310	0.0000	1.22·10 ⁻⁵
298.15	1.3326	0.1899	0.1368	0.0000	1.49·10 ⁻⁶
308.15	1.3312	0.2268	0.1442	0.0000	2.35·10 ⁻⁶
318.15	1.3298	0.3326	0.1359	0.0000	2.36·10 ⁻⁵
7.00 % Na ₂ S ₂ O ₃ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1687	1.7545·10 ⁻³	0.0000	3.90·10 ⁻⁵
298.15	1.3326	0.1652	1.7046·10 ⁻³	0.0000	3.33·10 ⁻⁵
308.15	1.3312	0.1762	1.6225·10 ⁻³	0.0000	2.93·10 ⁻⁵
318.15	1.3298	0.1716	1.6367·10 ⁻³	0.0000	3.14·10 ⁻⁵
9.88 % Na ₂ S ₂ O ₃ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.2095	0.1417	0.0000	4.72·10 ⁻⁷
298.15	1.3326	0.2052	0.1389	0.0000	5.29·10 ⁻⁷
308.15	1.3312	0.2052	0.1352	0.0000	2.92·10 ⁻⁷
318.15	1.3298	0.2043	0.1345	0.0000	4.47·10 ⁻⁷
12.00 % Na ₂ S ₂ O ₃ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1990	0.2132	0.0000	9.72·10 ⁻⁷
298.15	1.3326	0.1947	0.2073	0.0000	8.16·10 ⁻⁷
308.15	1.3312	0.1919	0.2209	0.0000	5.16·10 ⁻⁷
318.15	1.3298	0.1876	0.2222	0.0000	5.24·10 ⁻⁷

¹ Govindarajan, r., Divya, K., Perumalsamy, M., (2013), Phase Behavior and Density for Binary and Ternary Solutions of PEG 4000 + Triammonium Citrate + Water Aqueous Two Phase Systems at Different Temperatures, J. Chem. Eng. Data 58, 315-321.

E. Parámetros de ajuste de ATPs con Tween 20.

Tabla E.2 Parámetros de ajuste de la ecuación polinómica² (5.5) y las desviaciones cuadráticas medias (σ) de la densidad del sistema Tween 20 - Na₂S₂O₃ – agua

1.93 % Na ₂ S ₂ O ₃ ρ						
T (K)	ρ_0	A ₁	A ₂	A ₃	σ	
288.15	0.9906	0.9870	-0.1700	-3.1777	5.29·10 ⁻²	
298.15	1.0052	0.2169	-0.2122	0.1573	1.32·10 ⁻⁴	
308.15	1.0020	0.2101	-0.2186	0.1687	1.27·10 ⁻⁴	
318.15	0.9981	0.2060	-0.2389	0.1831	1.22·10 ⁻⁴	
4.86 % Na ₂ S ₂ O ₃ ρ						
T (K)	ρ_0	A ₁	A ₂	A ₃	σ	
288.15	1.0261	0.4484	-1.8176	3.1993	1.09·10 ⁻³	
298.15	1.0052	0.2169	-0.2122	0.1573	1.04·10 ⁻³	
308.15	1.0234	0.4651	-2.2410	4.3300	1.27·10 ⁻⁴	
318.15	1.0158	0.4090	-1.6855	2.9490	9.87·10 ⁻⁴	
7.00 % Na ₂ S ₂ O ₃ ρ						
T (K)	ρ_0	A ₁	A ₂	A ₃	σ	
288.15	0.9991	0.9831	1.7588	-0.4462	1.37·10 ⁻³	
298.15	0.9970	0.9782	1.6889	-1.4441	1.20·10 ⁻³	
308.15	0.9940	0.9868	1.5693	-3.1533	1.10·10 ⁻³	
318.15	0.9902	0.9632	1.4738	-4.5177	1.02·10 ⁻³	
9.88 % Na ₂ S ₂ O ₃ ρ						
T (K)	ρ_0	A ₁	A ₂	A ₃	σ	
288.15	0.9991	0.8762	0.7467	-9.6851	1.08·10 ⁻⁴	
298.15	0.9970	0.8680	0.6642	-10.5205	9.74·10 ⁻⁵	
308.15	0.9940	0.8933	0.9198	-7.9328	1.08·10 ⁻⁴	
318.15	0.9902	0.9195	1.1848	-5.2506	1.20·10 ⁻⁴	
12.00 % Na ₂ S ₂ O ₃ ρ						
T (K)	ρ_0	A ₁	A ₂	A ₃	σ	
288.15	0.9991	0.8609	0.8408	-6.6598	8.89·10 ⁻⁶	
298.15	0.9970	0.8555	0.7962	-7.0315	7.45·10 ⁻⁶	
308.15	0.9940	0.8513	0.7607	-7.3272	6.74·10 ⁻⁶	
318.15	0.9902	0.8480	0.7336	-7.5533	6.20·10 ⁻⁶	

² Saravanan, S., Reena, J.A., Rao, J.R., Murugesan, T., Nair, B.U.,(2006), Phase Equilibrium compositions, Densities, and Viscosities of Aqueous Two-Phase Poly(ethylene glycol) + Poly(acrylic acid) System at Various Temperatures, J. Chem. Eng. Data, 51 1246-1249.

Tabla E.3. Parámetros de ajuste de la ecuación polinómica³ (5.6) y las desviaciones cuadráticas medias (σ) del índice de refracción del sistema Tween 20 - Na₂S₂O₃ – agua.

1.93 % Na ₂ S ₂ O ₃ n_D					
T (K)	A ₀	A ₁	A ₂	A ₃	σ
288.15	1.3335	0.1680	0.1470	0.0000	1.31·10 ⁻⁵
298.15	1.3326	0.1479	0.1446	0.0000	7.15·10 ⁻⁶
308.15	1.3312	0.1458	0.1417	0.0000	5.08·10 ⁻⁶
318.15	1.3298	0.1559	0.1354	0.0000	4.22·10 ⁻⁶
4.86 % Na ₂ S ₂ O ₃ n_D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1550	0.1310	0.0000	1.22·10 ⁻⁵
298.15	1.3326	0.1899	0.1368	0.0000	1.49·10 ⁻⁶
308.15	1.3312	0.2268	0.1442	0.0000	2.35·10 ⁻⁶
318.15	1.3298	0.3326	0.1359	0.0000	2.36·10 ⁻⁵
7.00 % Na ₂ S ₂ O ₃ n_D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1687	1.7545·10 ⁻³	0.0000	3.90·10 ⁻⁵
298.15	1.3326	0.1652	1.7046·10 ⁻³	0.0000	3.33·10 ⁻⁵
308.15	1.3312	0.1762	1.6225·10 ⁻³	0.0000	2.93·10 ⁻⁵
318.15	1.3298	0.1716	1.6367·10 ⁻³	0.0000	3.14·10 ⁻⁵
9.88 % Na ₂ S ₂ O ₃ n_D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.2095	0.1417	0.0000	4.72·10 ⁻⁷
298.15	1.3326	0.2052	0.1389	0.0000	5.29·10 ⁻⁷
308.15	1.3312	0.2052	0.1352	0.0000	2.92·10 ⁻⁷
318.15	1.3298	0.2043	0.1345	0.0000	4.47·10 ⁻⁷
12.00 % Na ₂ S ₂ O ₃ n_D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1990	0.2132	0.0000	9.72·10 ⁻⁷
298.15	1.3326	0.1947	0.2073	0.0000	8.16·10 ⁻⁷
308.15	1.3312	0.1919	0.2209	0.0000	5.16·10 ⁻⁷
318.15	1.3298	0.1876	0.2222	0.0000	5.24·10 ⁻⁷

³ Kalaivani, S., Srikanth, C.K., Regupathi, I.,(2012), Densities and Viscosities of Binary and Ternary Mixtures and Aqueous two-Phase System of Poly(ethylene glycol) 2000 + Diammonium hydrogen Citrate + Water at Different Temperatures, J. Chem. Eng. Data., 57, 2528-2534.

E. Parámetros de ajuste de ATPs con Tween 20.

Tabla E.4 Parámetros de ajuste de las ecuaciones polinómicas^{3,4} (5.7) y (5.8) y las desviaciones cuadráticas medias (σ) de la densidad del sistema Tween 20 - Na₂S₂O₃ – agua

1.93 % Na ₂ S ₂ O ₃ ρ					
T (K)	A ₀	A ₁	A ₂	A ₃	σ
288.15	0.1676	3.1627	0.0000	0.0000	7.46·10 ⁻²
298.15	0.1371	0.8134	0.0000	0.0000	6.26·10 ⁻⁶
308.15	0.1300	0.8010	0.0000	0.0000	5.46·10 ⁻⁶
318.15	0.1218	0.8014	0.0000	0.0000	5.23·10 ⁻⁶
4.86% Na ₂ S ₂ O ₃ ρ					
T (K)	A ₀	A ₁	A ₂	A ₃	σ
288.15	0.1470	0.8294	0.0000	0.0000	8.80·10 ⁻⁷
298.15	0.1358	0.8097	0.0000	0.0000	3.68·10 ⁻⁶
308.15	0.1330	0.7982	0.0000	0.0000	8.01·10 ⁻⁷
318.15	0.1270	0.7876	0.0000	0.0000	1.05·10 ⁻⁶
7.00 % Na ₂ S ₂ O ₃ ρ					
T (K)	A ₀	A ₁	A ₂	A ₃	σ
288.15	0.8169	0.1500	0.0000	0.0000	4.04·10 ⁻⁵
298.15	0.8165	0.1425	0.0000	0.0000	4.87·10 ⁻⁶
308.15	0.8034	0.1363	0.0000	0.0000	5.32·10 ⁻⁶
318.15	0.7932	0.1311	0.0000	0.0000	6.24·10 ⁻⁶
9.88 % Na ₂ S ₂ O ₃ ρ					
T (K)	A ₀	A ₁	A ₂	A ₃	σ
288.15	0.8079	0.1222	0.0000	0.0000	4.23·10 ⁻⁶
298.15	0.7860	0.1157	0.0000	0.0000	4.20·10 ⁻⁶
308.15	0.8593	0.1222	0.0000	0.0000	4.23·10 ⁻⁶
318.15	0.7860	0.1157	0.0000	0.0000	4.31·10 ⁻⁶
12.00 % Na ₂ S ₂ O ₃ ρ					
T (K)	A ₀	A ₁	A ₂	A ₃	σ
288.15	0.8506	0.1380	0.0000	0.0000	4.11·10 ⁻⁹
298.15	0.8358	0.1264	0.0000	0.0000	5.91·10 ⁻¹⁰
308.15	0.8237	0.1202	0.0000	0.0000	9.12·10 ⁻¹⁰
318.15	0.8145	0.1153	0.0000	0.0000	2.28·10 ⁻⁹

⁴ Regupathi, I., Covindarajan, R., Amaresh, S.P., Murugesan. T.,(2009), Densities and Viscosities of Polyethylene Glycol 6000 + Triammonium Citrate + Water Systems, J. Chem, Eng. Data, 54, 3291-3295.

E.2 Tween 20 – K₂HPO₄ - agua.

Tabla E.5 Parámetros de ajuste de la ecuación polinómica¹ (5.3) y las desviaciones cuadráticas medias (σ) del índice de refracción del sistema Tween 20 - K₂HPO₄ – agua

1.57 % K ₂ HPO ₄ n _D					
T (K)	A ₀	A ₁	A ₂	A ₃	σ
288.15	1.3335	0.1298	0.1368	0.0000	2.38·10 ⁻⁵
298.15	1.3326	0.1139	0.1375	0.0000	3.52·10 ⁻⁶
308.15	1.3312	0.1077	0.1393	0.0000	3.61·10 ⁻⁶
318.15	1.3298	0.0993	0.1431	0.0000	2.00·10 ⁻⁵
3.20 % K ₂ HPO ₄ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1728	0.1405	0.0000	2.42·10 ⁻⁷
298.15	1.3326	0.1676	0.1373	0.0000	2.73·10 ⁻⁷
308.15	1.3312	0.1683	0.1341	0.0000	2.71·10 ⁻⁷
318.15	1.3298	0.1672	0.1338	0.0000	6.27·10 ⁻⁷
5.19 % K ₂ HPO ₄ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1480	0.1618	0.0000	1.99·10 ⁻⁶
298.15	1.3326	0.1441	0.1582	0.0000	1.84·10 ⁻⁶
308.15	1.3312	0.1455	0.1534	0.0000	1.71·10 ⁻⁶
318.15	1.3298	0.1471	0.1512	0.0000	1.18·10 ⁻⁶
7.19 % K ₂ HPO ₄ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1611	0.1285	0.0000	2.36·10 ⁻⁸
298.15	1.3326	0.1576	0.1254	0.0000	7.85·10 ⁻⁸
308.15	1.3312	0.1598	0.1227	0.0000	5.92·10 ⁻⁷
318.15	1.3298	0.1632	0.1207	0.0000	7.50·10 ⁻⁷

E. Parámetros de ajuste de ATPs con Tween 20.

Tabla E.6 Parámetros de ajuste de la ecuación polinómica² (5.5) y las desviaciones cuadráticas medias (σ) de la densidad del sistema Tween 20 - K₂HPO₄ – agua

1.57 % K ₂ HPO ₄ ρ					
T (K)	ρ_0	A ₁	A ₂	A ₃	σ
288.15	0.9991	1.4363	29.7911	1773.1363	2.46·10 ⁻³
298.15	0.9970	1.4042	27.7438	1642.7348	2.18·10 ⁻³
308.15	0.9940	1.3738	25.8067	1519.3478	1.95·10 ⁻³
318.15	0.9902	1.3546	24.5858	1441.5871	1.78·10 ⁻³
3.20 % K ₂ HPO ₄ ρ					
T (K)	ρ_0	A ₁	A ₂	A ₃	σ
288.15	0.9991	1.1091	5.4100	109.5629	6.43·10 ⁻⁴
298.15	0.9970	1.0944	4.9506	95.2074	5.84·10 ⁻⁴
308.15	0.9940	1.0826	4.5806	83.6450	5.33·10 ⁻⁴
318.15	0.9902	1.1849	7.7769	183.5269	1.25·10 ⁻³
5.19 % K ₂ HPO ₄ ρ					
T (K)	ρ_0	A ₁	A ₂	A ₃	σ
288.15	0.9991	0.9540	1.1139	-14.0731	4.97·10 ⁻⁵
298.15	0.9970	0.9477	0.9915	-16.4312	4.50·10 ⁻⁵
308.15	0.9940	0.9427	0.8955	-18.2815	4.08·10 ⁻⁵
318.15	0.9902	0.9265	0.5845	-24.2728	1.37·10 ⁻⁴
7.19 % K ₂ HPO ₄ ρ					
T (K)	ρ_0	A ₁	A ₂	A ₃	σ
288.15	0.9991	0.9299	1.0250	-10.5600	4.68·10 ⁻⁵
298.15	0.9970	0.9086	0.7294	-14.6721	3.95·10 ⁻⁵
308.15	0.9940	0.9197	0.8829	-12.5366	3.91·10 ⁻⁵
318.15	0.9902	0.9163	0.8360	-13.1890	3.62·10 ⁻⁵

Tabla E.7 Parámetros de ajuste de la ecuación polinómica³ (5.6) y las desviaciones cuadráticas medias (σ) del índice de refracción del sistema Tween 20 - K₂HPO₄ – agua.

1.57 % K ₂ HPO ₄ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1298	0.1368	0.0000	2.38·10 ⁻⁵
298.15	1.3326	0.1139	0.1375	0.0000	3.52·10 ⁻⁶
308.15	1.3312	0.1077	0.1393	0.0000	3.61·10 ⁻⁶
318.15	1.3298	0.0993	0.1431	0.0000	2.00·10 ⁻⁵
3.20 % K ₂ HPO ₄ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1728	0.1405	0.0000	2.42·10 ⁻⁷
298.15	1.3326	0.1676	0.1373	0.0000	2.73·10 ⁻⁷
308.15	1.3312	0.1683	0.1341	0.0000	2.71·10 ⁻⁷
318.15	1.3298	0.1672	0.1338	0.0000	6.27·10 ⁻⁷
5.19 % K ₂ HPO ₄ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1480	0.1618	0.0000	1.99·10 ⁻⁶
298.15	1.3326	0.1441	0.1582	0.0000	1.84·10 ⁻⁶
308.15	1.3312	0.1455	0.1534	0.0000	1.71·10 ⁻⁶
318.15	1.3298	0.1471	0.1512	0.0000	1.18·10 ⁻⁶
7.19 % K ₂ HPO ₄ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1611	0.1285	0.0000	2.36·10 ⁻⁸
298.15	1.3326	0.1576	0.1254	0.0000	7.85·10 ⁻⁸
308.15	1.3312	0.1598	0.1227	0.0000	5.92·10 ⁻⁷
318.15	1.3298	0.1632	0.1207	0.0000	7.50·10 ⁻⁷

E. Parámetros de ajuste de ATPs con Tween 20.

Tabla E.8 Parámetros de ajuste de las ecuaciones polinómicas^{3,4} (5.7) y (5.8) y las desviaciones cuadráticas medias (σ) de la densidad del sistema Tween 20 - K_2HPO_4 – agua

1.57 % K_2HPO_4 ρ					
T (K)	A_0	A_1	A_2	A_3	σ
288.15	0.8257	0.1403	0.0000	0.0000	$1.41 \cdot 10^{-6}$
298.15	0.8421	0.1322	0.0000	0.0000	$1.35 \cdot 10^{-6}$
308.15	0.8279	0.1250	0.0000	0.0000	$2.68 \cdot 10^{-6}$
318.15	0.8284	0.1195	0.0000	0.0000	$9.14 \cdot 10^{-7}$
3.20 % K_2HPO_4 ρ					
T (K)	A_0	A_1	A_2	A_3	σ
288.15	0.8619	0.1461	0.0000	0.0000	$5.88 \cdot 10^{-6}$
298.15	0.8430	0.1391	0.0000	0.0000	$5.57 \cdot 10^{-6}$
308.15	0.8302	0.1329	0.0000	0.0000	$5.44 \cdot 10^{-6}$
318.15	0.8988	0.1126	0.0000	0.0000	$1.37 \cdot 10^{-5}$
5.19 % K_2HPO_4 ρ					
T (K)	A_0	A_1	A_2	A_3	σ
288.15	0.9199	0.0521	0.0000	0.0000	$1.21 \cdot 10^{-5}$
298.15	0.9039	0.0491	0.0000	0.0000	$1.15 \cdot 10^{-5}$
308.15	0.8916	0.0466	0.0000	0.0000	$1.07 \cdot 10^{-5}$
318.15	0.8147	0.0741	0.0000	0.0000	$6.11 \cdot 10^{-5}$
7.19 % K_2HPO_4 ρ					
T (K)	A_0	A_1	A_2	A_3	σ
288.15	0.8836	0.1479	0.0000	0.0000	$4.00 \cdot 10^{-6}$
298.15	0.8925	-0.0164	0.0000	0.0000	$3.90 \cdot 10^{-6}$
308.15	0.8589	0.1346	0.0000	0.0000	$3.75 \cdot 10^{-6}$
318.15	0.8512	0.1291	0.0000	0.0000	$3.65 \cdot 10^{-6}$

E.3 Tween 20 – K₃PO₄ - agua.

Tabla E.9: Parámetros de ajuste de la ecuación polinómica¹ (5.3) y las desviaciones cuadráticas medias (σ) del índice de refracción del sistema Tween 20 - K₃PO₄ – agua

2.00 % K ₃ PO ₄ n_D					
T (K)	A ₀	A ₁	A ₂	A ₃	σ
288.15	1.3335	0.1817	0.1406	0.0000	$1.47 \cdot 10^{-6}$
298.15	1.3326	0.1756	0.1376	0.0000	$1.47 \cdot 10^{-6}$
308.15	1.3312	0.1774	0.1352	0.0000	$1.66 \cdot 10^{-6}$
318.15	1.3298	0.1741	0.1366	0.0000	$1.52 \cdot 10^{-6}$
4.43 % K ₃ PO ₄ n_D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1864	0.1397	0.0000	$6.08 \cdot 10^{-6}$
298.15	1.3326	0.1802	0.1370	0.0000	$5.25 \cdot 10^{-6}$
308.15	1.3312	0.1702	0.1364	0.0000	$2.66 \cdot 10^{-6}$
318.15	1.3298	0.1868	0.1340	0.0000	$4.23 \cdot 10^{-6}$
7.19 % K ₃ PO ₄ n_D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1812	0.1509	0.0000	$1.02 \cdot 10^{-7}$
298.15	1.3326	0.1768	0.1475	0.0000	$5.02 \cdot 10^{-8}$
308.15	1.3312	0.1770	0.1440	0.0000	$4.95 \cdot 10^{-8}$
318.15	1.3298	0.1900	0.1242	0.0000	$3.66 \cdot 10^{-6}$
10.26 % K ₃ PO ₄ n_D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1843	0.1323	0.0000	$4.07 \cdot 10^{-8}$
298.15	1.3326	0.1772	0.1279	0.0000	$2.97 \cdot 10^{-7}$
308.15	1.3312	0.1775	0.1211	0.0000	$2.15 \cdot 10^{-7}$
318.15	1.3298	0.1795	0.1251	0.0000	$1.91 \cdot 10^{-7}$

E. Parámetros de ajuste de ATPs con Tween 20.

Tabla E.10: Parámetros de ajuste de la ecuación polinómica² (5.5) y las desviaciones cuadráticas medias (σ) de la densidad del sistema Tween 20 - K_3PO_4 – agua

2.00 % K_3PO_4 ρ					
T (K)	ρ_0	A_1	A_2	A_3	σ
288.15	0.9991	1.3365	18.8232	844.1603	$1.14 \cdot 10^{-3}$
298.15	0.9970	1.3118	17.5902	782.5103	$1.02 \cdot 10^{-3}$
308.15	0.9940	1.2914	16.5712	731.5599	$9.24 \cdot 10^{-4}$
318.15	0.9902	1.2743	15.7152	688.7595	$8.46 \cdot 10^{-4}$
4.43 % K_3PO_4 ρ					
T (K)	ρ_0	A_1	A_2	A_3	σ
288.15	0.9991	1.0640	3.4437	35.5900	$1.13 \cdot 10^{-3}$
298.15	0.9970	1.0549	3.2388	30.9647	$5.84 \cdot 10^{-4}$
308.15	0.9940	1.0443	2.9991	25.5533	$9.25 \cdot 10^{-4}$
318.15	0.9902	1.0372	2.8402	21.9664	$8.49 \cdot 10^{-4}$
7.19 % K_3PO_4 ρ					
T (K)	ρ_0	A_1	A_2	A_3	σ
288.15	0.9991	0.9852	1.7942	0.1378	$2.00 \cdot 10^{-4}$
298.15	0.9970	0.9761	1.6671	-1.6295	$1.71 \cdot 10^{-4}$
308.15	0.9940	0.9705	1.5904	-2.6969	$1.58 \cdot 10^{-4}$
318.15	0.9902	0.9662	1.5305	-3.5292	$1.47 \cdot 10^{-4}$
10.26 % K_3PO_4 ρ					
T (K)	ρ_0	A_1	A_2	A_3	σ
288.15	0.9991	0.9206	1.2259	-4.5446	$2.87 \cdot 10^{-5}$
298.15	0.9970	0.9143	1.1651	-5.1369	$3.42 \cdot 10^{-5}$
308.15	0.9940	0.9093	1.1156	-5.6196	$4.18 \cdot 10^{-5}$
318.15	0.9902	0.9073	1.0969	-5.8026	$2.99 \cdot 10^{-5}$

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Tabla E.11 Parámetros de ajuste de la ecuación polinómica³ (5.6) y las desviaciones cuadráticas medias (σ) del índice de refracción del sistema Tween 20 - K_3PO_4 – agua.

2.00 % K_3PO_4 n_D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1817	0.1406	0.0000	$1.47 \cdot 10^{-6}$
298.15	1.3326	0.1756	0.1376	0.0000	$1.47 \cdot 10^{-6}$
308.15	1.3312	0.1774	0.1352	0.0000	$1.66 \cdot 10^{-6}$
318.15	1.3298	0.1741	0.1366	0.0000	$1.52 \cdot 10^{-6}$
4.43 % K_3PO_4 n_D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1864	0.1397	0.0000	$6.08 \cdot 10^{-6}$
298.15	1.3326	0.1802	0.1370	0.0000	$5.25 \cdot 10^{-6}$
308.15	1.3312	0.1702	0.1364	0.0000	$2.66 \cdot 10^{-6}$
318.15	1.3298	0.1868	0.1340	0.0000	$4.23 \cdot 10^{-6}$
7.19 % K_3PO_4 n_D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1812	0.1509	0.0000	$1.02 \cdot 10^{-7}$
298.15	1.3326	0.1768	0.1475	0.0000	$5.02 \cdot 10^{-8}$
308.15	1.3312	0.1770	0.1440	0.0000	$4.95 \cdot 10^{-8}$
318.15	1.3298	0.1900	0.1242	0.0000	$3.66 \cdot 10^{-6}$
10.26 % K_3PO_4 n_D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1843	0.1323	0.0000	$4.07 \cdot 10^{-8}$
298.15	1.3326	0.1772	0.1279	0.0000	$2.97 \cdot 10^{-7}$
308.15	1.3312	0.1775	0.1211	0.0000	$2.15 \cdot 10^{-7}$
318.15	1.3298	0.1795	0.1251	0.0000	$1.91 \cdot 10^{-7}$

E. Parámetros de ajuste de ATPs con Tween 20.

Tabla E.12: Parámetros de ajuste de las ecuaciones polinómicas^{3,4} (5.7) y (5.8) y las desviaciones cuadráticas medias (σ) de la densidad del sistema Tween 20 - K_3PO_4 – agua

2.00 % K_3PO_4 ρ					
T (K)	A_0	A_1	A_2	A_3	σ
288.15	0.9906	0.1394	0.0000	0.0000	$8.30 \cdot 10^{-7}$
298.15	0.9743	0.1318	0.0000	0.0000	$7.15 \cdot 10^{-7}$
308.15	0.9620	0.1254	0.0000	0.0000	$6.19 \cdot 10^{-7}$
318.15	0.9520	0.1199	0.0000	0.0000	$5.42 \cdot 10^{-7}$
4.43 % K_3PO_4 ρ					
T (K)	A_0	A_1	A_2	A_3	σ
288.15	0.9658	0.1335	0.0000	0.0000	$4.27 \cdot 10^{-6}$
298.15	0.9582	0.1254	0.0000	0.0000	$8.71 \cdot 10^{-6}$
308.15	0.9372	0.1208	0.0000	0.0000	$3.96 \cdot 10^{-6}$
318.15	0.9283	0.1157	0.0000	0.0000	$3.85 \cdot 10^{-6}$
7.19 % K_3PO_4 ρ					
T (K)	A_0	A_1	A_2	A_3	σ
288.15	1.0013	0.1366	0.0000	0.0000	$1.20 \cdot 10^{-5}$
298.15	0.9799	0.1294	0.0000	0.0000	$2.10 \cdot 10^{-6}$
308.15	0.9676	0.1242	0.0000	0.0000	$2.06 \cdot 10^{-6}$
318.15	0.9584	0.1198	0.0000	0.0000	$2.04 \cdot 10^{-6}$
10.26 % K_3PO_4 ρ					
T (K)	A_0	A_1	A_2	A_3	σ
288.15	0.9609	0.2014	0.0000	0.0000	$2.29 \cdot 10^{-6}$
298.15	0.9389	0.2187	0.0000	0.0000	$3.08 \cdot 10^{-6}$
308.15	0.9196	0.2403	0.0000	0.0000	$4.15 \cdot 10^{-6}$
318.15	0.9207	0.2039	0.0000	0.0000	$2.83 \cdot 10^{-6}$

E.4 Bibliografía.

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Anexo F

Parámetros de ajuste de ATPs con Triton X-102



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F. PARÁMETROS DE AJUSTE DE ATPS CON TRITON X-102.

F.1. Triton X-102 – Na₂S₂O₃ - agua.

Tabla F.1 Parámetros de ajuste de la ecuación polinómica ¹(5.3) y las desviaciones cuadráticas medias (σ) del índice de refracción del sistema Triton X-102 - Na₂S₂O₃ – agua

2.50% Na ₂ S ₂ O ₃ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1307	0.5186	0.0000	2.08·10 ⁻³
298.15	1.3326	0.1302	0.4743	0.0000	1.97·10 ⁻³
308.15	1.3312	0.1246	0.5006	0.0000	1.66·10 ⁻³
318.15	1.3298	0.1219	0.4729	0.0000	1.51·10 ⁻³
5.00% Na ₂ S ₂ O ₃ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.0778	0.3917	0.0000	2.35·10 ⁻⁴
298.15	1.3326	0.0749	0.3879	0.0000	2.78·10 ⁻⁴
308.15	1.3312	0.0467	0.4084	0.0000	2.70·10 ⁻⁴
318.15	1.3298	0.0491	0.3840	0.0000	2.60·10 ⁻⁴
7.48% Na ₂ S ₂ O ₃ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.0206	0.2946	0.0000	9.21·10 ⁻⁵
298.15	1.3326	0.0173	0.2902	0.0000	9.00·10 ⁻⁵
308.15	1.3312	0.0143	0.2912	0.0000	1.00·10 ⁻⁴
318.15	1.3298	0.0123	0.2872	0.0000	1.08·10 ⁻⁴
10.03% Na ₂ S ₂ O ₃ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.3044	0.1660	0.0000	9.57·10 ⁻⁶
298.15	1.3326	0.3062	0.1618	0.0000	8.05·10 ⁻⁶
308.15	1.3312	0.2994	0.1612	0.0000	7.89·10 ⁻⁶
318.15	1.3298	0.2846	0.1602	0.0000	6.04·10 ⁻⁶
12.55% Na ₂ S ₂ O ₃ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.3313	0.1344	0.0000	5.81·10 ⁻⁵
298.15	1.3326	0.3307	0.1313	0.0000	5.37·10 ⁻⁵
308.15	1.3312	0.3242	0.1311	0.0000	5.49·10 ⁻⁵
318.15	1.3298	0.3138	0.1285	0.0000	4.93·10 ⁻⁵

¹ Govindarajan, r., Divya, K., Perumalsamy, M., (2013), Phase Behavior and Density for Binary and Ternary Solutions of PEG 4000 + Triammonium Citrate + Water Aqueous Two Phase Systems at Different Temeperatures, J. Chem. Eng. Data., 58, 315-321.

F. Parámetros de ajuste de ATPs con Triton X-102.

Tabla F.2 Parámetros de ajuste de la ecuación polinómica² (5.5) y las desviaciones cuadráticas medias (σ) de la densidad del sistema Triton X-102 - Na₂S₂O₃ – agua

2.50% Na ₂ S ₂ O ₃ ρ					
T (K)	A	B	C	D	σ
288.15	1.0120	0.2500	-0.6491	0.8724	3.06·10 ⁻⁴
298.15	1.0093	0.2522	-0.6630	0.8454	2.55·10 ⁻⁴
308.15	1.0061	0.2420	-0.6462	0.8197	2.47·10 ⁻⁴
318.15	1.0021	0.2345	-0.6425	0.8182	2.42·10 ⁻⁴
5.00% Na ₂ S ₂ O ₃ ρ					
T (K)	A	B	C	D	σ
288.15	1.0206	0.6817	-4.3826	9.7565	9.19·10 ⁻⁴
298.15	1.0181	0.6624	-4.2968	9.5738	8.79·10 ⁻⁴
308.15	1.0147	0.6466	-4.2288	9.4298	8.50·10 ⁻⁴
318.15	1.0106	0.6353	-4.1880	9.3443	8.26·10 ⁻⁴
7.48% Na ₂ S ₂ O ₃ ρ					
T (K)	A	B	C	D	σ
288.15	1.0314	1.1686	-9.4908	25.0631	2.04·10 ⁻³
298.15	1.0287	1.1402	-9.3122	24.6223	1.96·10 ⁻³
308.15	1.0252	1.1176	-9.1740	24.2754	1.90·10 ⁻³
318.15	1.0210	1.1027	-9.1114	24.0762	1.86·10 ⁻³
10.03% Na ₂ S ₂ O ₃ ρ					
T (K)	A	B	C	D	σ
288.15	1.0416	1.9446	-23.6489	94.6387	3.60·10 ⁻³
298.15	1.0387	1.8999	-23.1827	92.7987	3.47·10 ⁻³
308.15	1.0351	1.8638	-22.8000	91.1899	3.37·10 ⁻³
318.15	1.0308	1.8367	-22.5553	89.9877	3.29·10 ⁻³
12.55% Na ₂ S ₂ O ₃ ρ					
T (K)	A	B	C	D	σ
288.15	1.0114	0.3328	-1.3096	2.3101	2.95·10 ⁻⁴
298.15	1.0091	0.3213	-1.2916	2.2819	2.81·10 ⁻⁴
308.15	1.0059	0.3117	-1.2780	2.2605	2.72·10 ⁻⁴
318.15	1.0020	0.3007	-1.2390	2.1819	2.62·10 ⁻⁴

² Saravanan, S., Reena, J.A., Rao, J.R., Murugesan, T., Nair, B.U.,(2006), Phase Equilibrium compositions, Densities, and Viscosities of Aqueous Two-Phase Poly(ethylene glycol) + Poly(acrylic acid) System at Various Temperatures, J. Chem. Eng. Data., 51 1246-1249.

Tabla F.3 Parámetros de ajuste de la ecuación polinómica³ (5.6) y las desviaciones cuadráticas medias (σ) del índice de refracción del sistema Triton X-102 - Na₂S₂O₃ – agua.

2.50% Na ₂ S ₂ O ₃ n_D						
T (K)	A	B	C	D	σ	
288.15	1.3335	0.1307	0.5186	0.0000	2.08·10 ⁻³	
298.15	1.3326	0.1302	0.4743	0.0000	1.97·10 ⁻³	
308.15	1.3312	0.1246	0.5006	0.0000	1.66·10 ⁻³	
318.15	1.3298	0.1219	0.4729	0.0000	1.51·10 ⁻³	
5.00% Na ₂ S ₂ O ₃ n_D						
T (K)	A	B	C	D	σ	
288.15	1.3335	0.0778	0.3917	0.0000	2.35·10 ⁻⁴	
298.15	1.3326	0.0749	0.3879	0.0000	2.78·10 ⁻⁴	
308.15	1.3312	0.0467	0.4084	0.0000	2.70·10 ⁻⁴	
318.15	1.3298	0.0491	0.3840	0.0000	2.60·10 ⁻⁴	
7.48% Na ₂ S ₂ O ₃ n_D						
T (K)	A	B	C	D	σ	
288.15	1.3335	0.0206	0.2946	0.0000	9.21·10 ⁻⁵	
298.15	1.3326	0.0173	0.2902	0.0000	9.00·10 ⁻⁵	
308.15	1.3312	0.0143	0.2912	0.0000	1.00·10 ⁻⁴	
318.15	1.3298	0.0123	0.2872	0.0000	1.08·10 ⁻⁴	
10.03% Na ₂ S ₂ O ₃ n_D						
T (K)	A	B	C	D	σ	
288.15	1.3335	0.3044	0.1660	0.0000	9.57·10 ⁻⁶	
298.15	1.3326	0.3062	0.1618	0.0000	8.05·10 ⁻⁶	
308.15	1.3312	0.2994	0.1612	0.0000	7.89·10 ⁻⁶	
318.15	1.3298	0.2846	0.1602	0.0000	6.04·10 ⁻⁶	
12.55% Na ₂ S ₂ O ₃ n_D						
T (K)	A	B	C	D	σ	
288.15	1.3335	0.3313	0.1344	0.0000	5.81·10 ⁻⁵	
298.15	1.3326	0.3307	0.1313	0.0000	5.37·10 ⁻⁵	
308.15	1.3312	0.3242	0.1311	0.0000	5.49·10 ⁻⁵	
318.15	1.3298	0.3138	0.1285	0.0000	4.93·10 ⁻⁵	

³ Kalaivani, S., Srikanth, C.K., Regupathi, I.,(2012), Densities and Viscosities of Binary and Ternary Mixtures and Aqueous two-Phase System of Poly(ethylene glycol) 2000 + Diammonium hydrogen Citrate + Water at Different Temperatures, J. Chem. Eng. Data., 57, 2528-2534.

F. Parámetros de ajuste de ATPs con Triton X-102.

Tabla F.4 Parámetros de ajuste de las ecuaciones polinómicas^{3,4} (5.7) y (5.8) y las desviaciones cuadráticas medias (σ) de la densidad del sistema Tween 20 - Na₂S₂O₃ - agua.

2.50% Na ₂ S ₂ O ₃ ρ					
T (K)	A	B	C	D	σ
288.15	0.8255	0.1127	0.0000	0.0000	$3.05 \cdot 10^{-5}$
298.15	0.8317	0.1041	0.0000	0.0000	$1.89 \cdot 10^{-6}$
308.15	0.8194	0.0968	0.0000	0.0000	$1.76 \cdot 10^{-6}$
318.15	0.8088	0.0908	0.0000	0.0000	$2.26 \cdot 10^{-6}$
5.00% Na ₂ S ₂ O ₃ ρ					
T (K)	A	B	C	D	σ
288.15	0.8592	0.1099	0.0000	0.0000	$5.17 \cdot 10^{-7}$
298.15	0.8353	0.1025	0.0000	0.0000	$5.40 \cdot 10^{-7}$
308.15	0.8214	0.0960	0.0000	0.0000	$5.62 \cdot 10^{-7}$
318.15	0.8100	0.0907	0.0000	0.0000	$5.94 \cdot 10^{-7}$
7.48% Na ₂ S ₂ O ₃ ρ					
T (K)	A	B	C	D	σ
288.15	0.8528	0.1143	0.0000	0.0000	$5.43 \cdot 10^{-7}$
298.15	0.8353	0.1070	0.0000	0.0000	$4.46 \cdot 10^{-7}$
308.15	0.8221	0.1004	0.0000	0.0000	$4.09 \cdot 10^{-7}$
318.15	0.8138	0.0919	0.0000	0.0000	$4.45 \cdot 10^{-7}$
10.03% Na ₂ S ₂ O ₃ ρ					
T (K)	A	B	C	D	σ
288.15	0.8477	0.1213	0.0000	0.0000	$1.29 \cdot 10^{-8}$
298.15	0.8314	0.1126	0.0000	0.0000	$7.03 \cdot 10^{-9}$
308.15	0.8190	0.1044	0.0000	0.0000	$8.37 \cdot 10^{-9}$
318.15	0.8104	0.0932	0.0000	0.0000	$5.87 \cdot 10^{-8}$
12.55% Na ₂ S ₂ O ₃ ρ					
T (K)	A	B	C	D	σ
288.15	0.9016	0.1134	0.0000	0.0000	$1.08 \cdot 10^{-5}$
298.15	0.8826	0.1053	0.0000	0.0000	$9.80 \cdot 10^{-6}$
308.15	0.8687	0.0984	0.0000	0.0000	$9.04 \cdot 10^{-6}$
318.15	0.8581	0.0925	0.0000	0.0000	$5.02 \cdot 10^{-6}$

⁴ Regupathi, I., Covindarajan, R., Amaresh, S.P., Murugesan, T., (2009), Densities and Viscosities of Polyethylene Glycol 6000 + Triammonium Citrate + Water Systems, J. Chem, Eng. Data., 54, 3291-3295.

F.2. Triton X-102 – K₂HPO₄ - agua.

Tabla F.5 Parámetros de ajuste de la ecuación polinómica¹ (5.3) y las desviaciones cuadráticas medias (σ) del índice de refracción del sistema Triton X-102 - K₂HPO₄ – agua

2.54% K ₂ HPO ₄ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1646	0.1768	0.0000	1.92·10 ⁻⁶
298.15	1.3326	0.1615	0.1733	0.0000	2.66·10 ⁻⁶
308.15	1.3312	0.1565	0.1796	0.0000	1.04·10 ⁻⁶
318.15	1.3298	0.1520	0.1681	0.0000	2.68·10 ⁻⁷
5.08% K ₂ HPO ₄ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.0182	0.3472	0.0000	2.78·10 ⁻⁴
298.15	1.3326	0.0139	0.3380	0.0000	2.67·10 ⁻⁴
308.15	1.3312	0.0141	0.3104	0.0000	2.20·10 ⁻⁴
318.15	1.3298	0.0120	0.2994	0.0000	1.91·10 ⁻⁴
7.48% K ₂ HPO ₄ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.0363	0.1657	0.0000	3.49·10 ⁻⁷
298.15	1.3326	0.0326	0.1619	0.0000	5.01·10 ⁻⁷
308.15	1.3312	0.0337	0.1559	0.0000	8.77·10 ⁻⁷
318.15	1.3298	0.0298	0.1588	0.0000	2.63·10 ⁻⁶
10.03% K ₂ HPO ₄ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.0678	0.1601	0.0000	2.17·10 ⁻⁷
298.15	1.3326	0.0695	0.1567	0.0000	2.17·10 ⁻⁷
308.15	1.3312	0.0429	0.1581	0.0000	2.45·10 ⁻⁸
318.15	1.3298	0.0409	0.1591	0.0000	7.75·10 ⁻⁸
12.55% K ₂ HPO ₄ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1119	0.1568	0.0000	5.22·10 ⁻⁸
298.15	1.3326	0.1530	0.1527	0.0000	4.98·10 ⁻⁸
308.15	1.3312	0.1130	0.1526	0.0000	3.47·10 ⁻⁸
318.15	1.3298	0.0778	0.1527	0.0000	1.08·10 ⁻⁷

F. Parámetros de ajuste de ATPs con Triton X-102.

Tabla F.6 Parámetros de ajuste de la ecuación polinómica² (5.5) y las desviaciones cuadráticas medias (σ) de la densidad del sistema Triton X-102 - K_2HPO_4 – agua

2.54% $K_2HPO_4 \rho$					
T (K)	ρ_0	A_1	A_2	A_3	σ
288.15	1.0103	0.2996	-0.9367	1.3959	$2.43 \cdot 10^{-4}$
298.15	1.0080	0.2892	-0.9257	1.3815	$2.34 \cdot 10^{-4}$
308.15	1.0133	-1.8500	21.8598	-46.7184	$7.70 \cdot 10^{-2}$
318.15	1.0009	0.2743	-0.9224	1.3854	$2.23 \cdot 10^{-4}$
5.08% $K_2HPO_4 \rho$					
T (K)	ρ_0	A_1	A_2	A_3	σ
288.15	1.0223	0.6704	-3.9918	8.4834	$1.04 \cdot 10^{-3}$
298.15	1.0201	0.5771	-2.5884	3.6139	$1.03 \cdot 10^{-3}$
308.15	1.0166	0.6388	-3.8689	8.2400	$9.85 \cdot 10^{-4}$
318.15	1.0126	0.6223	-3.7538	7.9521	$9.70 \cdot 10^{-4}$
7.48% $K_2HPO_4 \rho$					
T (K)	ρ_0	A_1	A_2	A_3	σ
288.15	1.0319	1.1580	-10.5388	35.1682	$2.15 \cdot 10^{-3}$
298.15	1.0293	1.1457	-10.6505	36.0722	$2.08 \cdot 10^{-3}$
308.15	1.0259	1.1247	-10.5562	36.0676	$2.03 \cdot 10^{-3}$
318.15	1.0218	1.1169	-10.6612	36.8334	$1.99 \cdot 10^{-3}$
10.03% $K_2HPO_4 \rho$					
T (K)	ρ_0	A_1	A_2	A_3	σ
288.15	1.0435	8.6177	-496.8238	8713.6686	$3.94 \cdot 10^{-3}$
298.15	1.0408	8.4762	-489.1972	8581.6048	$3.82 \cdot 10^{-3}$
308.15	1.0373	8.3720	-483.6298	8483.9559	$3.73 \cdot 10^{-3}$
318.15	1.0331	8.2917	-479.3609	8410.1391	$3.67 \cdot 10^{-3}$
12.55% $K_2HPO_4 \rho$					
T (K)	ρ_0	A_1	A_2	A_3	σ
288.15	1.0551	53.3924	-14449.2574	1244808.4671	$6.27 \cdot 10^{-3}$
298.15	1.0523	51.6824	-14273.3893	1231103.8761	$6.10 \cdot 10^{-3}$
308.15	1.0487	51.1342	-14136.5199	1220462.1042	$5.96 \cdot 10^{-3}$
318.15	1.0444	50.5298	-13900.8918	1193804.325	$5.87 \cdot 10^{-3}$

Tabla F.7 Parámetros de ajuste de la ecuación polinómica³ (5.6) y las desviaciones cuadráticas medias (σ) del índice de refracción del sistema Triton X-102 - K₂HPO₄ – agua.

2.54% K ₂ HPO ₄ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1646	0.1768	0.0000	1.92·10 ⁻⁶
298.15	1.3326	0.1615	0.1733	0.0000	2.66·10 ⁻⁶
308.15	1.3312	0.1565	0.1796	0.0000	1.04·10 ⁻⁶
318.15	1.3298	0.1520	0.1681	0.0000	2.68·10 ⁻⁷
5.08% K ₂ HPO ₄ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.0182	0.3472	0.0000	2.78·10 ⁻⁴
298.15	1.3326	0.0139	0.3380	0.0000	2.67·10 ⁻⁴
308.15	1.3312	0.0141	0.3104	0.0000	2.20·10 ⁻⁴
318.15	1.3298	0.0120	0.2994	0.0000	1.91·10 ⁻⁴
7.48% K ₂ HPO ₄ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.0363	0.1657	0.0000	3.49·10 ⁻⁷
298.15	1.3326	0.0326	0.1619	0.0000	5.01·10 ⁻⁷
308.15	1.3312	0.0337	0.1559	0.0000	8.77·10 ⁻⁷
318.15	1.3298	0.0298	0.1588	0.0000	2.63·10 ⁻⁶
10.03% K ₂ HPO ₄ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.0678	0.1601	0.0000	2.17·10 ⁻⁷
298.15	1.3326	0.0695	0.1567	0.0000	2.17·10 ⁻⁷
308.15	1.3312	0.0429	0.1581	0.0000	2.45·10 ⁻⁸
318.15	1.3298	0.0409	0.1591	0.0000	7.75·10 ⁻⁸
12.55% K ₂ HPO ₄ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1119	0.1568	0.0000	5.22·10 ⁻⁸
298.15	1.3326	0.1530	0.1527	0.0000	4.98·10 ⁻⁸
308.15	1.3312	0.1130	0.1526	0.0000	3.47·10 ⁻⁸
318.15	1.3298	0.0778	0.1527	0.0000	1.08·10 ⁻⁷

F. Parámetros de ajuste de ATPs con Triton X-102.

Tabla F.8 Parámetros de ajuste de las ecuaciones polinómicas^{3,4} (5.7) y (5.8) y las desviaciones cuadráticas medias (σ) de la densidad del sistema Tween 20 - K_2HPO_4 – agua

2.54% K_2HPO_4 ρ						
T (K)	ρ_0	A_1	A_2	A_3	σ	
288.15	0.8697	0.1111	0.0000	0.0000	$4.24 \cdot 10^{-7}$	
298.15	0.8539	0.1033	0.0000	0.0000	$4.33 \cdot 10^{-7}$	
308.15	0.8412	0.0974	0.0000	0.0000	$1.23 \cdot 10^{-6}$	
318.15	0.8352	0.0905	0.0000	0.0000	$5.43 \cdot 10^{-7}$	
5.08% K_2HPO_4 ρ						
T (K)	ρ_0	A_1	A_2	A_3	σ	
288.15	0.8764	0.1147	0.0000	0.0000	$2.52 \cdot 10^{-6}$	
298.15	0.8933	0.0842	0.0000	0.0000	$6.38 \cdot 10^{-5}$	
308.15	0.8497	0.1012	0.0000	0.0000	$2.77 \cdot 10^{-6}$	
318.15	0.8410	0.0968	0.0000	0.0000	$4.16 \cdot 10^{-6}$	
7.48% K_2HPO_4 ρ						
T (K)	ρ_0	A_1	A_2	A_3	σ	
288.15	0.8678	0.1468	0.0000	0.0000	$7.13 \cdot 10^{-6}$	
298.15	0.8521	0.1412	0.0000	0.0000	$9.23 \cdot 10^{-6}$	
308.15	0.8401	0.1365	0.0000	0.0000	$1.10 \cdot 10^{-5}$	
318.15	0.8312	0.1316	0.0000	0.0000	$1.32 \cdot 10^{-5}$	
10.03% K_2HPO_4 ρ						
T (K)	ρ_0	A_1	A_2	A_3	σ	
288.15	0.8842	0.1290	0.0000	0.0000	$1.33 \cdot 10^{-7}$	
298.15	0.8707	0.1193	0.0000	0.0000	$1.33 \cdot 10^{-7}$	
308.15	0.8607	0.1103	0.0000	0.0000	$1.29 \cdot 10^{-7}$	
318.15	0.8534	0.1024	0.0000	0.0000	$1.31 \cdot 10^{-7}$	
12.55% K_2HPO_4 ρ						
T (K)	ρ_0	A_1	A_2	A_3	σ	
288.15	0.9006	-0.0162	0.0000	0.0000	$4.39 \cdot 10^{-6}$	
298.15	0.8876	-0.0291	0.0000	0.0000	$4.31 \cdot 10^{-6}$	
308.15	0.8780	-0.0391	0.0000	0.0000	$4.20 \cdot 10^{-6}$	
318.15	0.8709	-0.0354	0.0000	0.0000	$4.07 \cdot 10^{-6}$	

F.3. Triton X-102 – K₃PO₄ - agua.

Tabla F.9 Parámetros de ajuste de la ecuación polinómica¹ (5.3) y las desviaciones cuadráticas medias (σ) del índice de refracción del sistema Triton X-102 - K₃PO₄ – agua

2.53% K ₃ PO ₄ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1194	0.3862	0.0000	2.29·10 ⁻³
298.15	1.3326	0.1155	0.3909	0.0000	2.24·10 ⁻³
308.15	1.3313	0.1122	0.3812	0.0000	2.18·10 ⁻³
318.15	1.3298	0.1094	0.3588	0.0000	2.02·10 ⁻³
5.01% K ₃ PO ₄ n _D					
T (K)	A	B	C	D	σ
288.15	1.3473	2.4701·10 ⁻⁴	4.7463·10 ⁻⁴	0.0000	9.35·10 ⁻⁴
298.15	1.3494	2.2228·10 ⁻⁴	-2.2449·10 ⁻⁴	0.0000	1.09·10 ⁻³
308.15	1.3516	1.8086·10 ⁻⁴	-9.7273·10 ⁻⁴	0.0000	1.32·10 ⁻³
318.15	1.3533	1.5006·10 ⁻⁴	-1.6566·10 ⁻³	0.0000	1.58·10 ⁻³
7.58% K ₃ PO ₄ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.0431	0.1836	0.0000	1.18·10 ⁻⁵
298.15	1.3326	0.0418	0.1777	0.0000	1.05·10 ⁻⁵
308.15	1.3312	0.0403	0.1768	0.0000	5.30·10 ⁻⁶
318.15	1.3298	0.0387	0.1728	0.0000	6.28·10 ⁻⁶
10.26% K ₃ PO ₄ n _D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1208	0.1670	0.0000	2.31·10 ⁻⁶
298.15	1.3326	0.1152	0.1631	0.0000	2.25·10 ⁻⁶
308.15	1.3312	0.1007	0.1654	0.0000	3.28·10 ⁻⁶
318.15	1.3298	0.0913	0.1642	0.0000	2.36·10 ⁻⁶

F. Parámetros de ajuste de ATPs con Triton X-102.

Tabla F.10 Parámetros de ajuste de la ecuación polinómica² (5.5) y las desviaciones cuadráticas medias (σ) de la densidad del sistema Triton X-102 - K_3PO_4 – agua.

2.53% K_3PO_4 ρ					
T (K)	ρ_0	A_1	A_2	A_3	σ
288.15	1.0124	0.3089	-1.0178	1.4874	$4.31 \cdot 10^{-4}$
298.15	1.0104	0.2689	-0.7249	0.9385	$3.20 \cdot 10^{-4}$
308.15	1.0072	0.2596	-0.7138	0.9244	$3.10 \cdot 10^{-4}$
318.15	1.0033	0.2525	-0.7111	0.9237	$3.02 \cdot 10^{-4}$
5.01% K_3PO_4 ρ					
T (K)	ρ_0	A_1	A_2	A_3	σ
288.15	1.0261	0.5473	-2.5452	4.6769	$1.47 \cdot 10^{-3}$
298.15	1.0237	0.5274	-2.4454	4.4707	$1.45 \cdot 10^{-3}$
308.15	1.0203	0.5106	-2.3647	4.3085	$1.46 \cdot 10^{-3}$
318.15	1.0237	0.5274	-2.4454	4.4707	$1.43 \cdot 10^{-3}$
7.58% K_3PO_4 ρ					
T (K)	ρ_0	A_1	A_2	A_3	σ
288.15	1.0453	0.7517	-3.7139	7.3716	$3.54 \cdot 10^{-3}$
298.15	1.0423	0.7574	-3.8024	7.5384	$3.39 \cdot 10^{-3}$
308.15	1.0388	0.7556	-3.8282	7.5591	$3.34 \cdot 10^{-3}$
318.15	1.0345	0.7240	-3.6445	7.2176	$3.25 \cdot 10^{-3}$
10.26% K_3PO_4 ρ					
T (K)	ρ_0	A_1	A_2	A_3	σ
288.15	1.0392	7.5557	-251.6060	577.8664	$3.21 \cdot 10^{-3}$
298.15	1.0405	8.1686	-279.3540	960.0286	$3.77 \cdot 10^{-3}$
308.15	1.0411	9.0686	-346.7075	2519.4049	$4.42 \cdot 10^{-3}$
318.15	1.0409	9.8294	-391.2630	3343.1913	$5.14 \cdot 10^{-3}$

CARACTERIZACIÓN FÍSICO QUÍMICA DE SISTEMAS ORGÁNICO-ACUOSO Y ACUOSO-ACUOSO.

Tabla F.11 Parámetros de ajuste de la ecuación polinómica³ (5.6) y las desviaciones cuadráticas medias (σ) del índice de refracción del sistema Triton X-102 - K_3PO_4 – agua.

2.53% K_3PO_4 n_D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1194	0.3862	0.0000	$2.29 \cdot 10^{-3}$
298.15	1.3326	0.1155	0.3909	0.0000	$2.24 \cdot 10^{-3}$
308.15	1.3313	0.1122	0.3812	0.0000	$2.18 \cdot 10^{-3}$
318.15	1.3298	0.1094	0.3588	0.0000	$2.02 \cdot 10^{-3}$
5.01% K_3PO_4 n_D					
T (K)	A	B	C	D	σ
288.15	1.3473	$2.4701 \cdot 10^{-4}$	$4.7463 \cdot 10^{-4}$	0.0000	$9.35 \cdot 10^{-4}$
298.15	1.3494	$2.2228 \cdot 10^{-4}$	$-2.2449 \cdot 10^{-4}$	0.0000	$1.09 \cdot 10^{-3}$
308.15	1.3516	$1.8086 \cdot 10^{-4}$	$-9.7273 \cdot 10^{-4}$	0.0000	$1.32 \cdot 10^{-3}$
318.15	1.3533	$1.5006 \cdot 10^{-4}$	$-1.6566 \cdot 10^{-3}$	0.0000	$1.58 \cdot 10^{-3}$
7.58% K_3PO_4 n_D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.0431	0.1836	0.0000	$1.18 \cdot 10^{-5}$
298.15	1.3326	0.0418	0.1777	0.0000	$1.05 \cdot 10^{-5}$
308.15	1.3312	0.0403	0.1768	0.0000	$5.30 \cdot 10^{-6}$
318.15	1.3298	0.0387	0.1728	0.0000	$6.28 \cdot 10^{-6}$
10.26% K_3PO_4 n_D					
T (K)	A	B	C	D	σ
288.15	1.3335	0.1208	0.1670	0.0000	$2.31 \cdot 10^{-6}$
298.15	1.3326	0.1152	0.1631	0.0000	$2.25 \cdot 10^{-6}$
308.15	1.3312	0.1007	0.1654	0.0000	$3.28 \cdot 10^{-6}$
318.15	1.3298	0.0913	0.1642	0.0000	$2.36 \cdot 10^{-6}$

F. Parámetros de ajuste de ATPs con Triton X-102.

Tabla F.12 Parámetros de ajuste de las ecuaciones polinómicas^{3,4} (5.7) y (5.8) y las desviaciones cuadráticas medias (σ) de la densidad del sistema Triton X-102 - K_3PO_4 – agua

2.53% K_3PO_4 ρ						
T (K)	ρ_0	A_1	A_2	A_3	σ	
288.15	0.7553	0.1261	0.0000	0.0000	$5.93 \cdot 10^{-4}$	
298.15	0.7406	0.1215	0.0000	0.0000	$4.60 \cdot 10^{-4}$	
308.15	0.7297	0.1145	0.0000	0.0000	$4.46 \cdot 10^{-4}$	
318.15	0.7221	0.1084	0.0000	0.0000	$4.35 \cdot 10^{-4}$	
5.01% K_3PO_4 ρ						
T (K)	ρ_0	A_1	A_2	A_3	σ	
288.15	0.8904	0.0112	0.0000	0.0000	$3.65 \cdot 10^{-4}$	
298.15	0.8769	0.1412	0.0000	0.0000	$3.56 \cdot 10^{-4}$	
308.15	0.8648	0.1349	0.0000	0.0000	$3.81 \cdot 10^{-4}$	
318.15	0.8690	0.1231	0.0000	0.0000	$3.09 \cdot 10^{-4}$	
7.58% K_3PO_4 ρ						
T (K)	ρ_0	A_1	A_2	A_3	σ	
288.15	0.9096	0.2071	0.0000	0.0000	$1.95 \cdot 10^{-4}$	
298.15	0.8997	0.2012	0.0000	0.0000	$1.56 \cdot 10^{-4}$	
308.15	0.8953	0.1939	0.0000	0.0000	$1.54 \cdot 10^{-4}$	
318.15	0.8771	0.1893	0.0000	0.0000	$1.54 \cdot 10^{-4}$	
10.26% K_3PO_4 ρ						
T (K)	ρ_0	A_1	A_2	A_3	σ	
288.15	0.8514	-0.5094	0.0000	0.0000	$4.26 \cdot 10^{-4}$	
298.15	0.9172	-0.4902	0.0000	0.0000	$4.43 \cdot 10^{-4}$	
308.15	0.9811	-0.3733	0.0000	0.0000	$3.53 \cdot 10^{-4}$	
318.15	1.0518	-0.3415	0.0000	0.0000	$3.37 \cdot 10^{-4}$	

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Anexo G

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G. GRÁFICAS

G.1 Sistemas estudiados

En la presente Tesis Doctoral se ha realizado el estudio las propiedades físicas de los siguientes sistemas:

Sistemas binarios orgánico – orgánico:

- ✓ Etanol – *n*-hexano
- ✓ Etanol – *n*-heptano
- ✓ Etanol – *n*-octano
- ✓ Etanol – *n*-nonano
- ✓ *n*-hexano – *n*-heptano
- ✓ *n*-hexano – *n*-octano
- ✓ *n*-hexano – *n*-nonano

Sistemas binarios orgánico – acuoso:

- ✓ Etanol – agua

Sistemas binarios acuoso – acuoso:

- ✓ Tween 20 – agua
- ✓ Tritón X-102 – agua
- ✓ Na₂SO₄ – agua
- ✓ Na₂S₂O₃ – agua
- ✓ K₂HPO₄ – agua
- ✓ K₃PO₄ – agua

Sistemas ternarios orgánico – orgánico:

- ✓ Etanol – *n*-hexano – *n*-heptano
- ✓ Etanol – *n*-hexano – *n*-octano
- ✓ Etanol – *n*-hexano – *n*-nonano

Sistemas ternarios orgánico – acuoso:

- ✓ Etanol – *n*-hexano – agua
- ✓ Etanol – *n*-heptano – agua
- ✓ Etanol – *n*-octano – agua
- ✓ Etanol – *n*-nonano – agua

Sistemas ternarios acuoso – acuoso:

- ✓ Tween 20 – Na_2SO_4 – agua
- ✓ Tween 20 – $\text{Na}_2\text{S}_2\text{O}_3$ – agua
- ✓ Tween 20 – K_2HPO_4 – agua
- ✓ Tween 20 – K_3PO_4 – agua
- ✓ Tritón X-102 – Na_2SO_4 – agua
- ✓ Tritón X-102 – $\text{Na}_2\text{S}_2\text{O}_3$ – agua
- ✓ Tritón X-102 – K_2HPO_4 – agua
- ✓ Tritón X-102 – K_3PO_4 – agua

G.1.1. Gráficas sistemas binarios orgánico – orgánico

G.1.1.1. Etanol – *n*-hexano

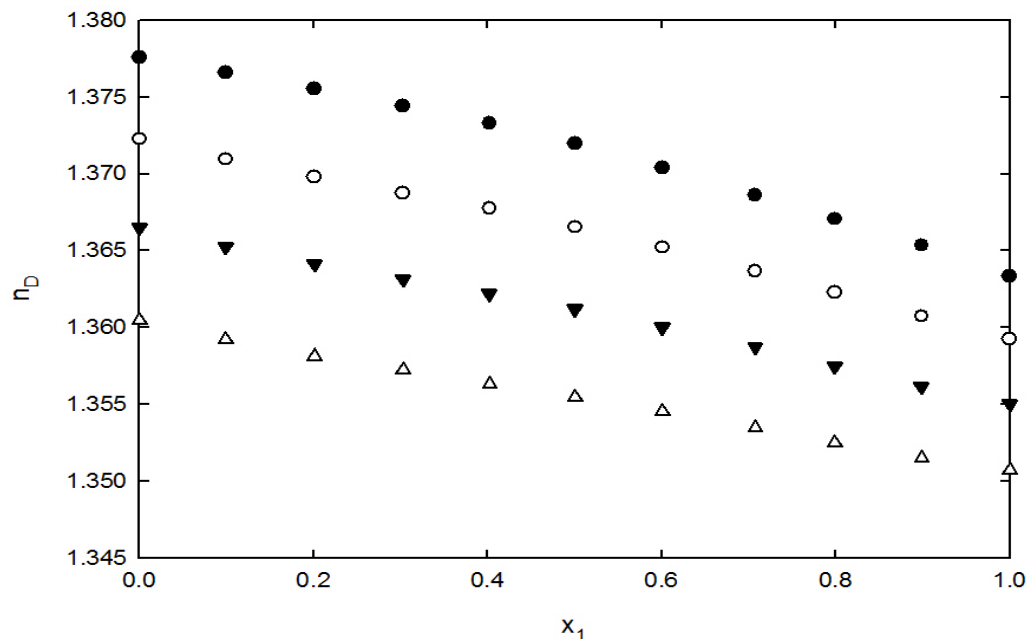


Figura G-1. Índice de refracción para el sistema binario Etanol (1) – *n*-hexano (2) a, ●, T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

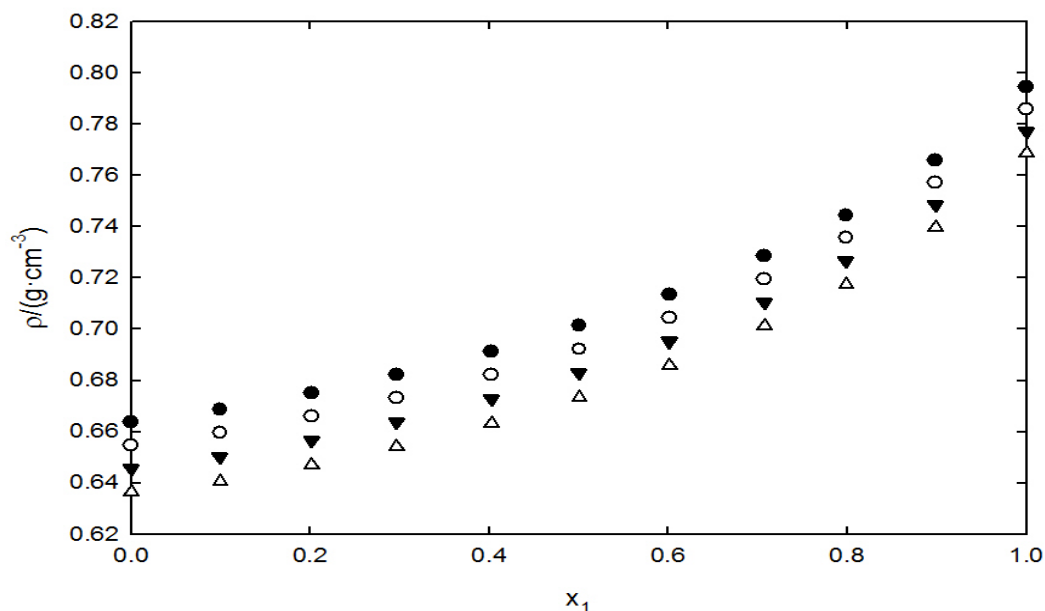


Figura G-2. Densidad para el sistema binario Etanol (1) – *n*-hexano (2) a, ●, T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

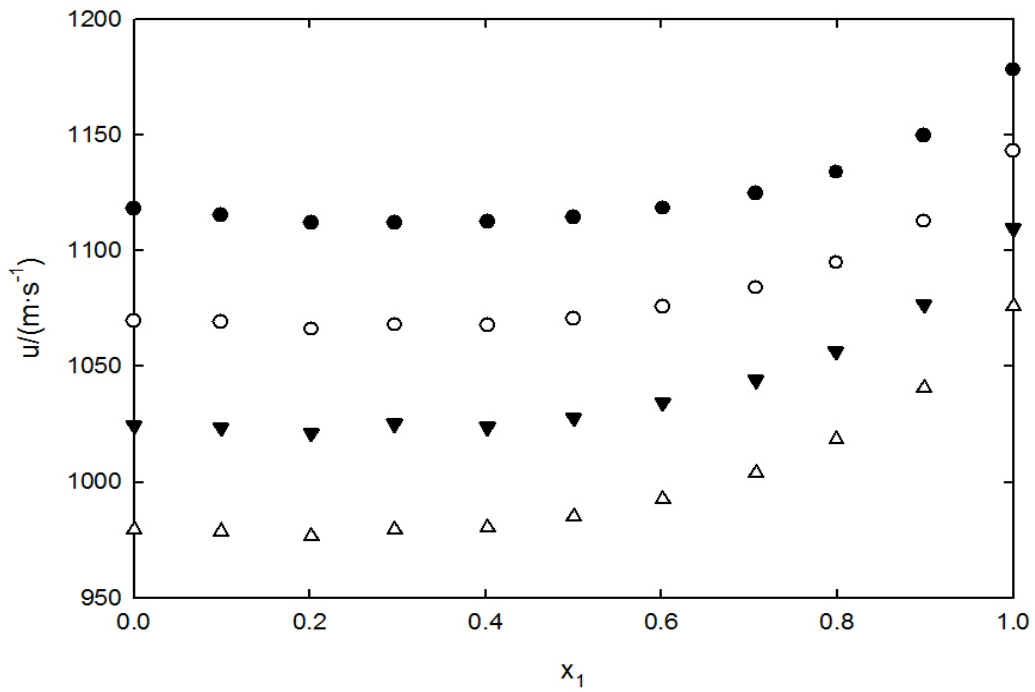


Figura G-3. Velocidad del sonido para el sistema binario Etanol (1) – *n*-hexano (2) a, ● $T=288.15$ K; ○, $T = 298.15$ K; ▼, $T = 308.15$ K; △, $T = 318.15$ K

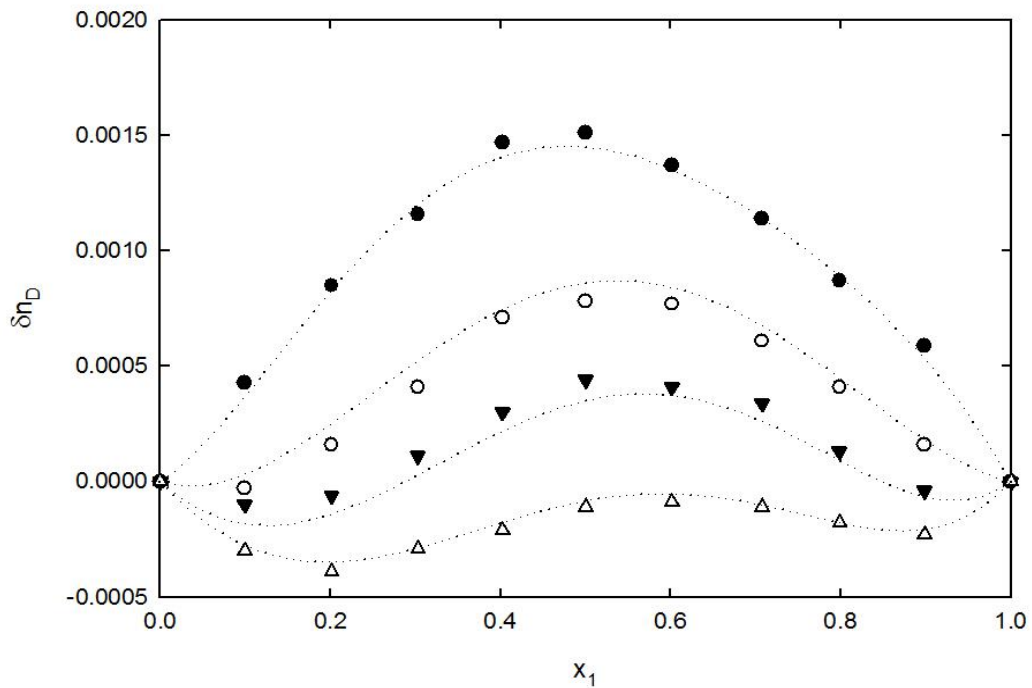


Figura G-4. Desviación del índice de refracción para el sistema binario Etanol (1) – *n*-hexano (2) a, ● $T=288.15$ K; ○, $T = 298.15$ K; ▼, $T = 308.15$ K; △, $T = 318.15$ K. La línea sólida corresponde al modelo de Redlich-Kister.

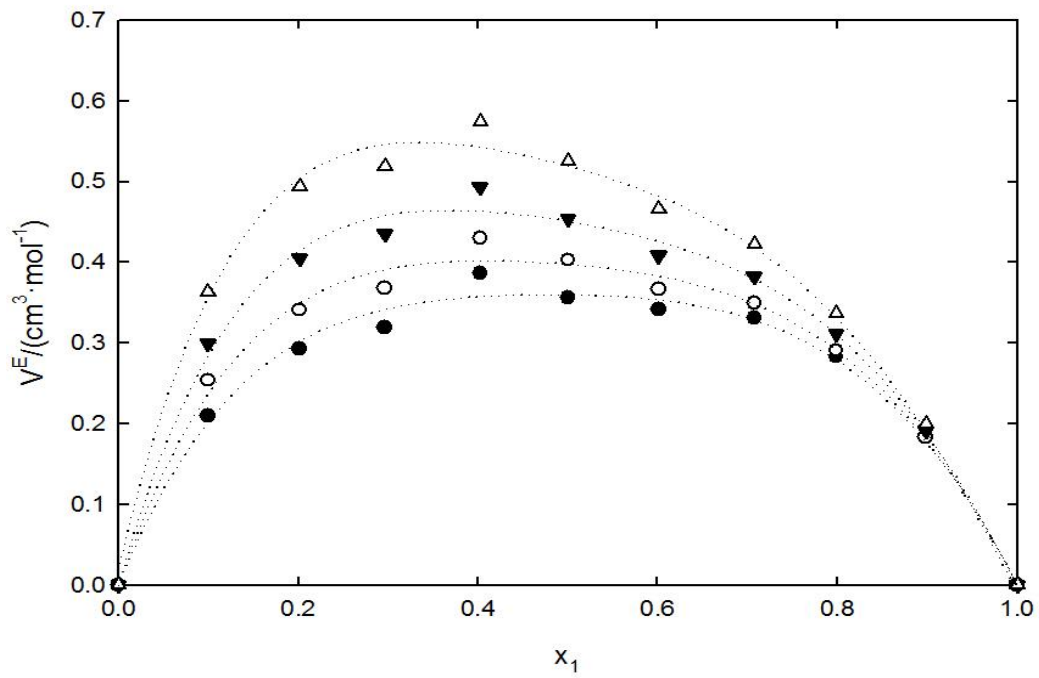


Figura G-5. Volumen de exceso para el sistema binario Etanol (1) – *n*-hexano (2) a, ●, T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K. La línea sólida corresponde al modelo de Redlich-Kister

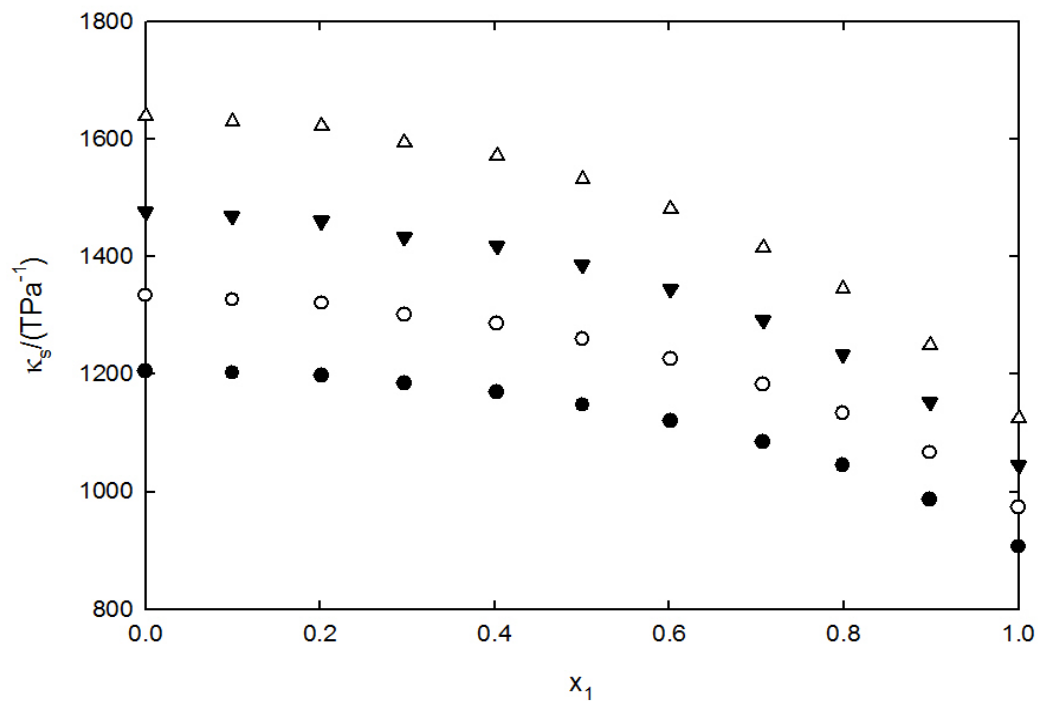


Figura G-6. Compresibilidad isoentrópica para el sistema binario Etanol (1) – *n*-hexano (2) a, ●, T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

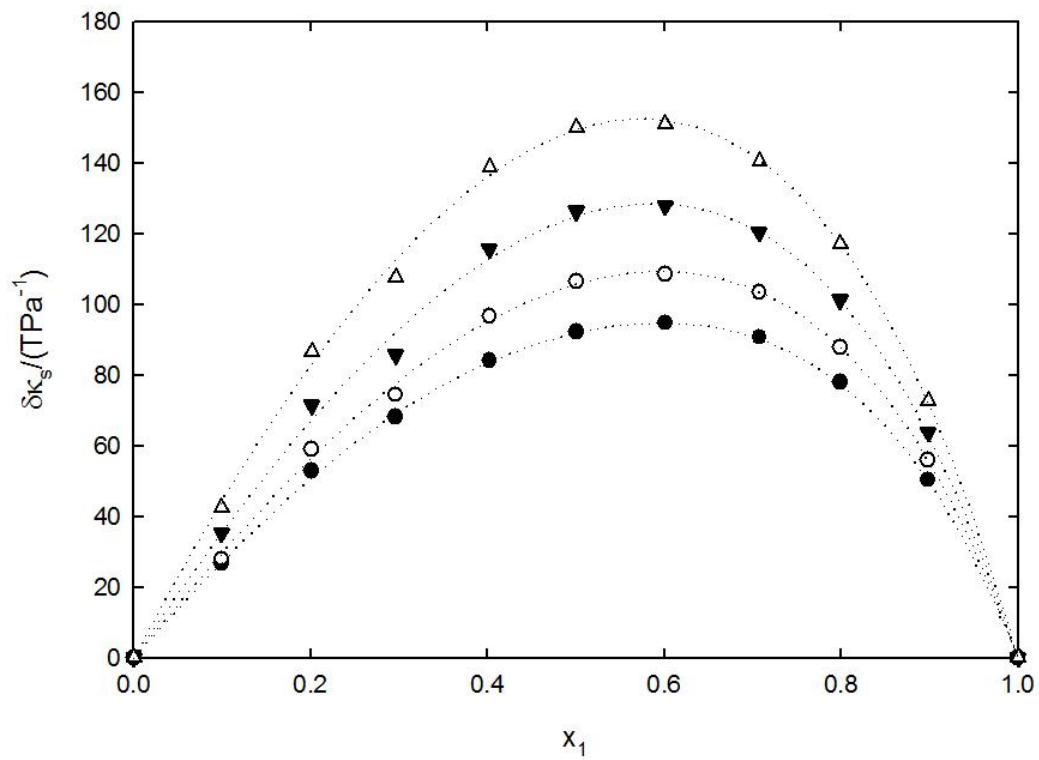


Figura G-7. Desviación de la compresibilidad isoentrópica el sistema binario Etanol (1) – *n*-hexano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K. La línea sólida corresponde al modelo de Redlich-Kister

G.1.1.2. Etanol – *n*-heptano

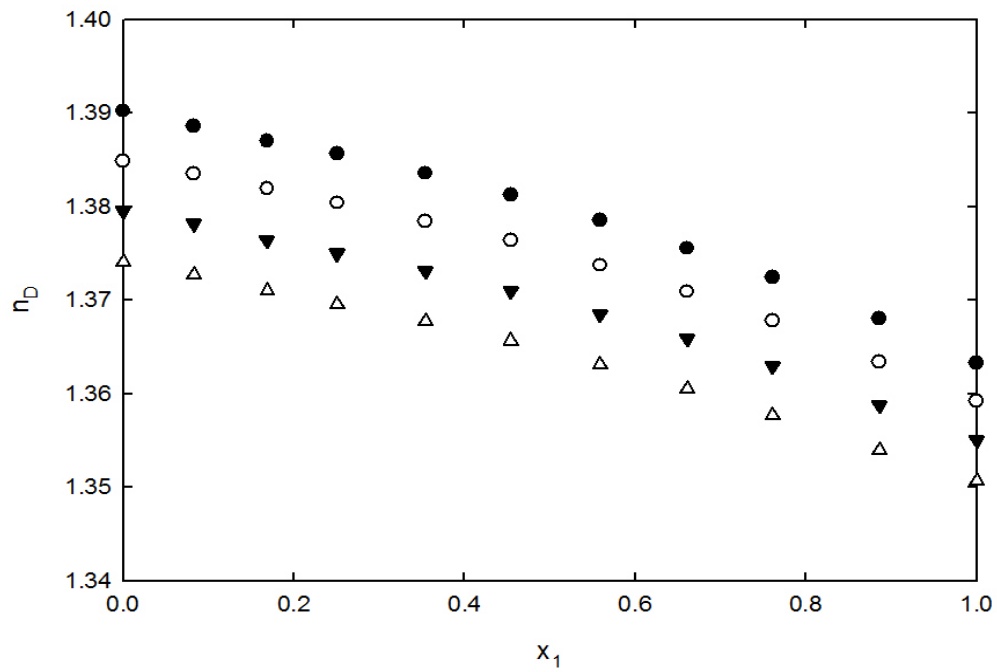


Figura G-8. Índice de refracción para el sistema binario Etanol (1) – *n*-heptano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

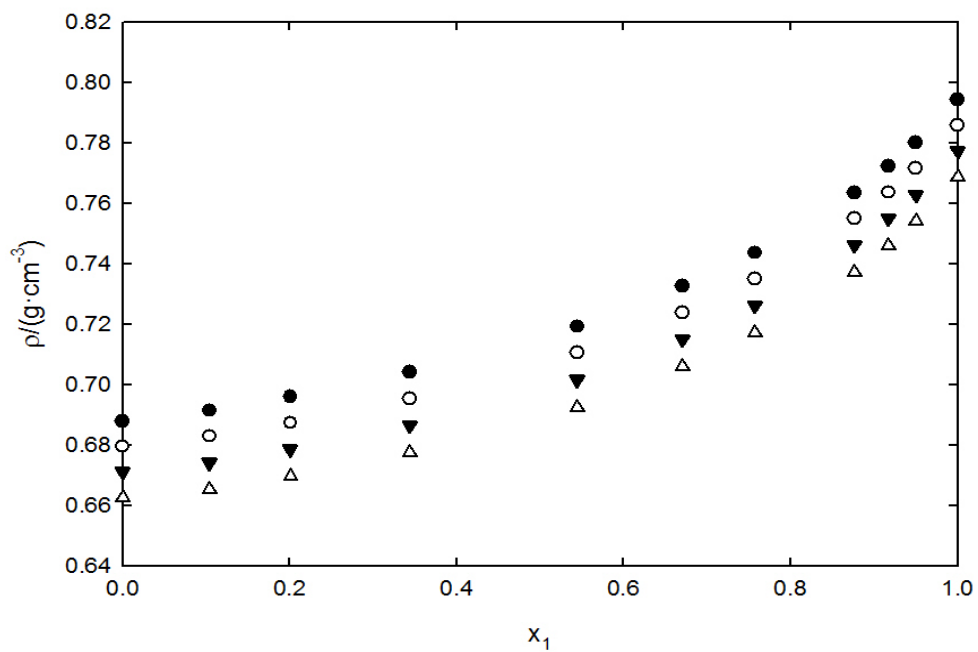


Figura G-9. Densidad para el sistema binario Etanol (1) – *n*-heptano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

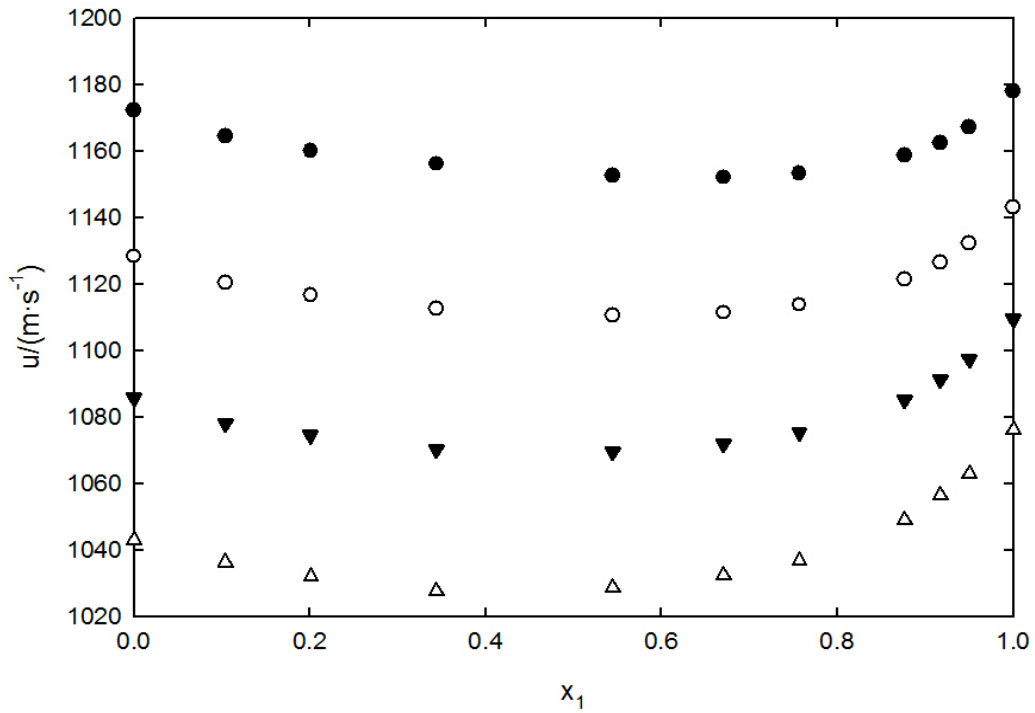


Figura G-10. Velocidad del sonido para el sistema binario Etanol (1) – *n*-heptano (2) a, \bullet , $T=288.15\text{ K}$; \circ , $T=298.15\text{ K}$; \blacktriangledown , $T=308.15\text{ K}$; \triangle , $T=318.15\text{ K}$

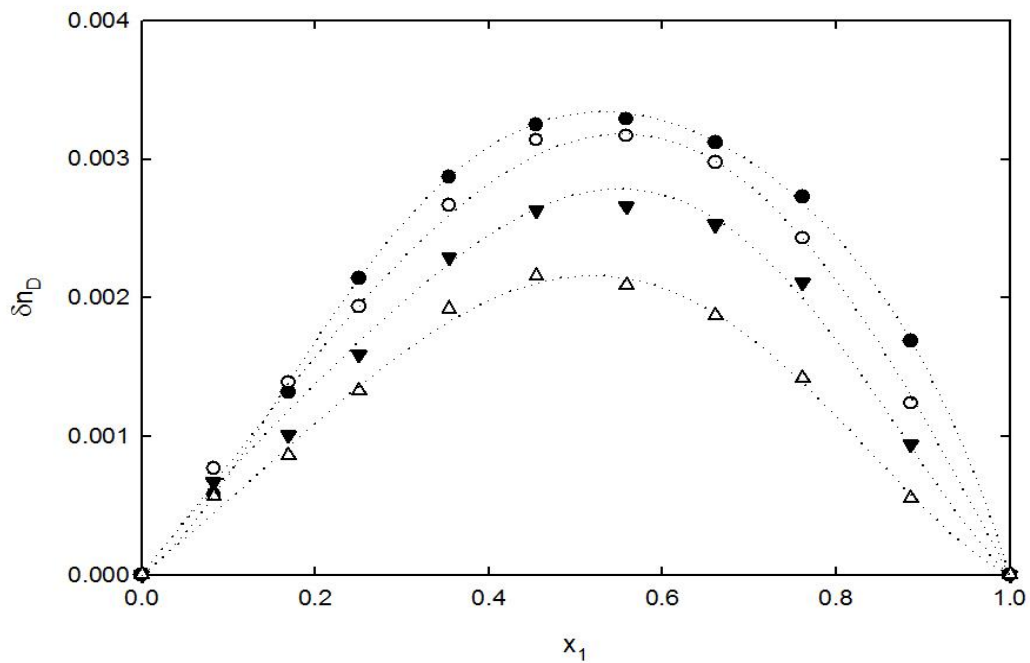


Figura G-11. Desviación del índice de refracción para el sistema binario Etanol (1) – *n*-heptano (2) a, \bullet , $T=288.15\text{ K}$; \circ , $T=298.15\text{ K}$; \blacktriangledown , $T=308.15\text{ K}$; \triangle , $T=318.15\text{ K}$. La línea sólida corresponde al modelo de Redlich-Kister

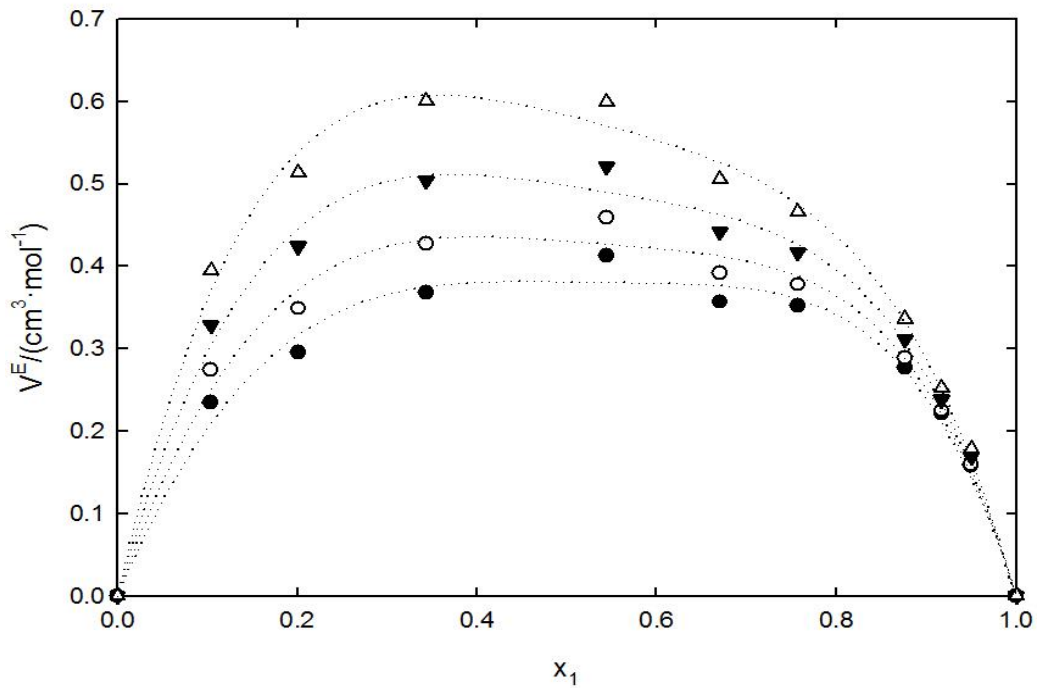


Figura G-12. Volumen de exceso para el sistema binario Etanol (1) – *n*-heptano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K. La línea solida corresponde al modelo de Redlich-Kister.

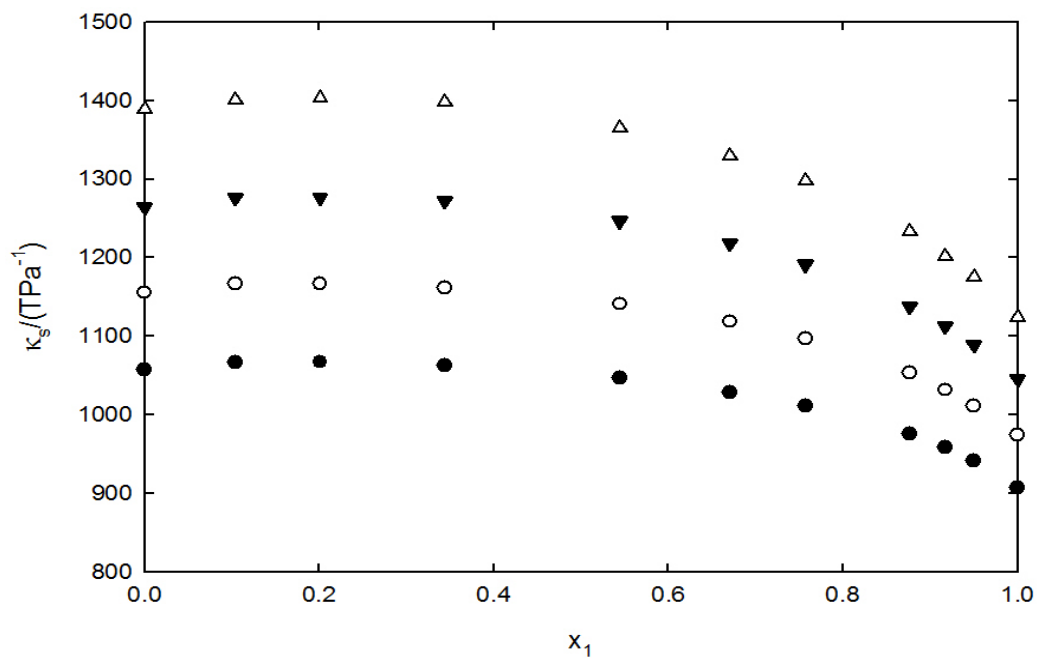


Figura G-13. Compresibilidad isoentrópica para el sistema binario Etanol (1) – *n*-heptano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

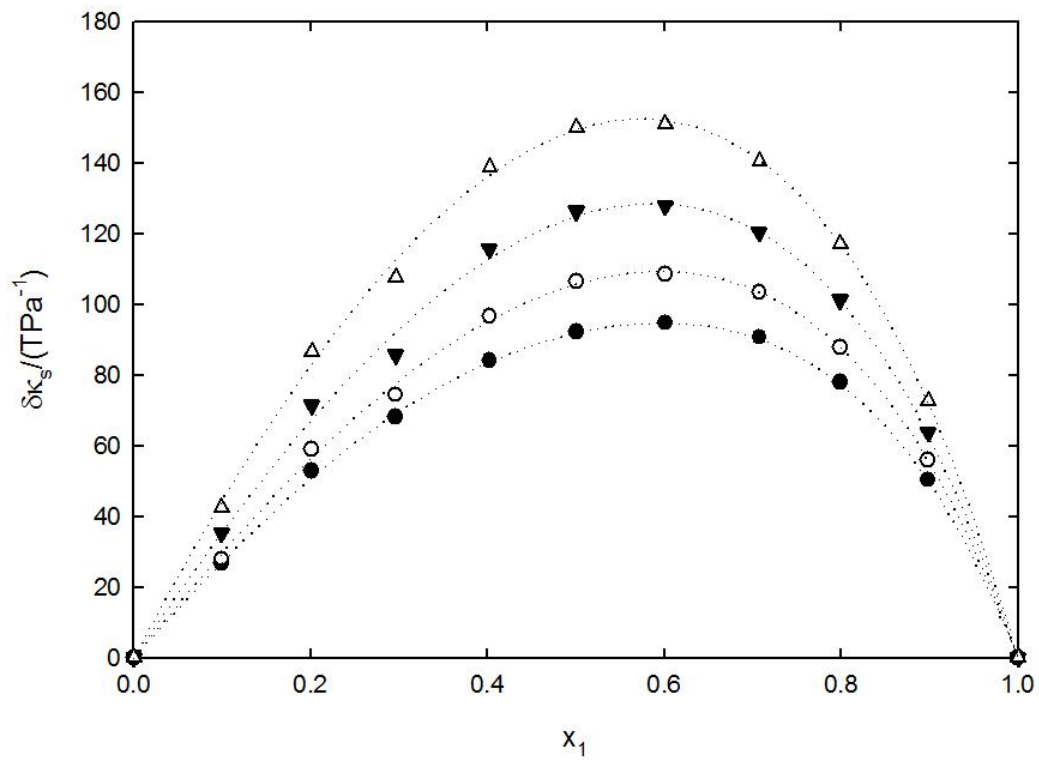


Figura G-14. Desviación de la compresibilidad isoentrópica el sistema binario Etanol (1) – *n*-heptano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K. La línea sólida corresponde al modelo de Redlich-Kister

G.1.1.3. Etanol – *n*-octano

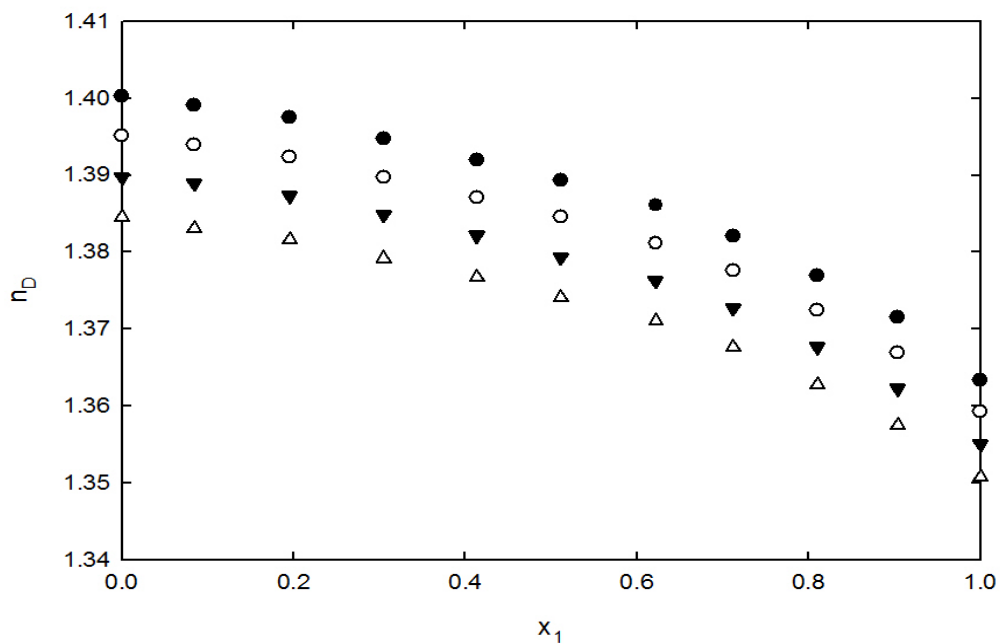


Figura G-15. Índice de refracción para el sistema binario Etanol (1) – *n*-octano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K

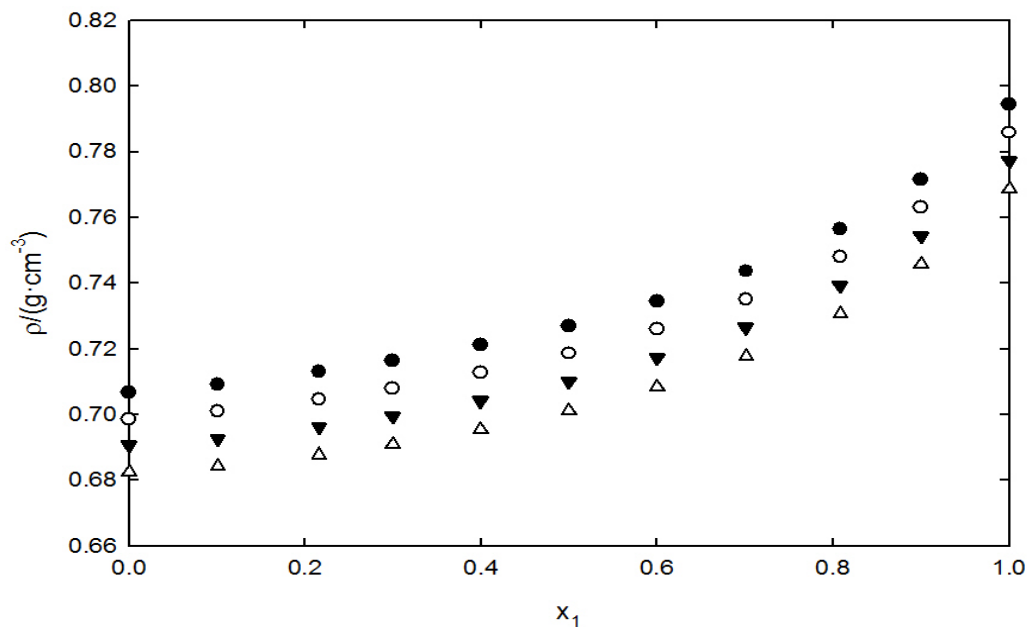


Figura G-16. Densidad para el sistema binario Etanol (1) – *n*-octano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K

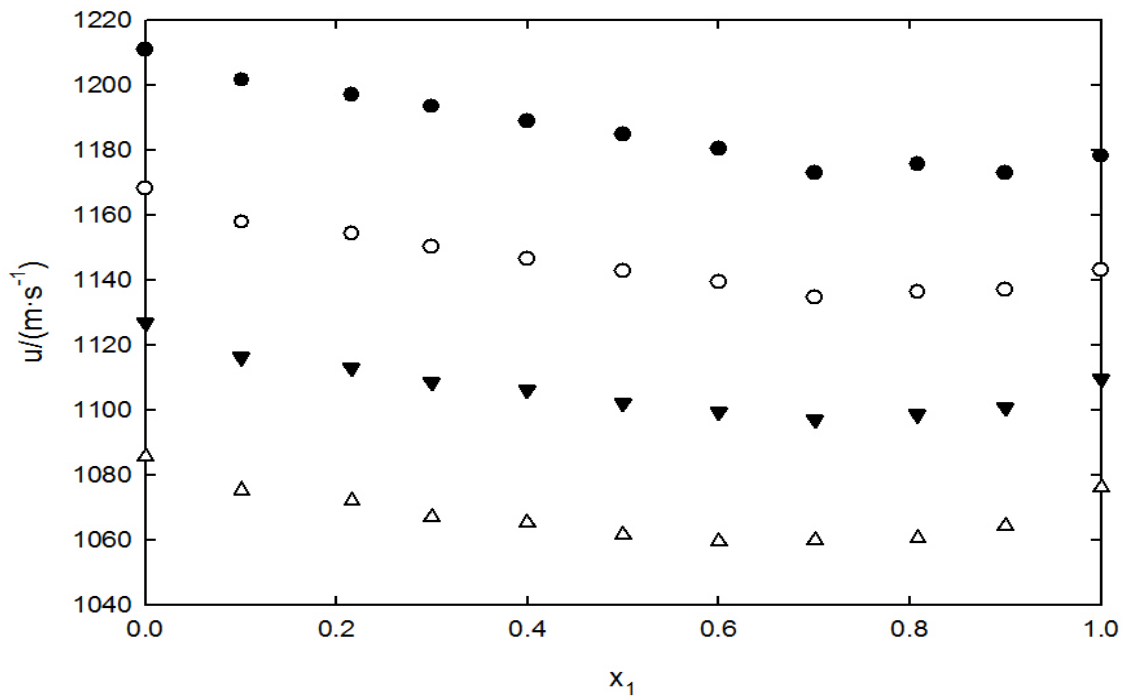


Figura G-17. Velocidad del sonido para el sistema binario Etanol (1) – *n*-octano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K

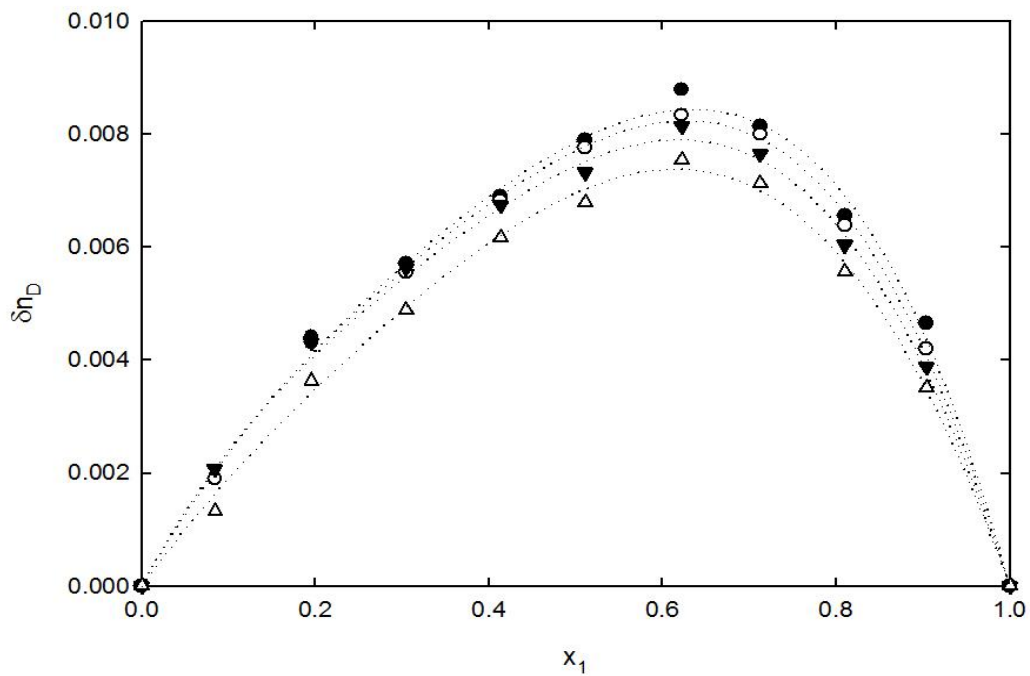


Figura G-18. Desviación del índice de refracción para el sistema binario Etanol (1) – *n*-octano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K. La línea sólida corresponde al modelo de Redlich-Kister.

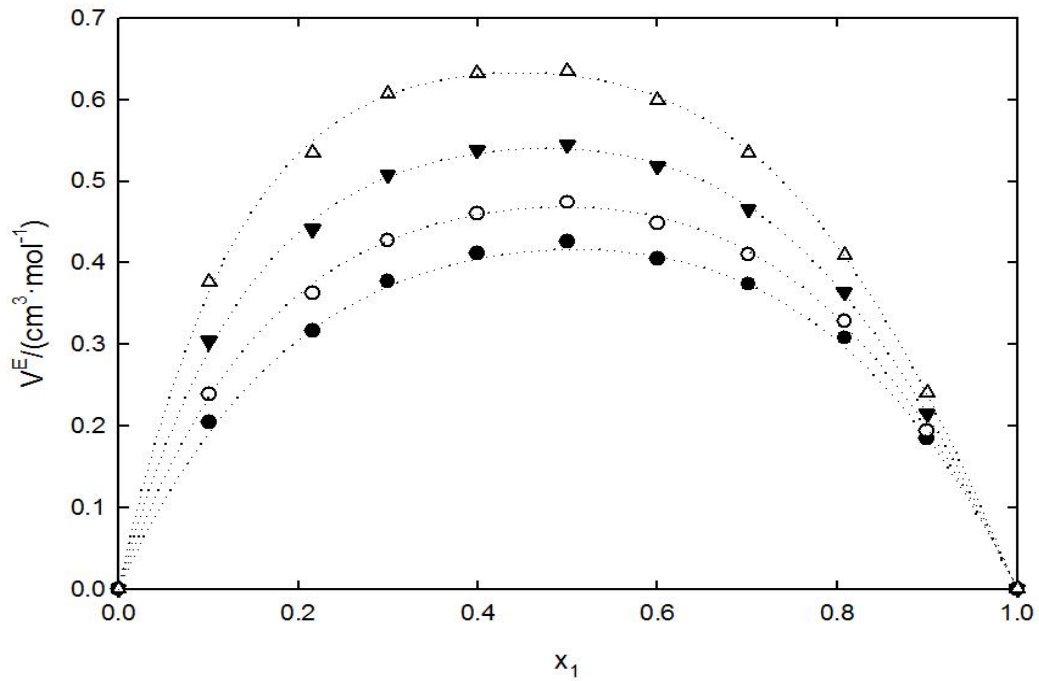


Figura G-19. Volumen de exceso para el sistema binario Etanol (1) – *n*-octano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K. La línea sólida corresponde al modelo de Redlich-Kister.

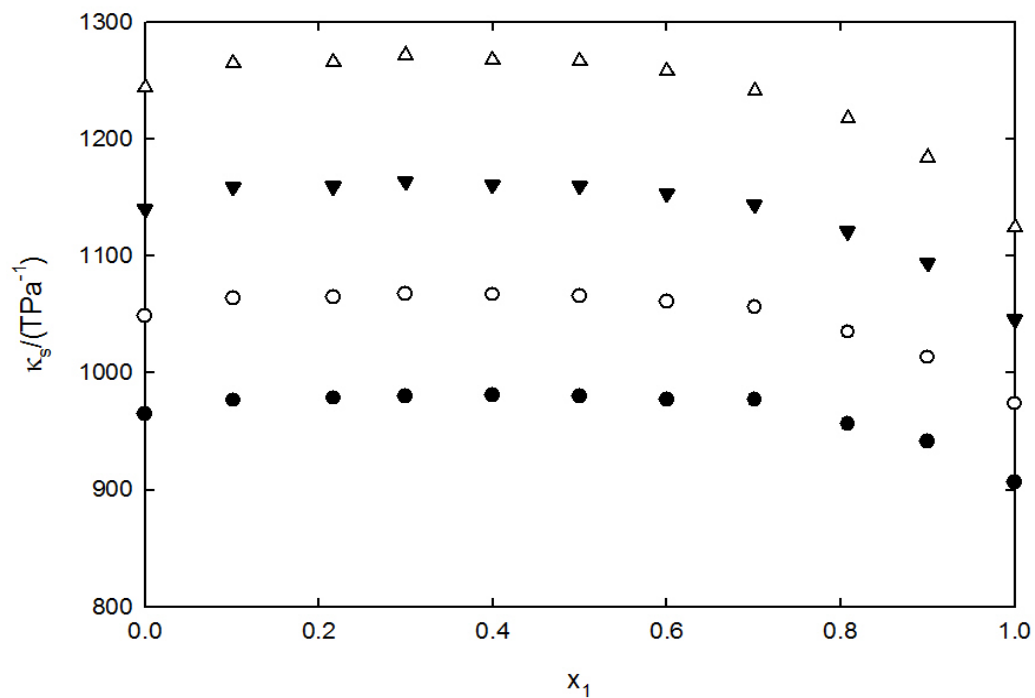


Figura G-20. Compresibilidad isoentrópica para el sistema binario Etanol (1) – *n*-octano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K

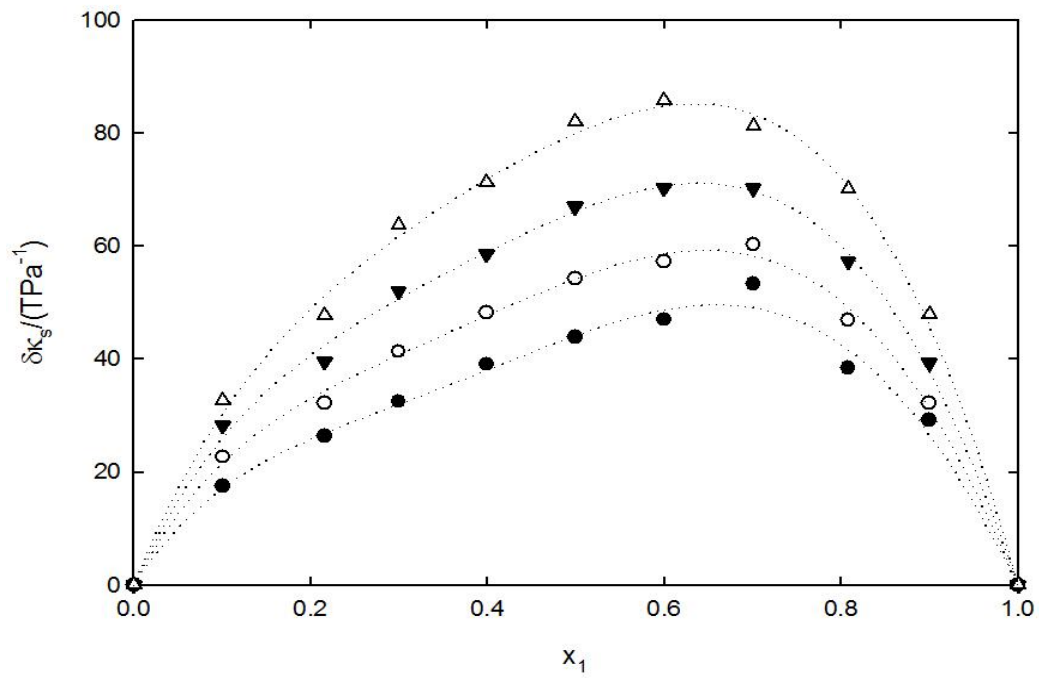


Figura G-21. Desviación de la compresibilidad isoentrópica el sistema binario Etanol (1) – *n*-octano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K. La línea solida corresponde al modelo de Redlich-Kister.

G.1.1.4. Etanol – *n*-nonano

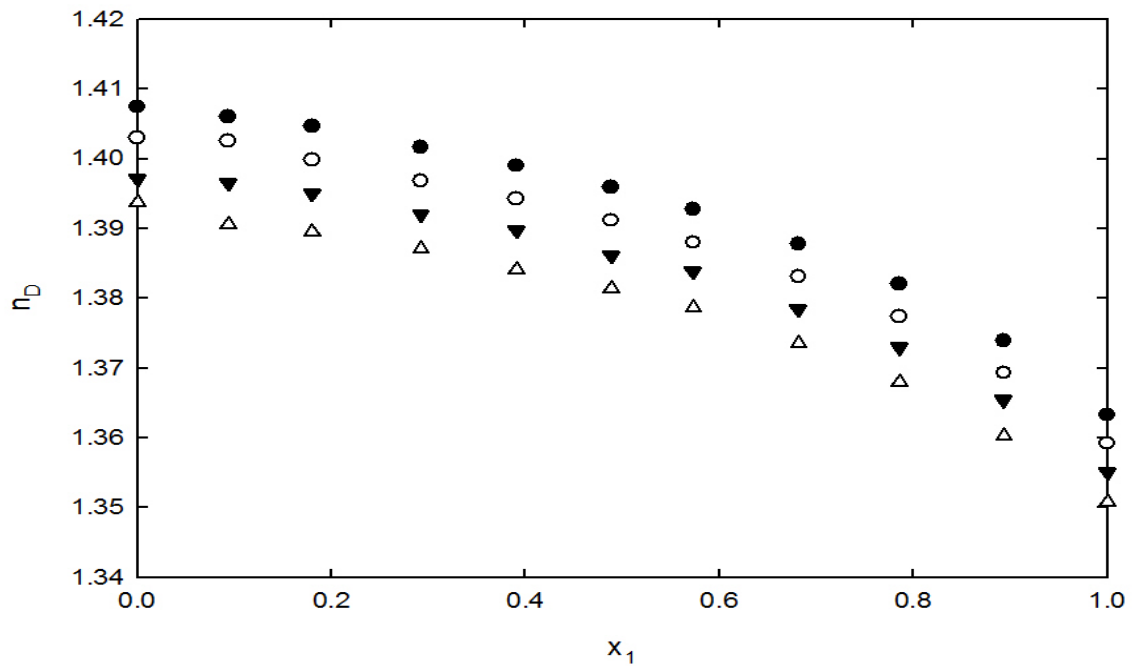


Figura G-22. Índice de refracción para el sistema binario Etanol (1) – *n*-nonano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

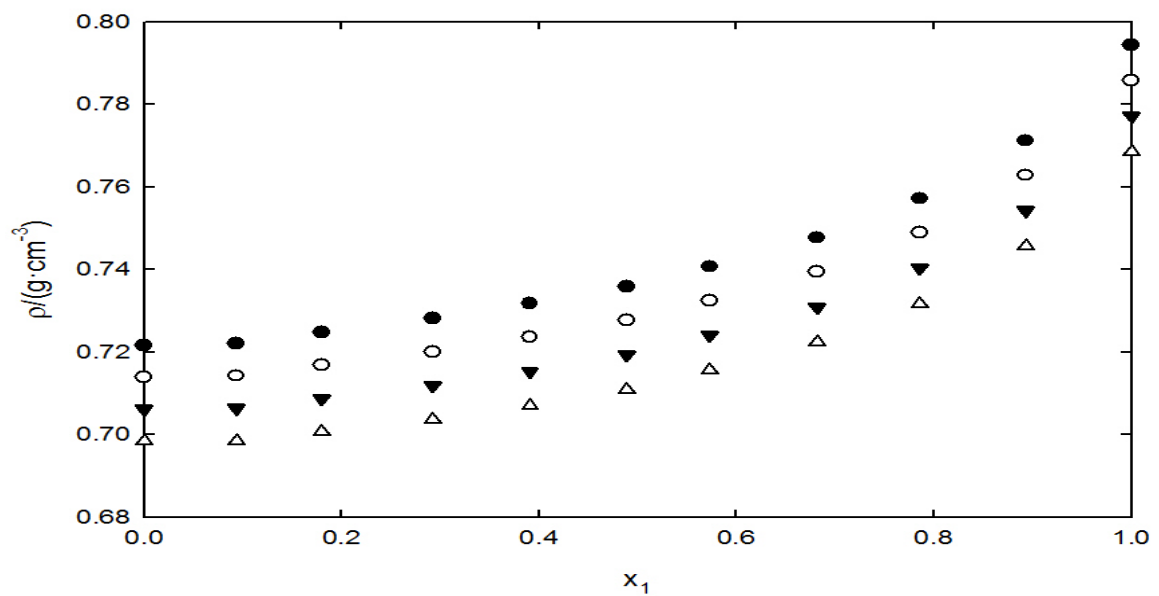


Figura G-23. Densidad para el sistema binario Etanol (1) – *n*-nonano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

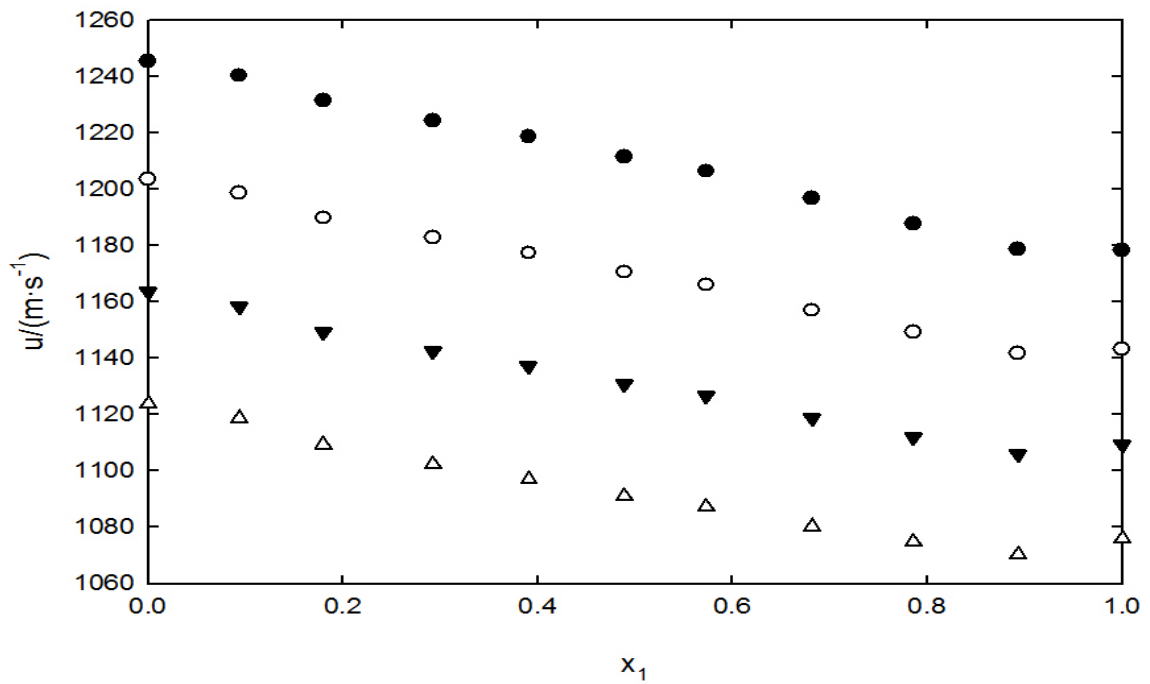


Figura G-24. Velocidad del sonido para el sistema binario Etanol (1) – *n*-nonano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

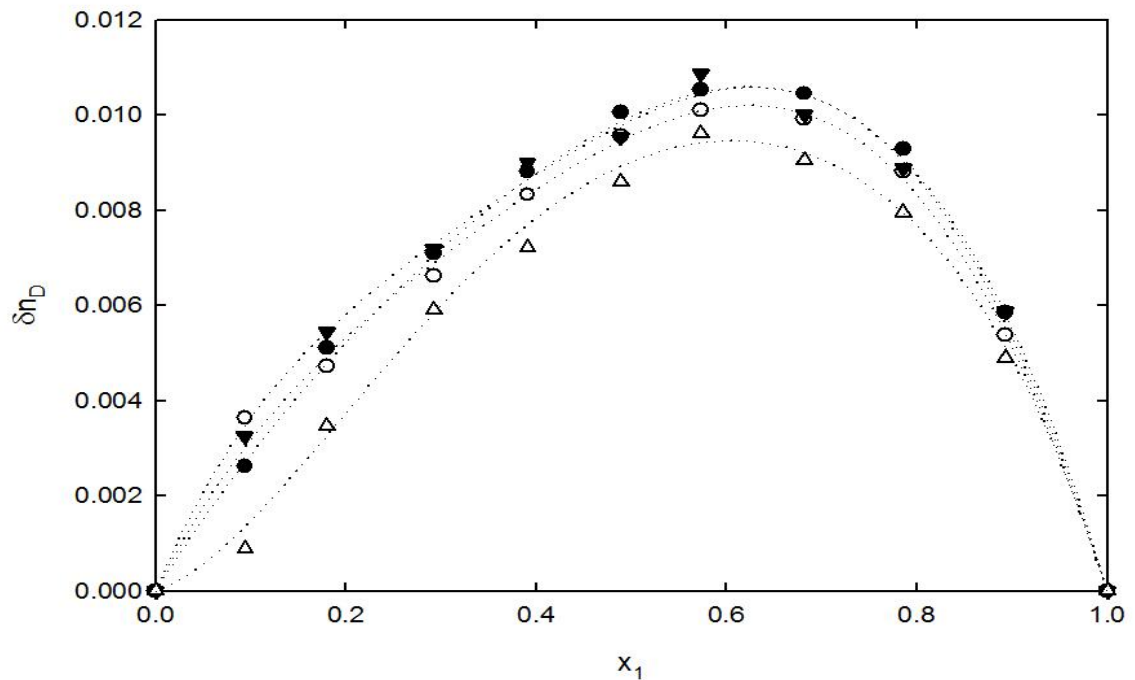


Figura G-25. Desviación del índice de refracción para el sistema binario Etanol (1) – *n*-nonano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K. La línea sólida corresponde al modelo de Redlich-Kister.

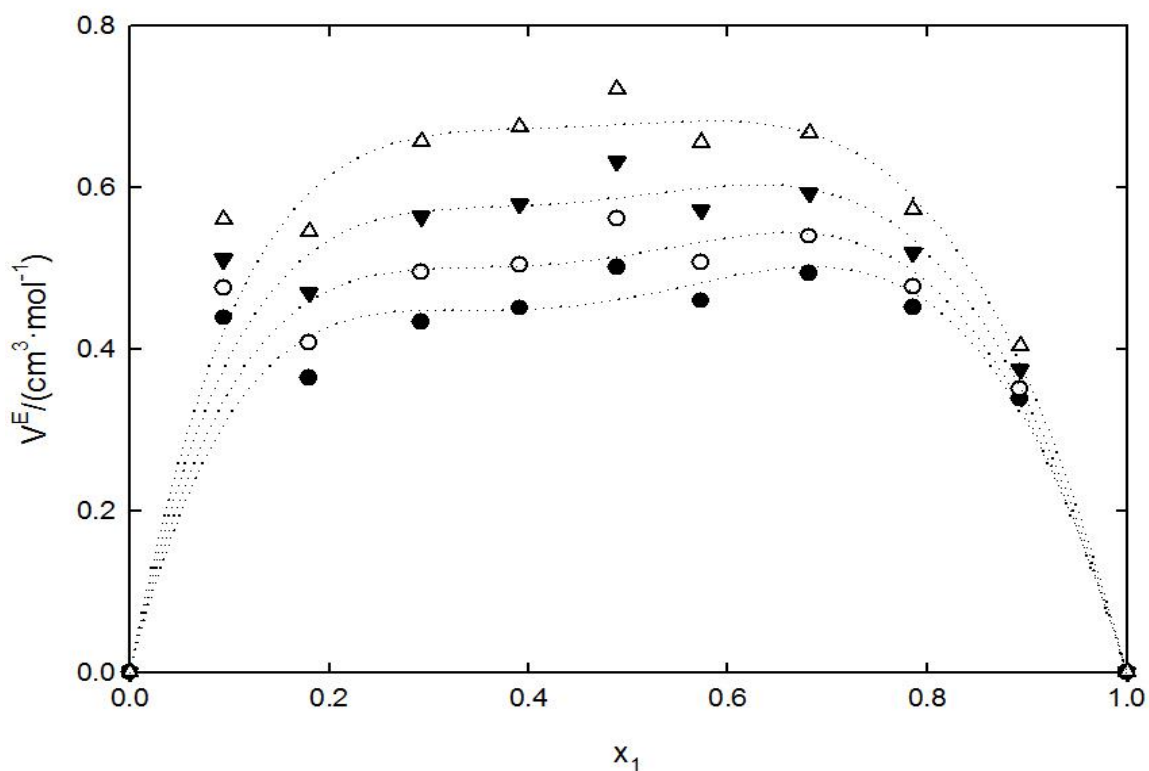


Figura G-26. Volumen de exceso para el sistema binario Etanol (1) – *n*-nonano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K. La línea sólida corresponde al modelo de Redlich-Kister.

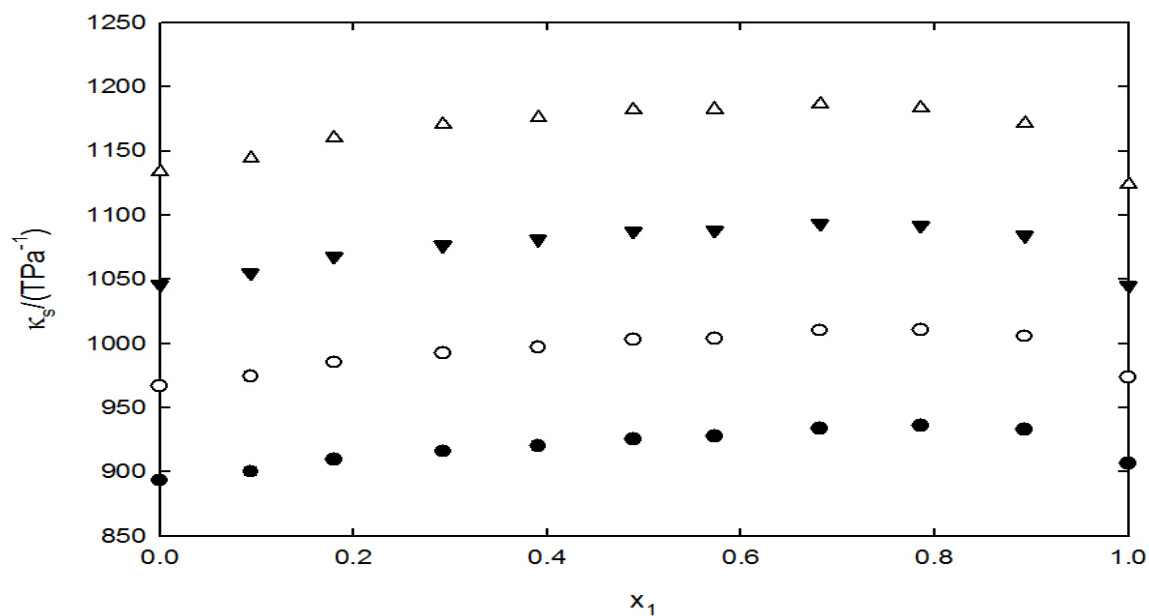


Figura G-27. Compresibilidad isoentrópica para el sistema binario Etanol (1) – *n*-nonano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K.

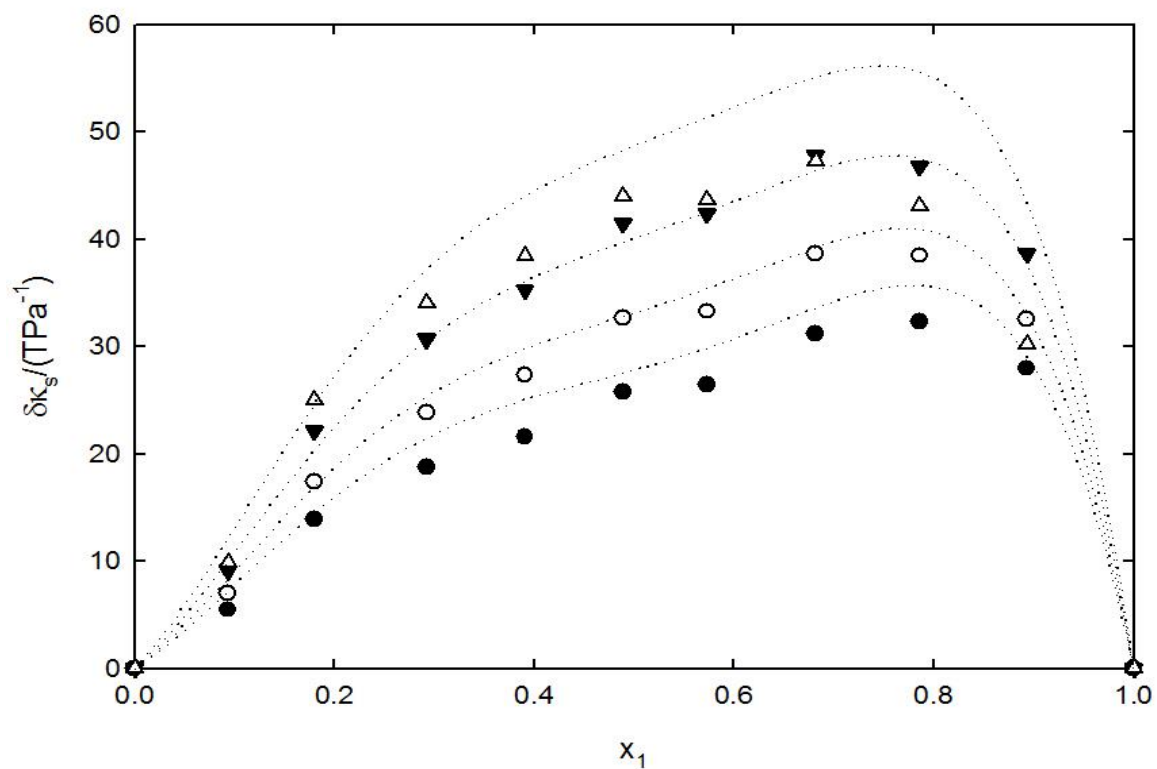


Figura G-28. Desviación de la compresibilidad isoentrópica el sistema binario Etanol (1) – *n*-nonano (2) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; Δ, $T = 318.15 \text{ K}$. La línea solida corresponde al modelo de Redlich-Kister.

G.1.1.5. *n*-hexano – *n*-heptano

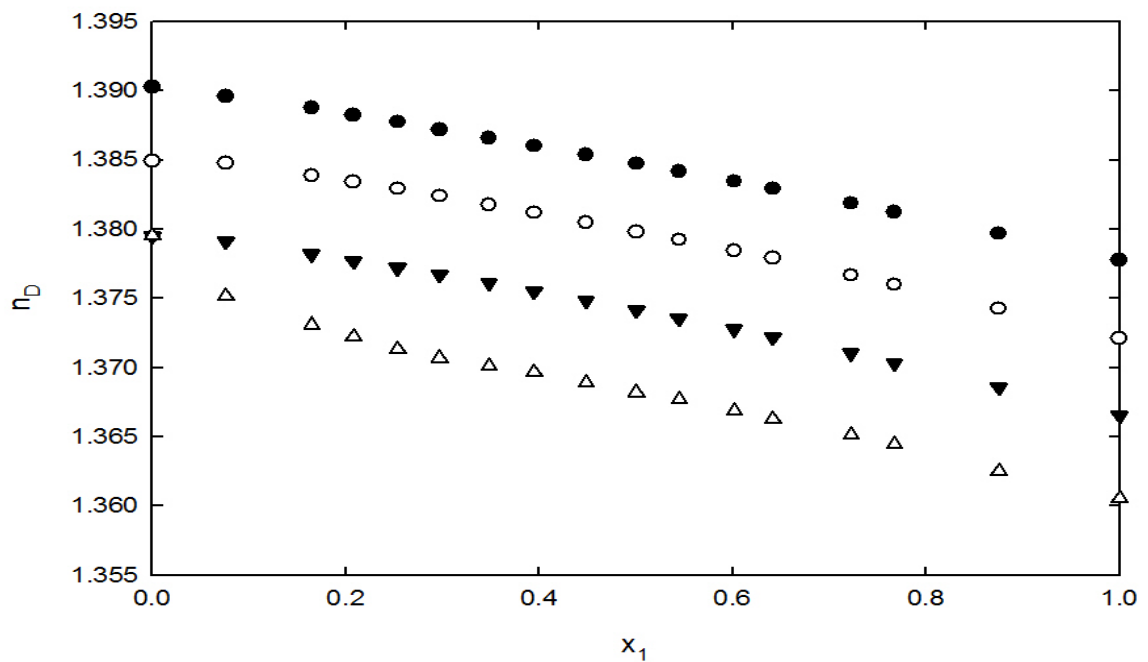


Figura G-29. Índice de refracción para el sistema binario *n*-hexano (1) – *n*-heptano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K

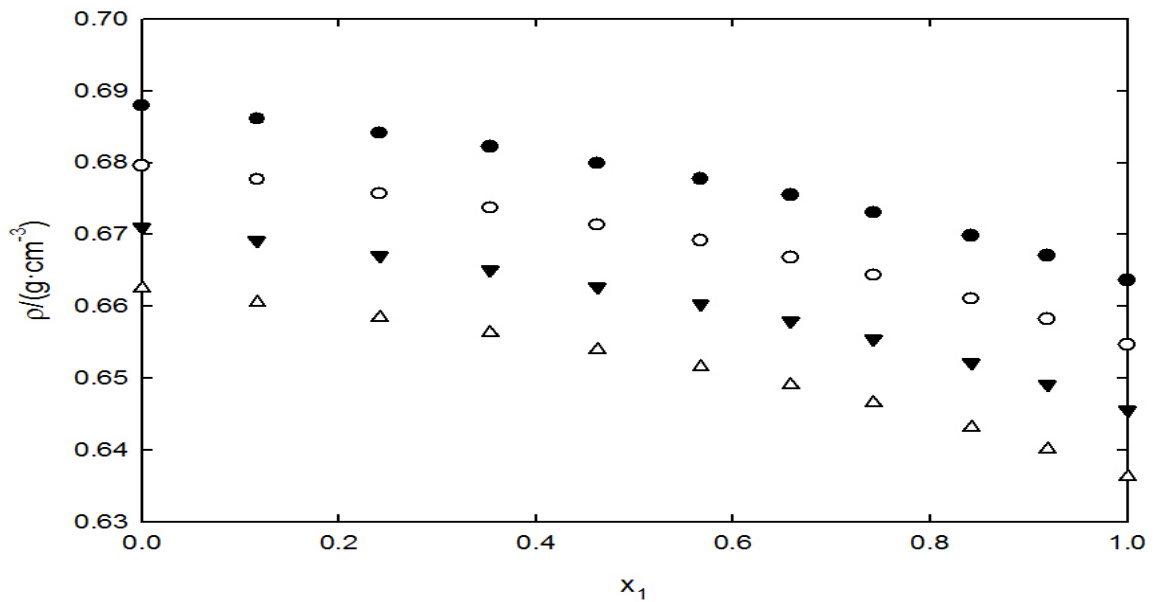


Figura G-30. Densidad para el sistema binario *n*-hexano (1) – *n*-heptano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K

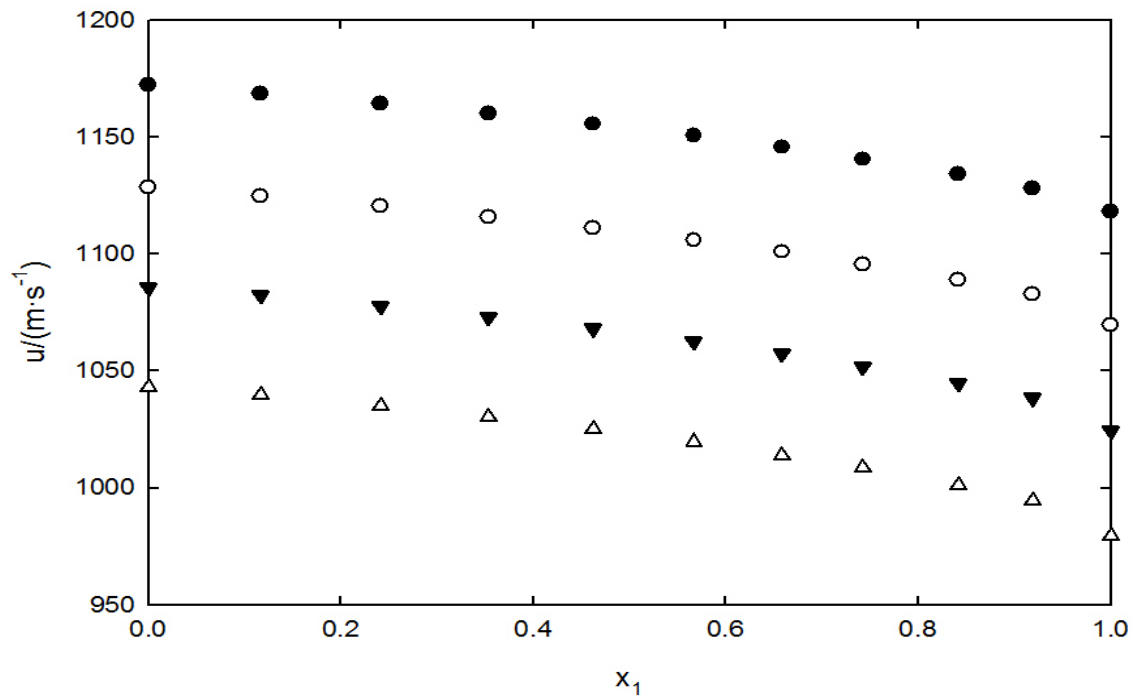


Figura G-31. Velocidad del sonido para el sistema binario *n*-hexano (1) – *n*-heptano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

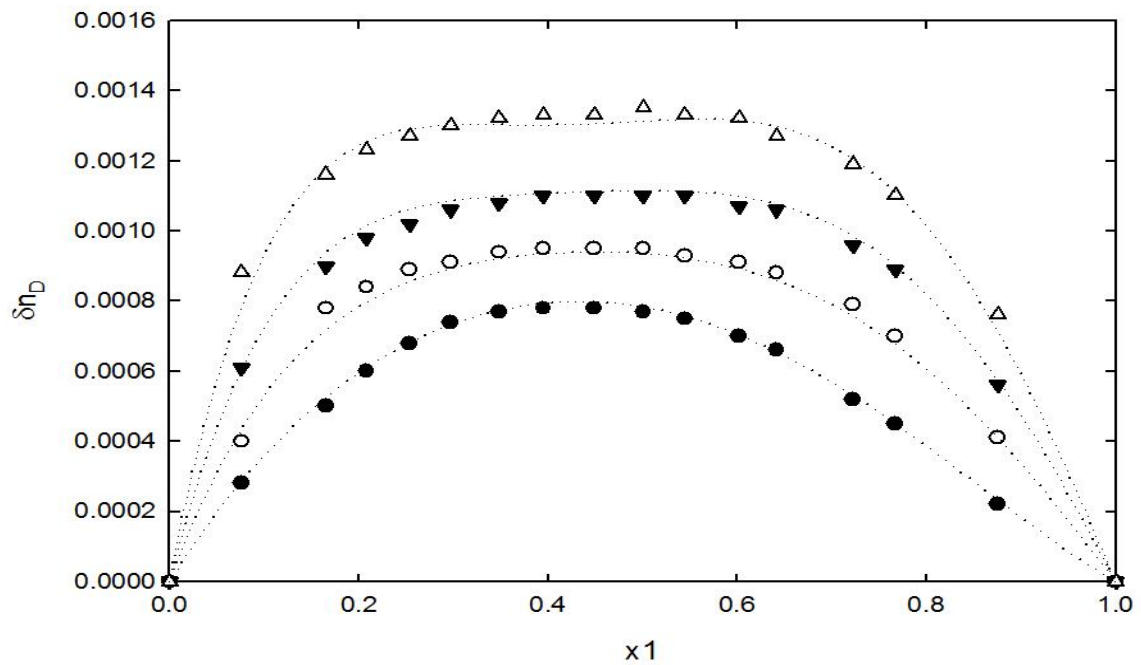


Figura G-32. Desviación del índice de refracción para el sistema binario *n*-hexano (1) – *n*-heptano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K. La línea sólida corresponde al modelo de Redlich-Kister.

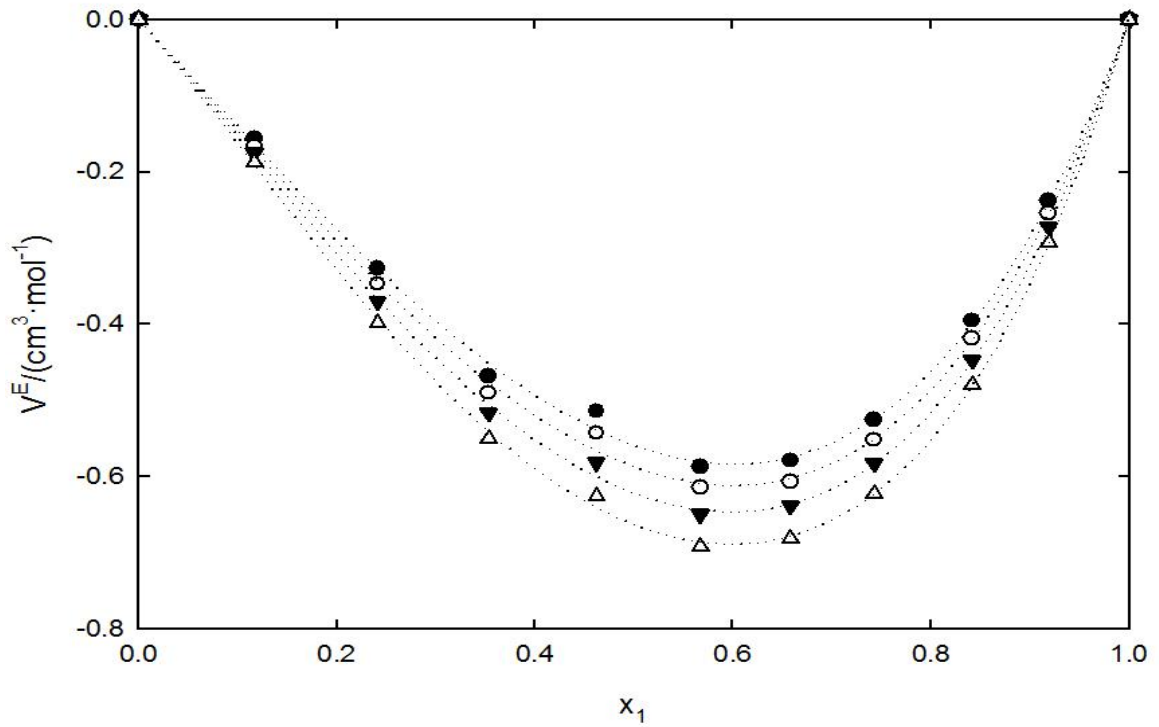


Figura G-33. Volumen de exceso para el sistema binario *n*-hexano (1) – *n*-heptano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K. La línea sólida corresponde al modelo de Redlich-Kister.

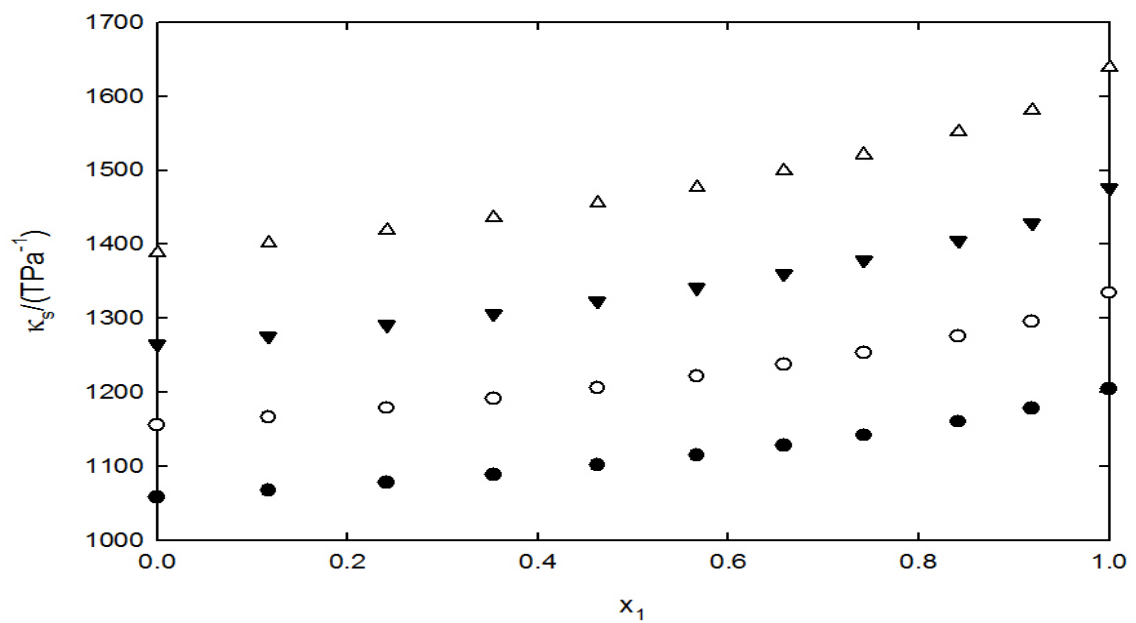


Figura G-34. Compresibilidad isoentrópica para el sistema binario *n*-hexano (1) – *n*-heptano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K

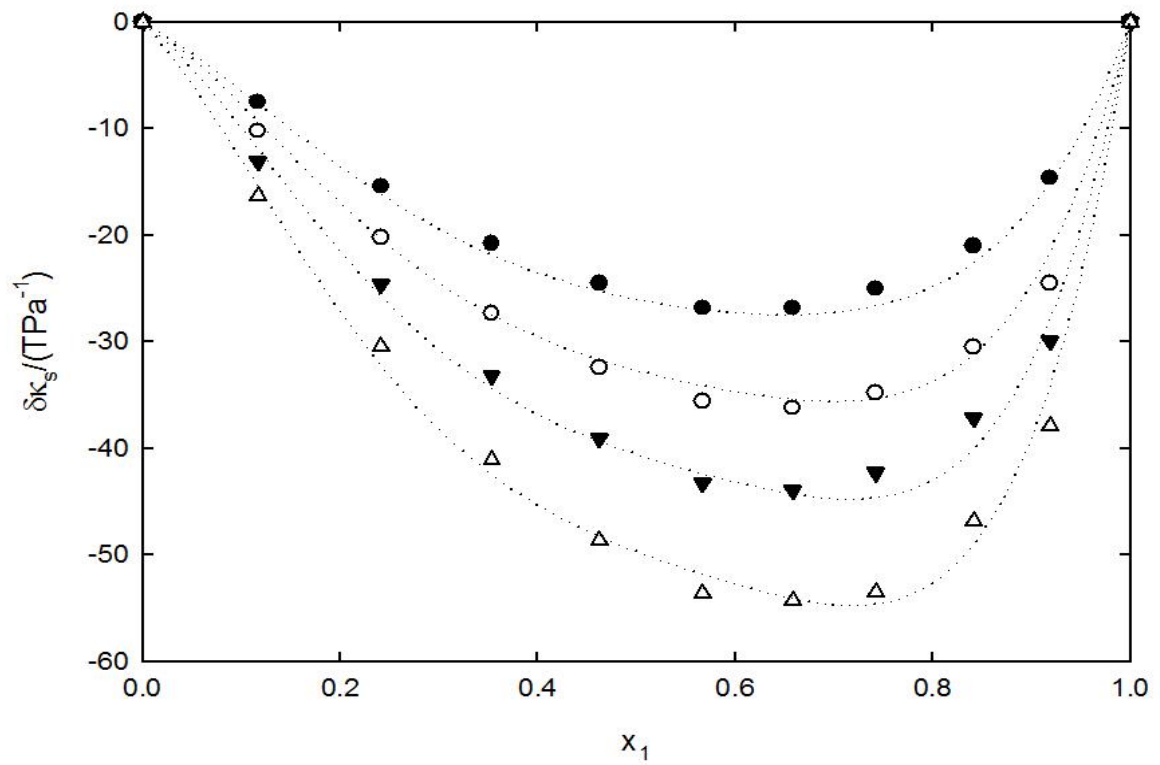


Figura G-35. Desviación de la compresibilidad isoentrópica el sistema binario *n*-hexano (1) – *n*-heptano (2), \bullet , $T=288.15$ K; \circ , $T = 298.15$ K; \blacktriangledown , $T = 308.15$ K; Δ , $T = 318.15$ K. La línea sólida corresponde al modelo de Redlich-Kister.

G.1.1.6. *n*-hexano – *n*-octano

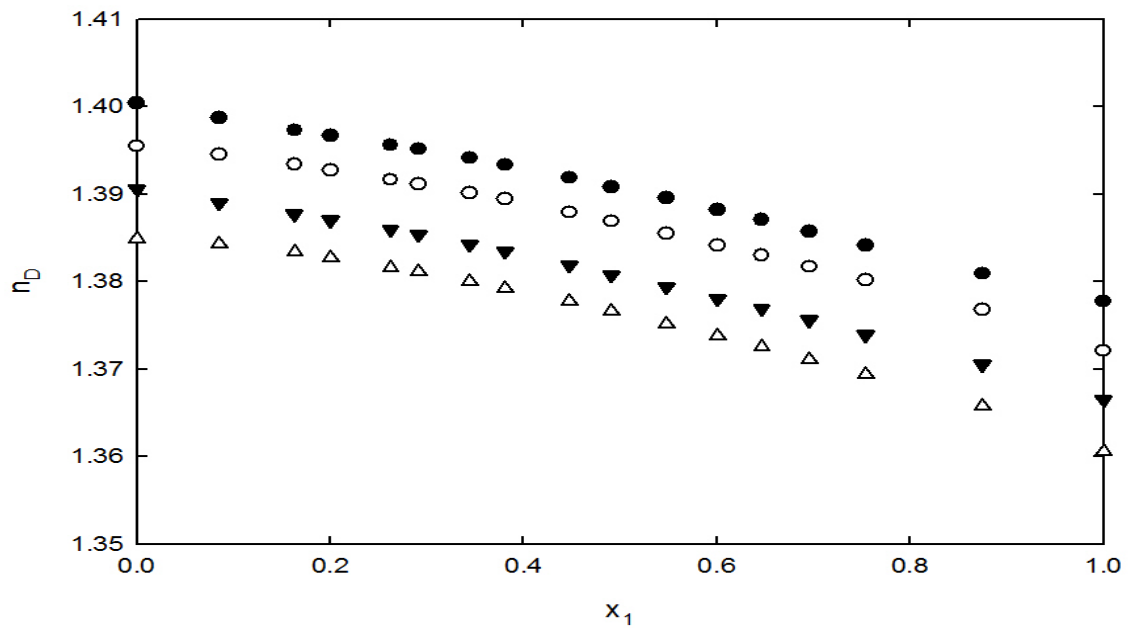


Figura G-36. Índice de refracción para el sistema binario *n*-hexano (1) – *n*-octano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

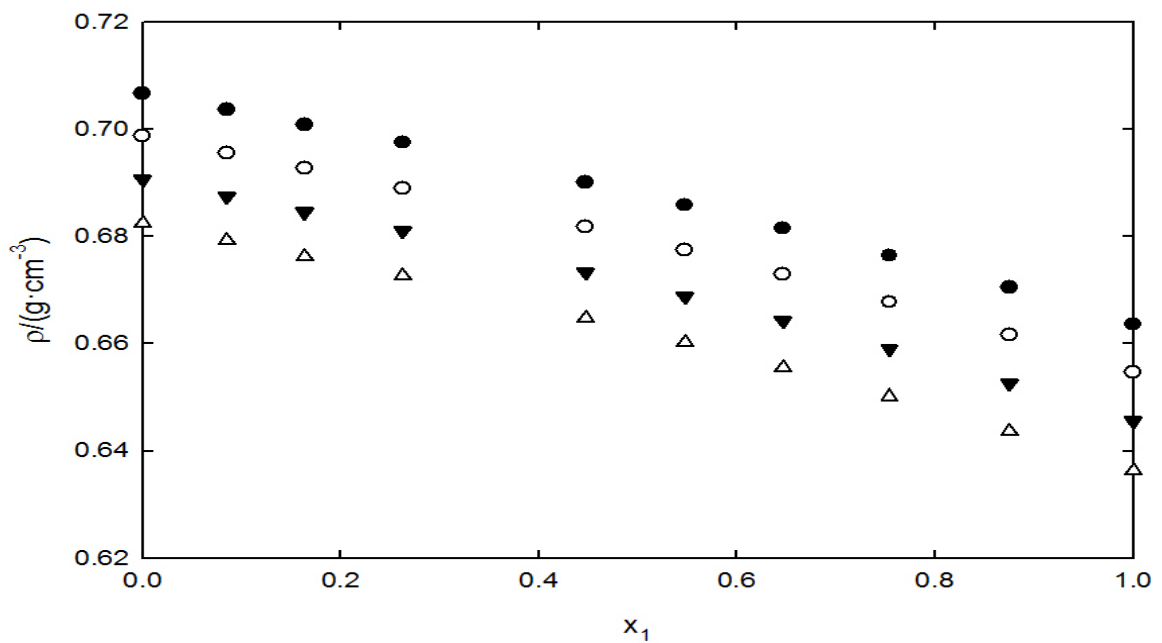


Figura G-37. Densidad para el sistema binario *n*-hexano (1) – *n*-octano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

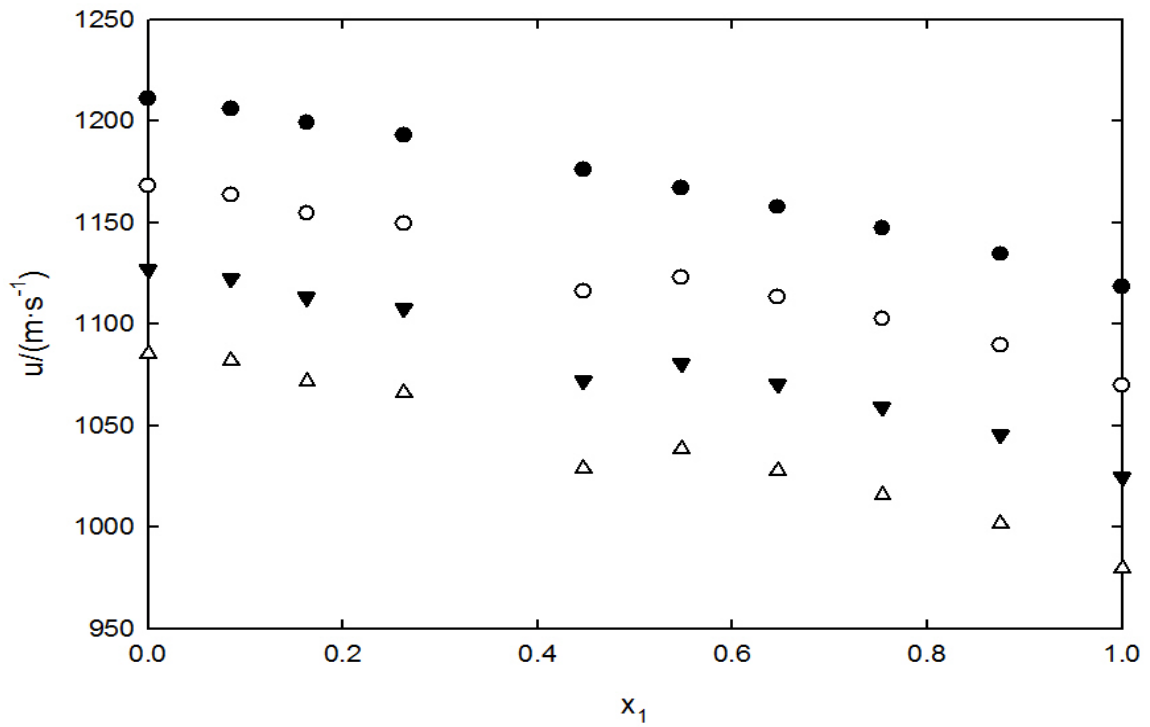


Figura G-38. Velocidad del sonido para el sistema binario *n*-hexano (1) – *n*-octano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K

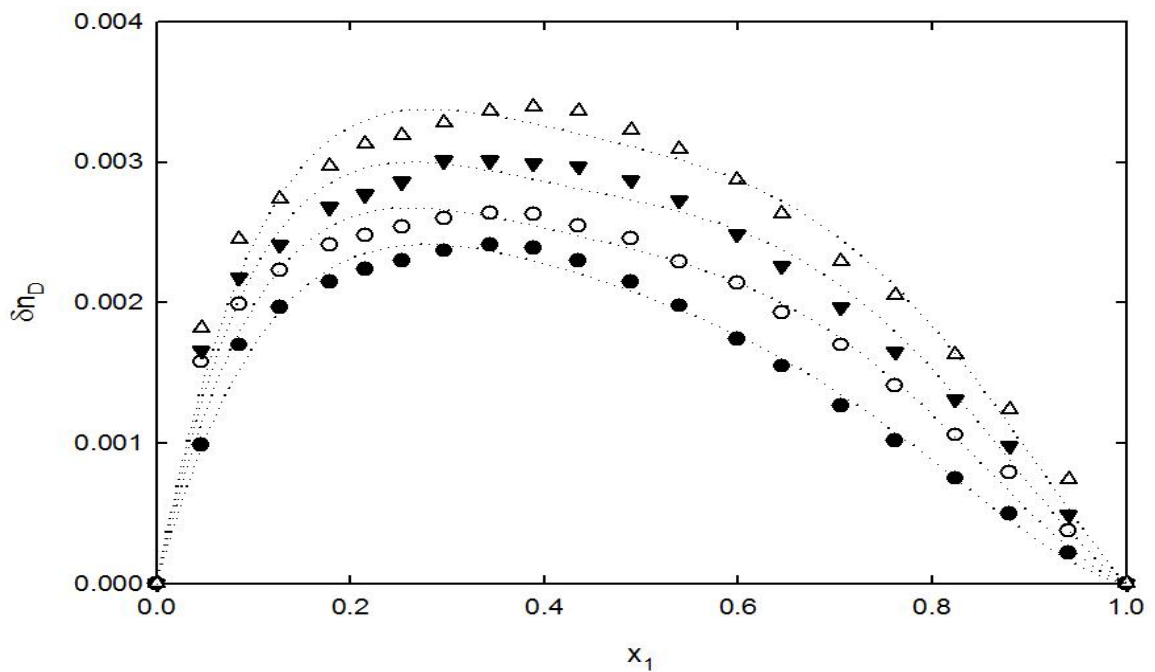


Figura G-39. Desviación del índice de refracción para el sistema binario *n*-hexano (1) – *n*-octano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K. La línea sólida corresponde al modelo de Redlich-Kister.

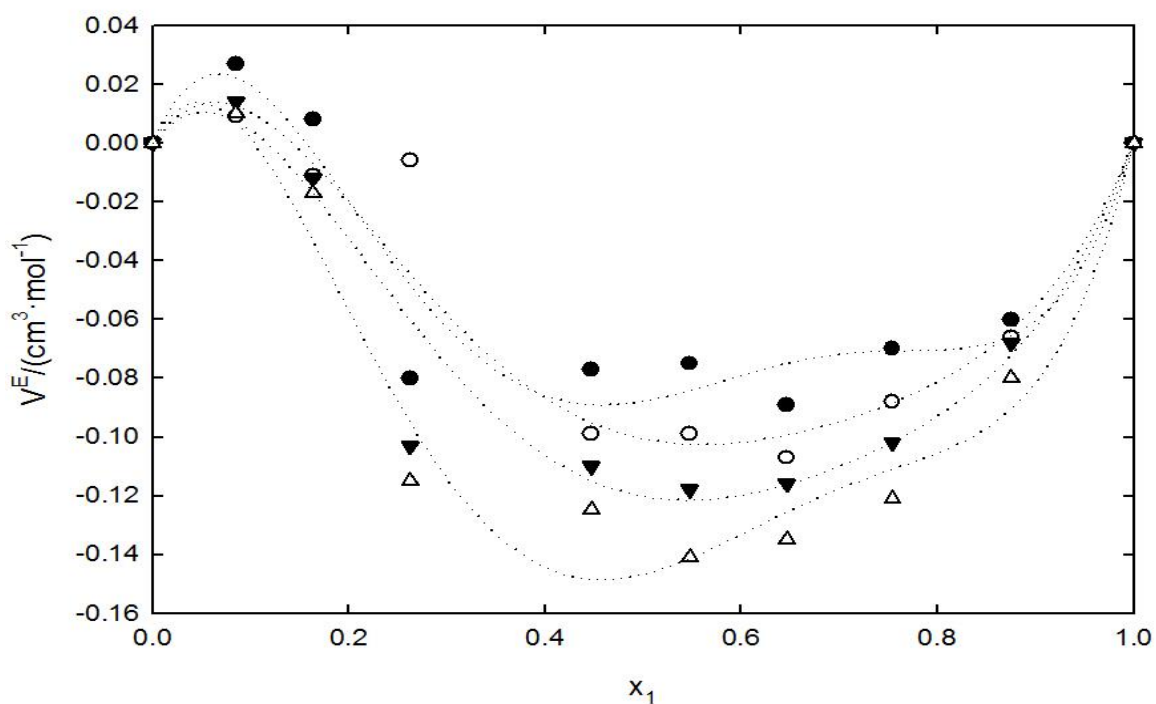


Figura G-40. Volumen de exceso para el sistema binario *n*-hexano (1) – *n*-octano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K. La línea sólida corresponde al modelo de Redlich-Kister.

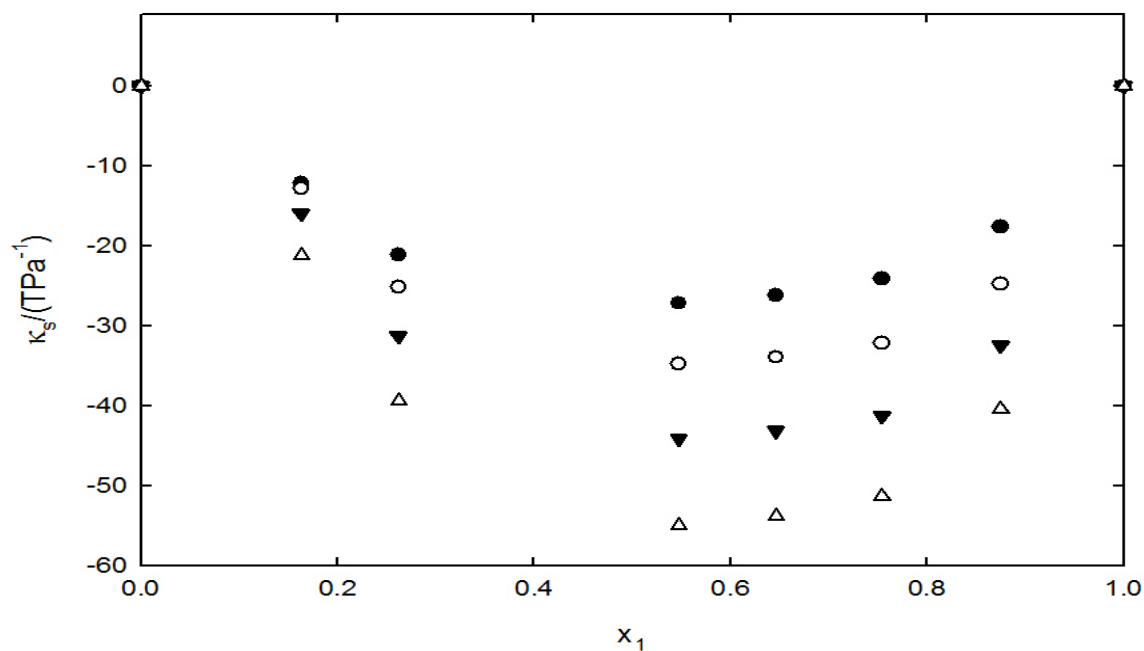


Figura G-41. Compresibilidad isoentrópica para el sistema binario *n*-hexano (1) – *n*-octano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K

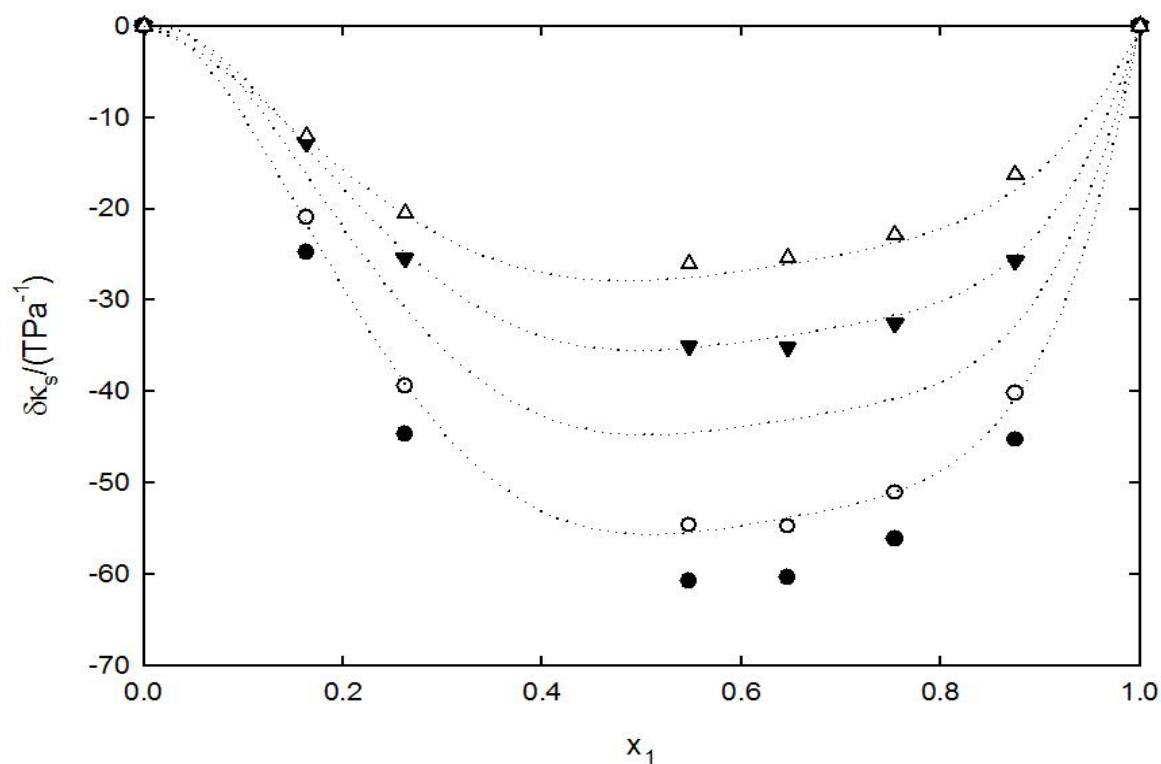


Figura G-42. Desviación de la compresibilidad isoentrópica el sistema binario *n*-hexano (1) – *n*-octano (2) a, ● $T=288.15$ K; ○, $T = 298.15$ K; ▼, $T = 308.15$ K; Δ, $T = 318.15$ K. La línea sólida corresponde al modelo de Redlich-Kister.

G.1.1.7. *n*-hexano – *n*-nonano

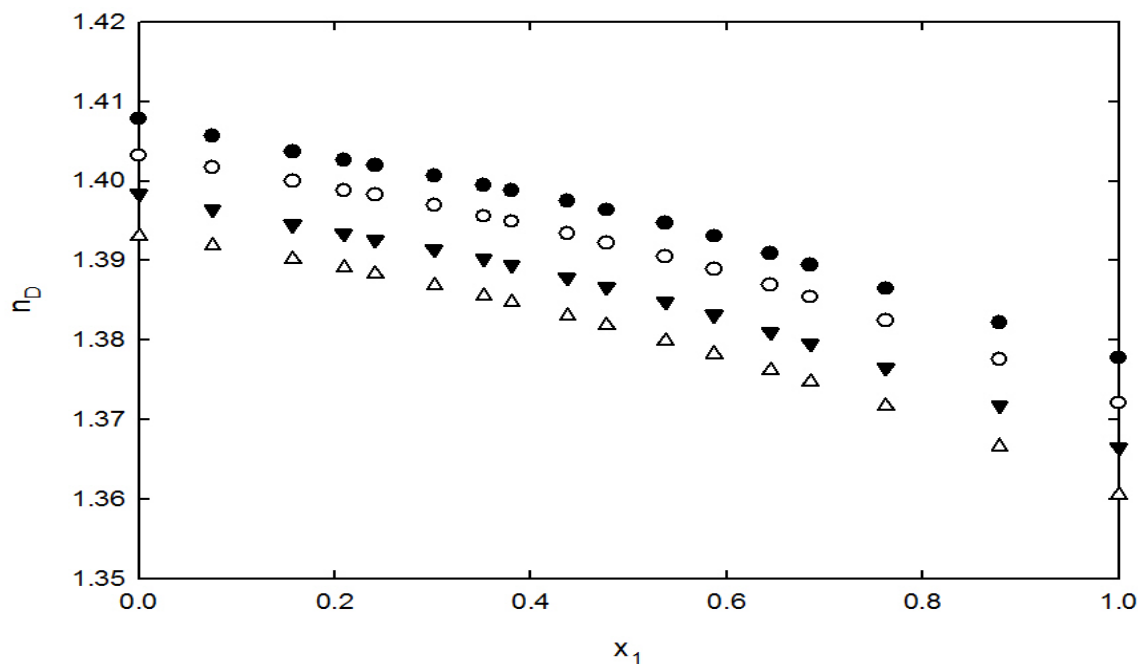


Figura G-43. Índice de refracción para el sistema binario *n*-hexano (1) – *n*-nonano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

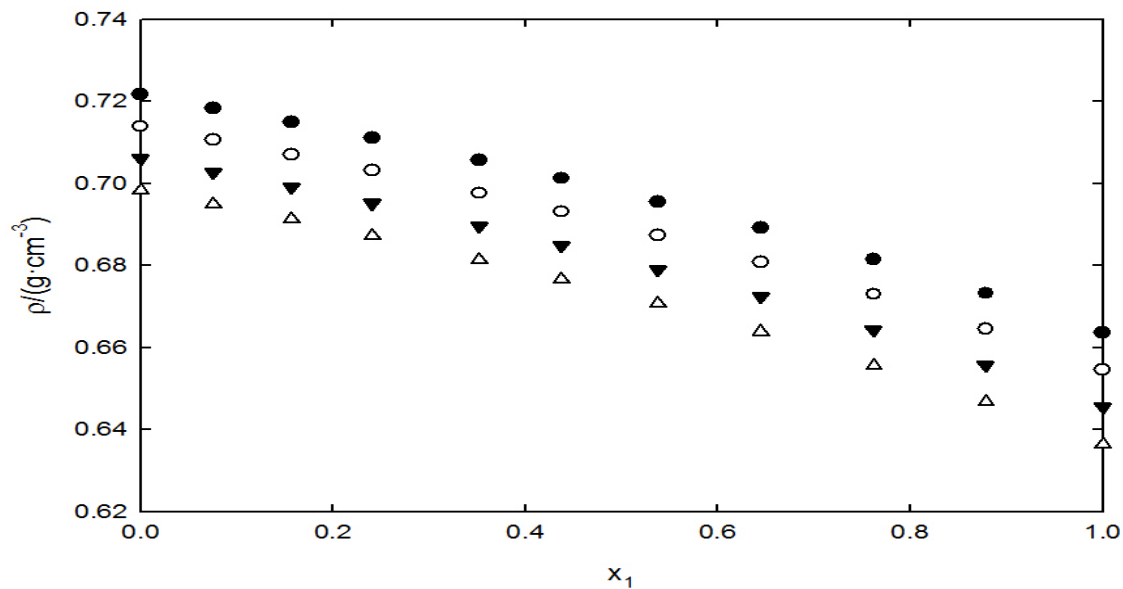


Figura G-44. Densidad para el sistema binario *n*-hexano (1) – *n*-nonano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

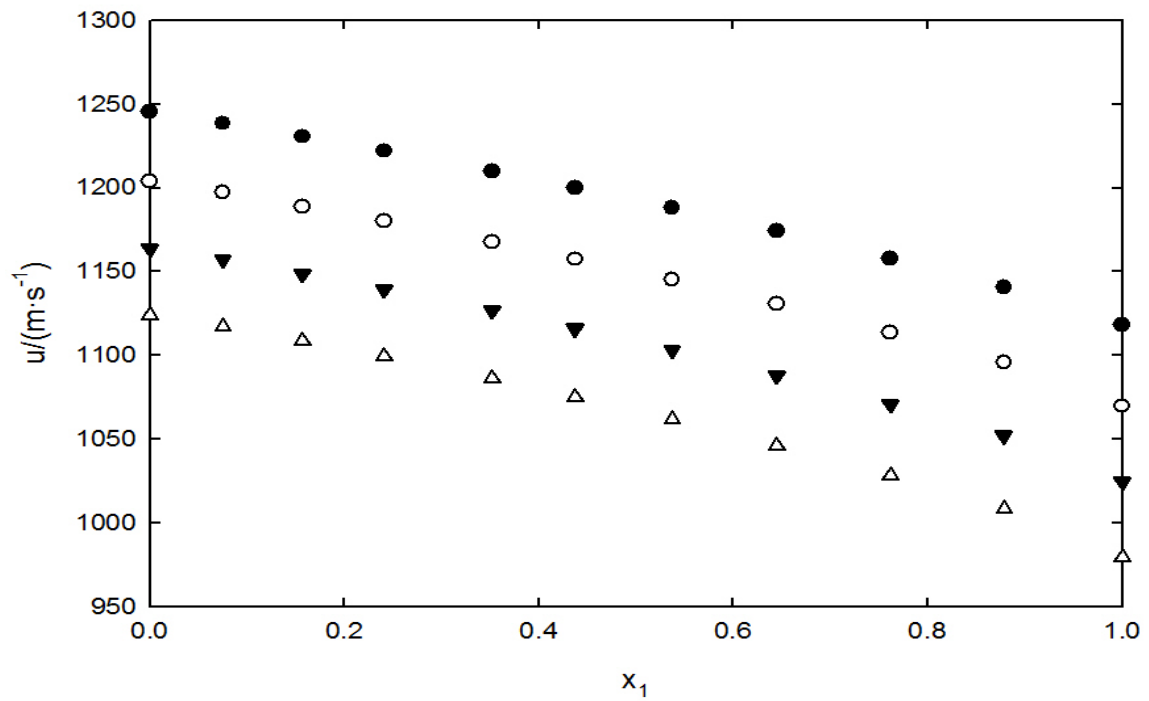


Figura G-45. Velocidad del sonido para el sistema binario *n*-hexano (1) – *n*-nonano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

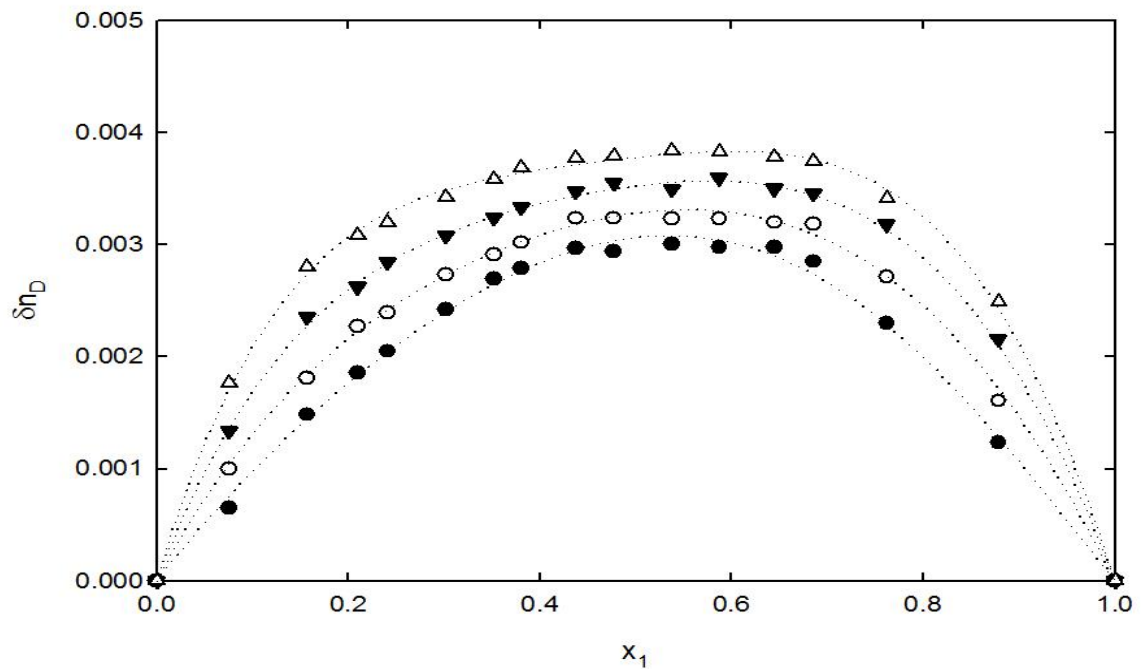


Figura G-46. Desviación del índice de refracción para el sistema binario *n*-hexano (1) – *n*-nonano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K. La línea sólida corresponde al modelo de Redlich-Kister.

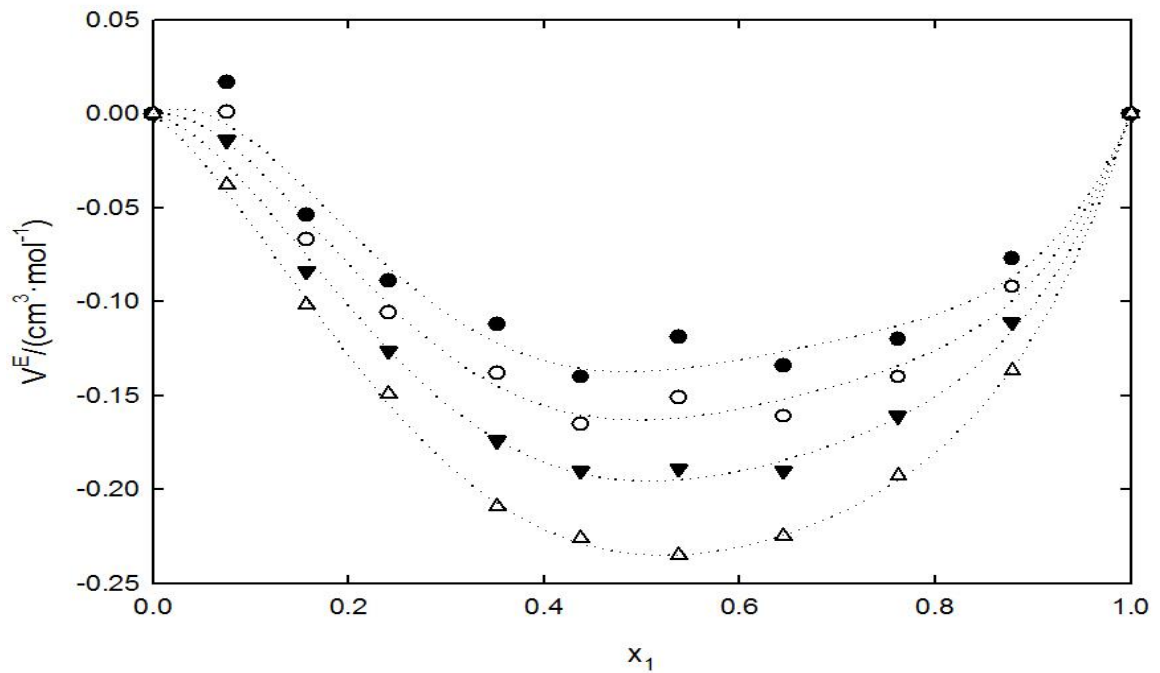


Figura G-47. Volumen de exceso para el sistema binario *n*-hexano (1) – *n*-nonano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K. La línea sólida corresponde al modelo de Redlich-Kister.

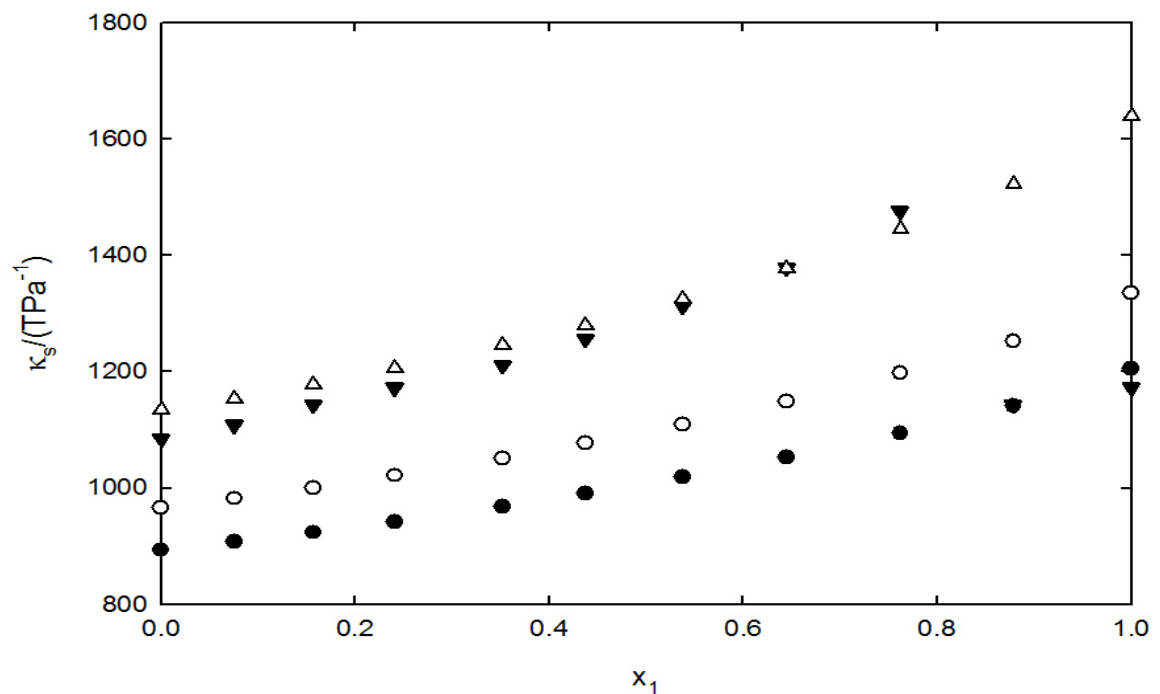


Figura G-48. Compresibilidad isoentrópica para el sistema binario *n*-hexano (1) – *n*-nonano (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

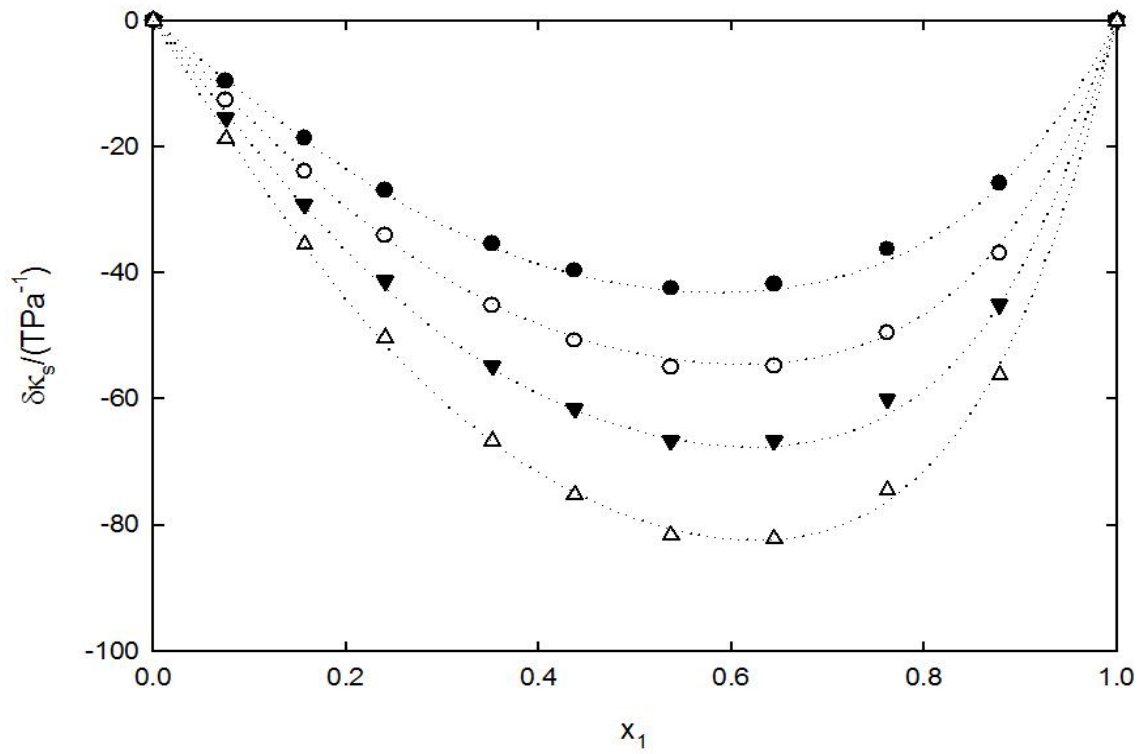


Figura G-49. Desviación de la compresibilidad isoentrópica el sistema binario *n*-hexano (1) – *n*-nonano (2) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; Δ, $T = 318.15 \text{ K}$. La línea sólida corresponde al modelo de Redlich-Kister.

G.1.2. Gráficas sistemas binarios orgánico – acuoso

G.1.2.1. Etanol – agua

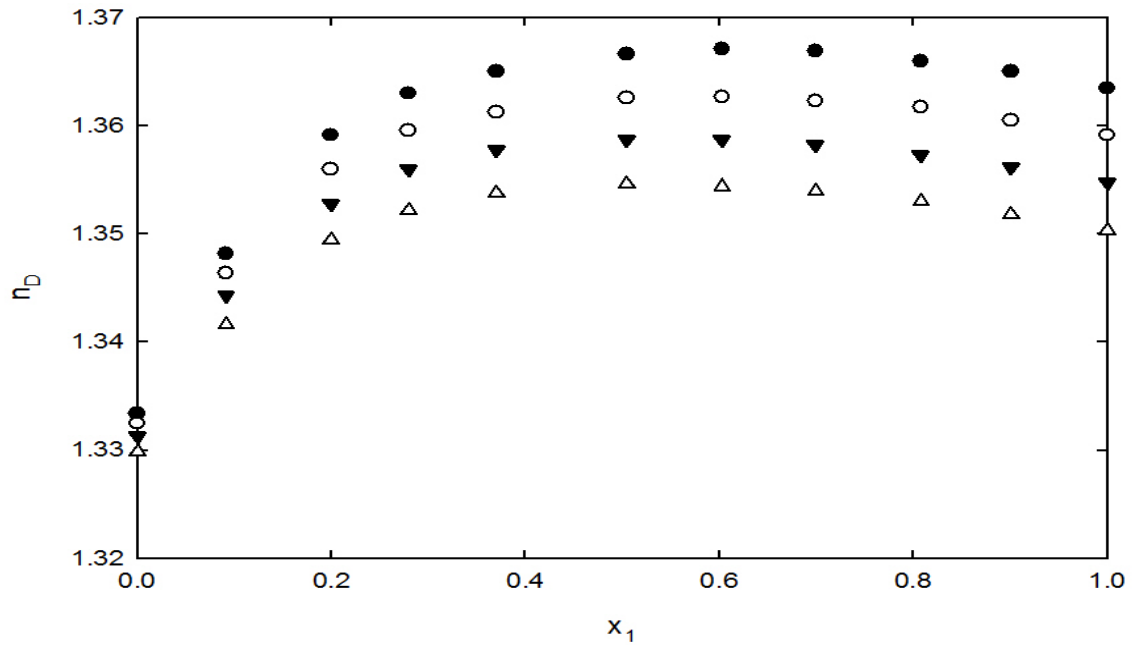


Figura G-50. Índice de refracción para el sistema binario Etanol (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

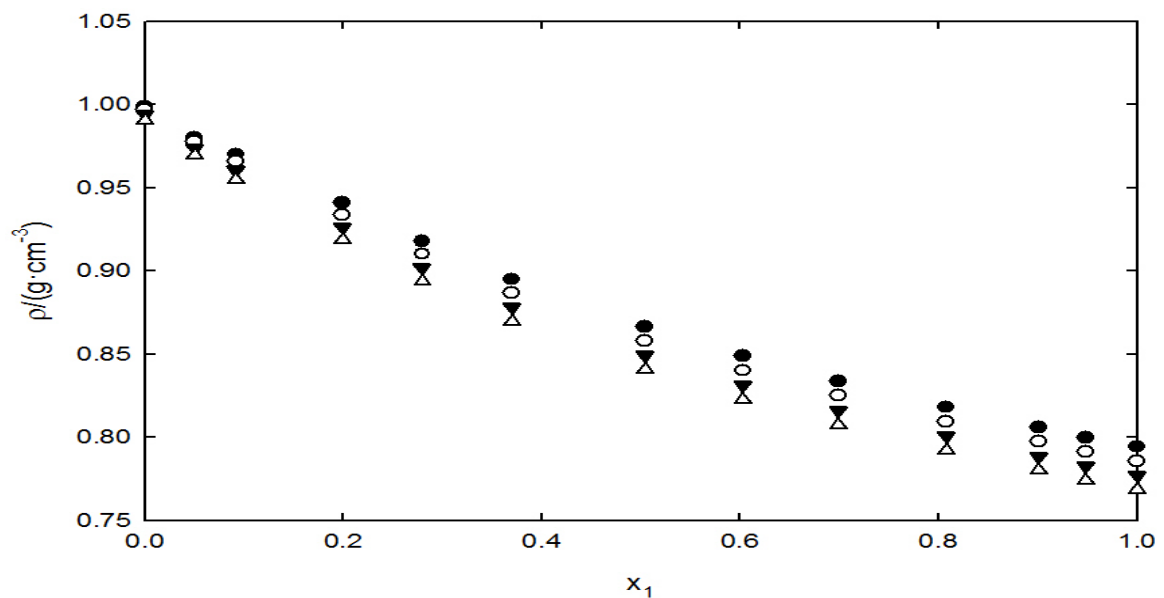


Figura G-51. Densidad para el sistema binario Etanol (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

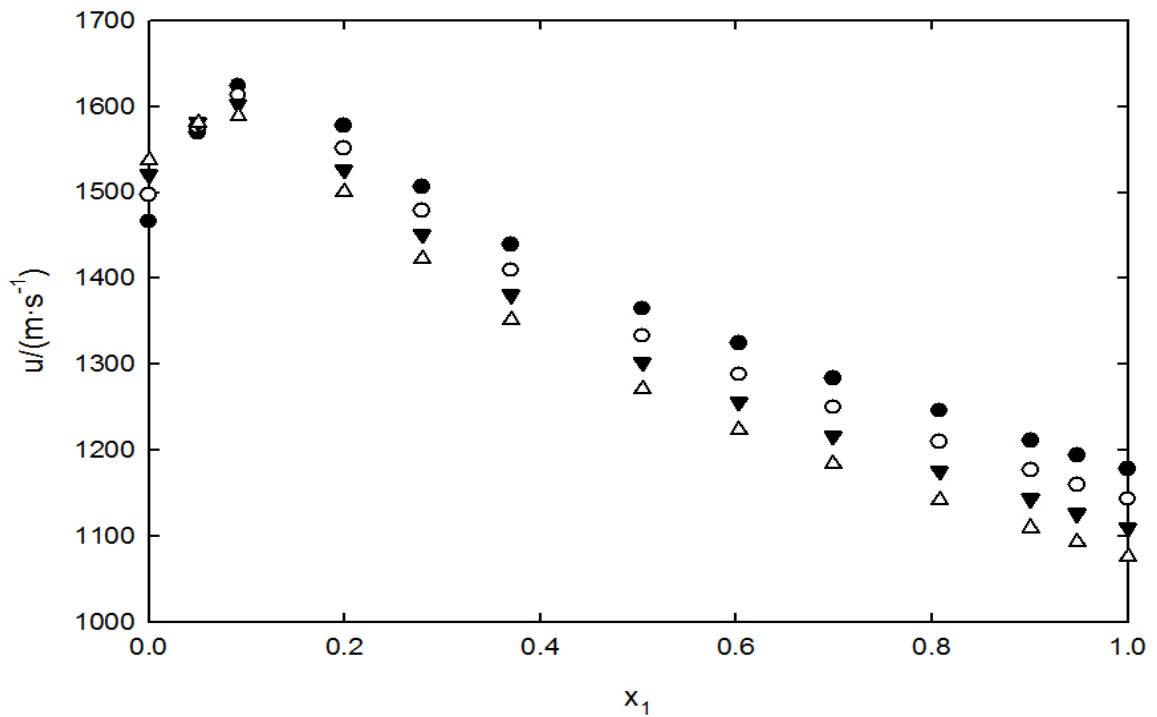


Figura G-52. Velocidad del sonido para el sistema binario Etanol (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

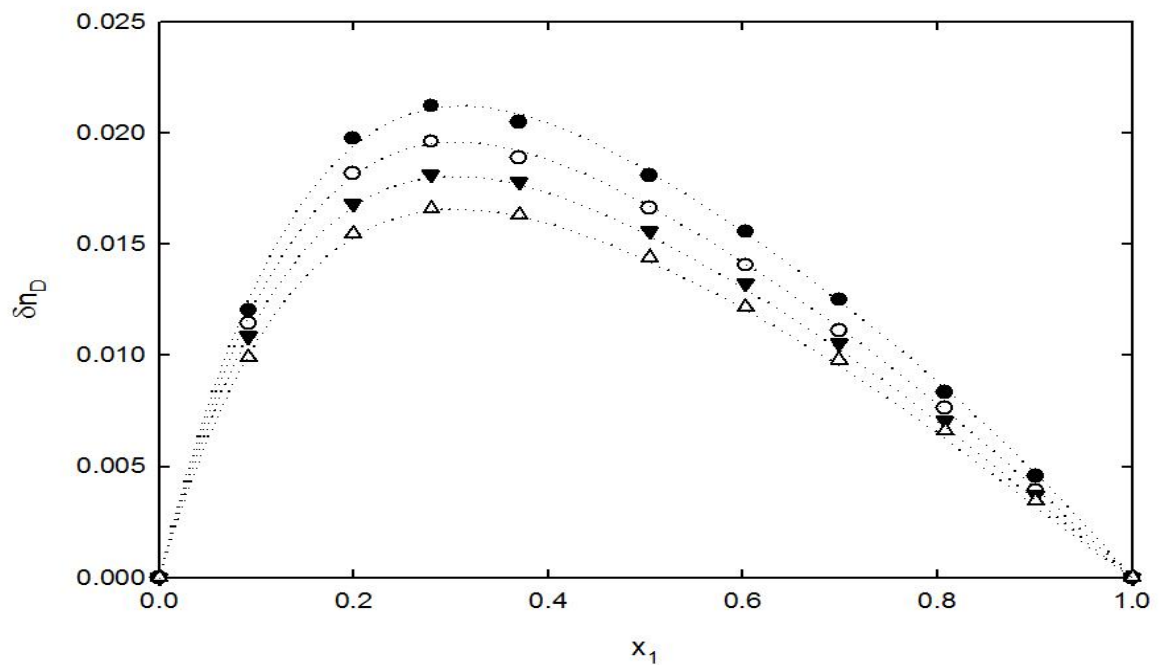


Figura G-53. Desviación del índice de refracción para el sistema binario Etanol (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K. La línea sólida corresponde al modelo de Redlich-Kister.

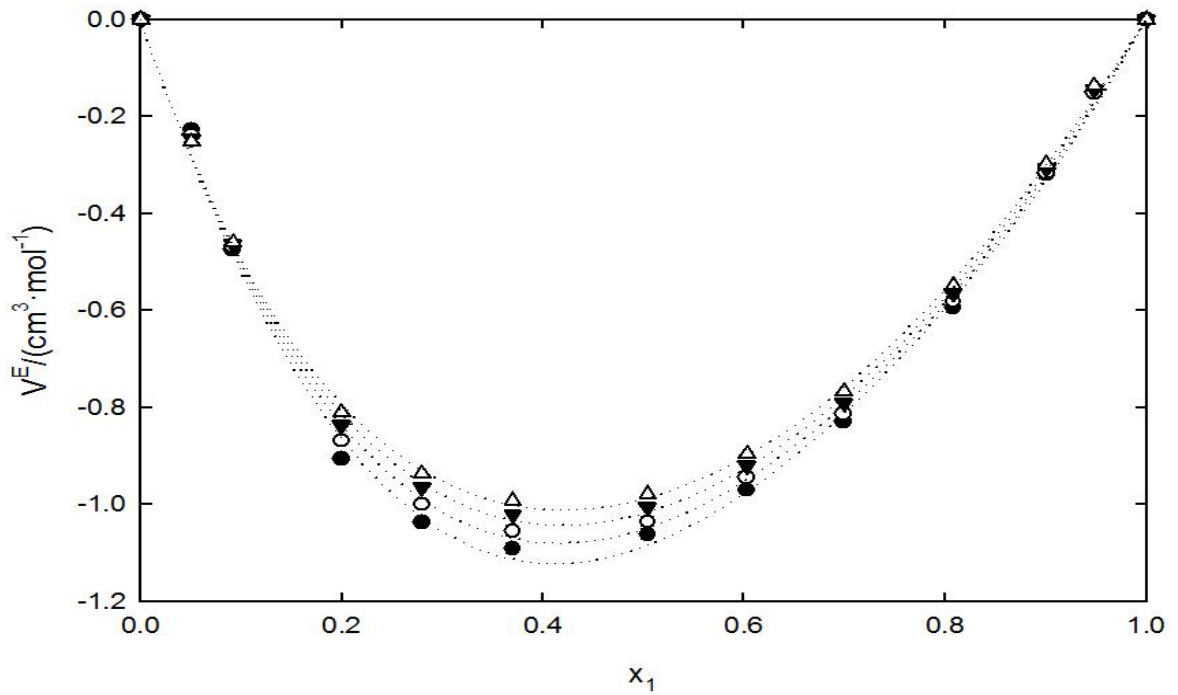


Figura G-54. Volumen de exceso para el sistema binario Etanol (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K. La línea sólida corresponde al modelo de Redlich-Kister.

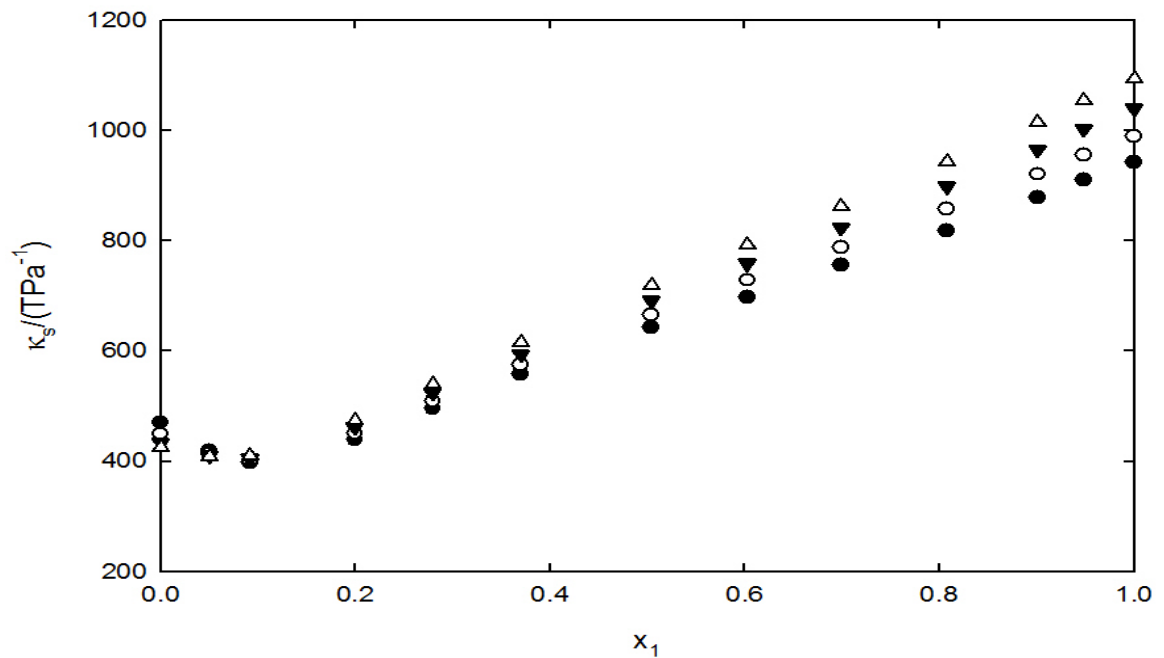


Figura G-55. Compresibilidad isoentrópica para el sistema binario Etanol (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

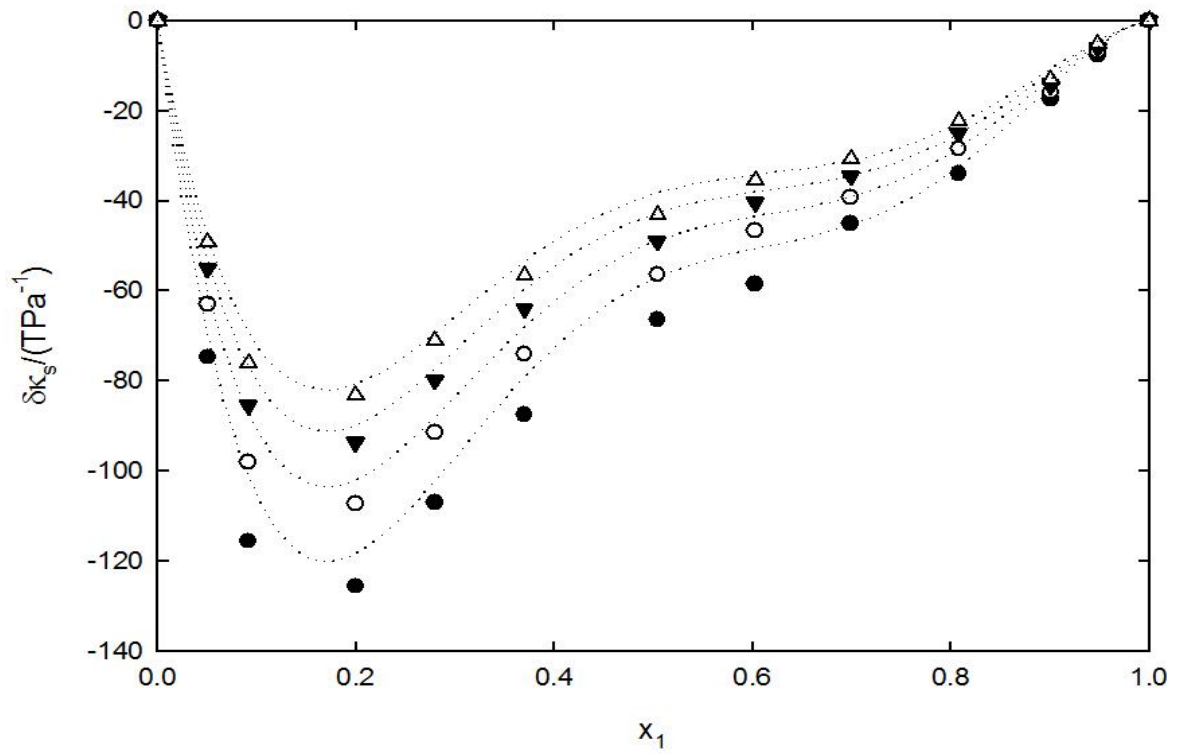


Figura G-56. Desviación de la compresibilidad isoentrópica el sistema binario Etanol (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K. La línea sólida corresponde al modelo de Redlich-Kister.

G.1.3. Gráficas sistemas binarios acuoso – acuoso

G.1.3.1. Tween 20 – agua

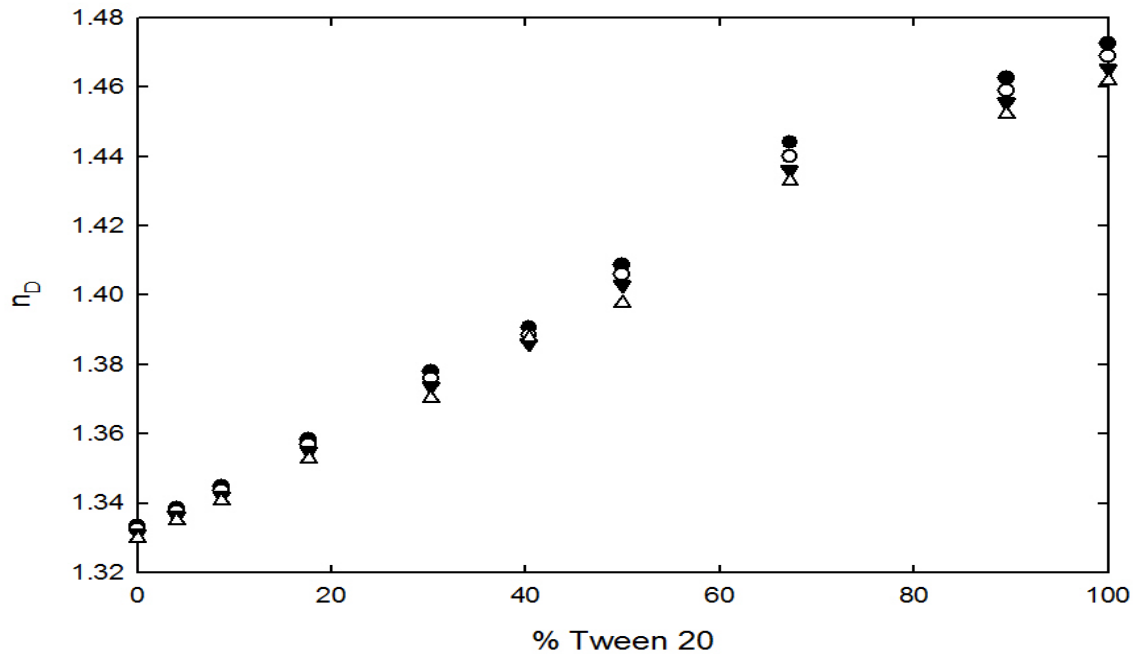


Figura G-57. Índice de refracción para el sistema binario Tween 20 (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

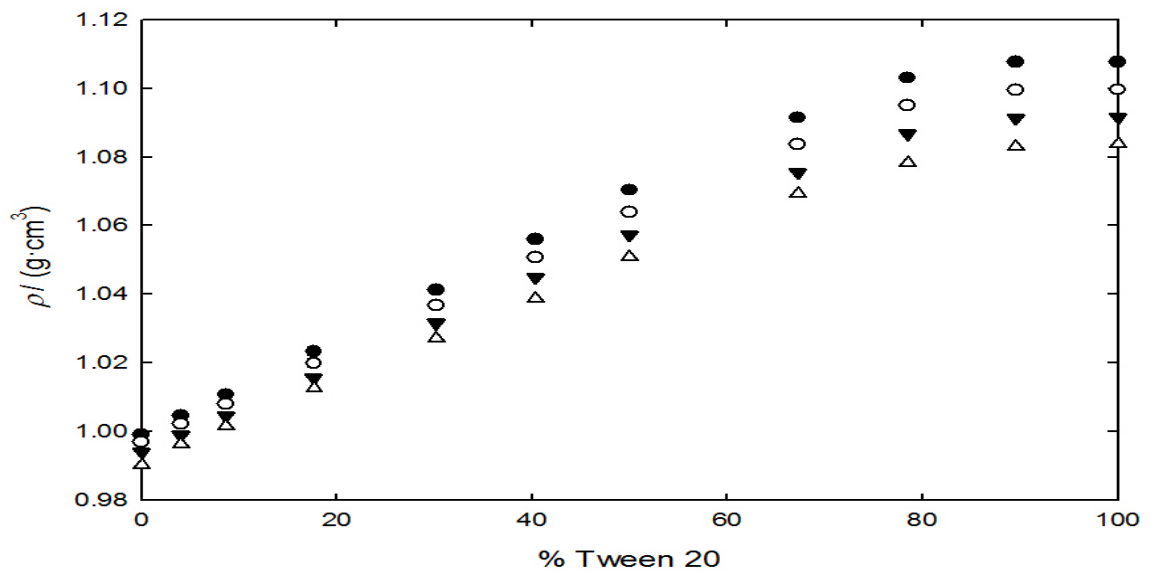


Figura G-58. Densidad para el sistema binario Tween 20 (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

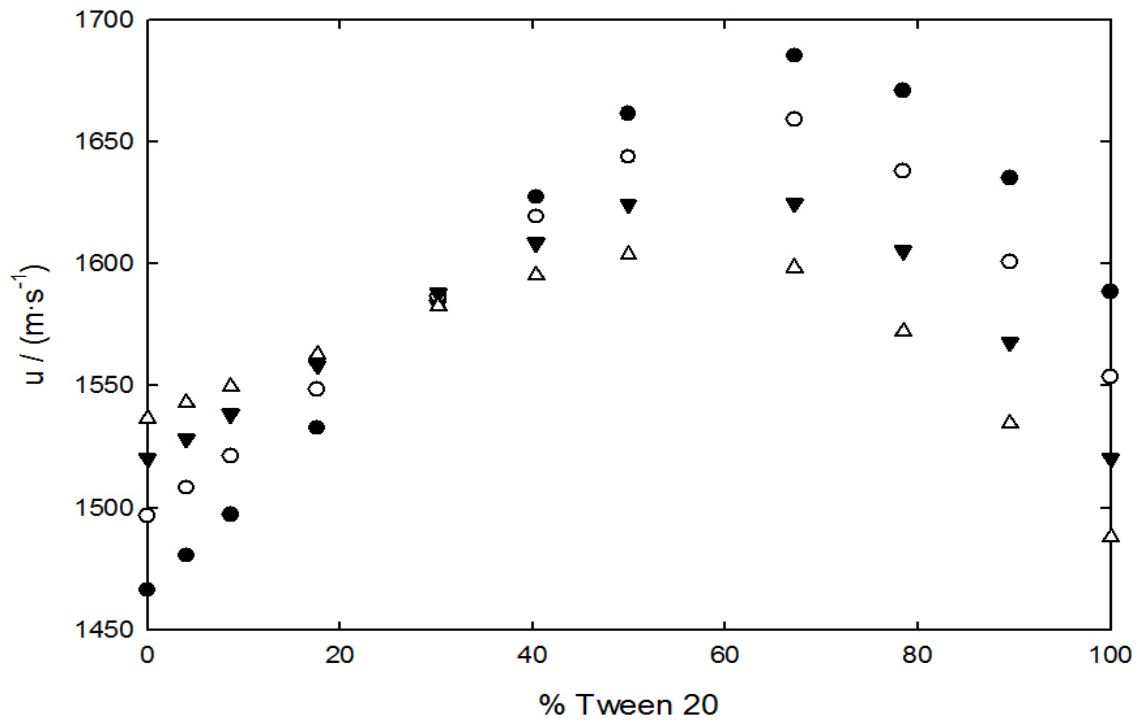


Figura G-59. Velocidad del sonido para el sistema binario Tween 20 (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K

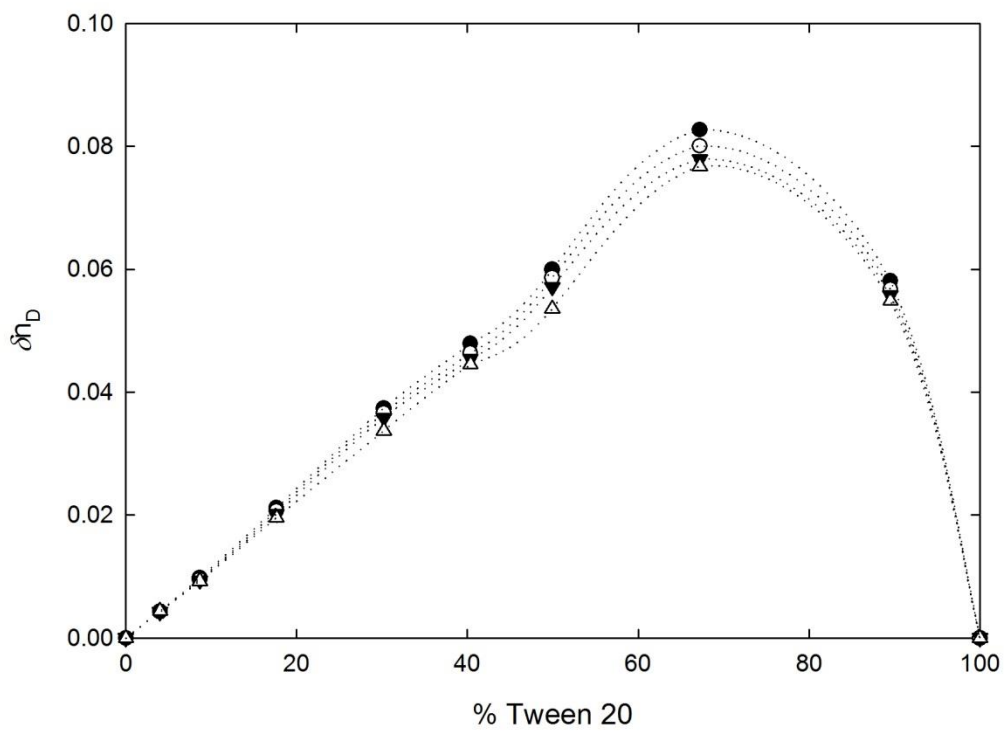


Figura G-60. Desviación del índice de refracción para el sistema binario Tween 20 (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K.

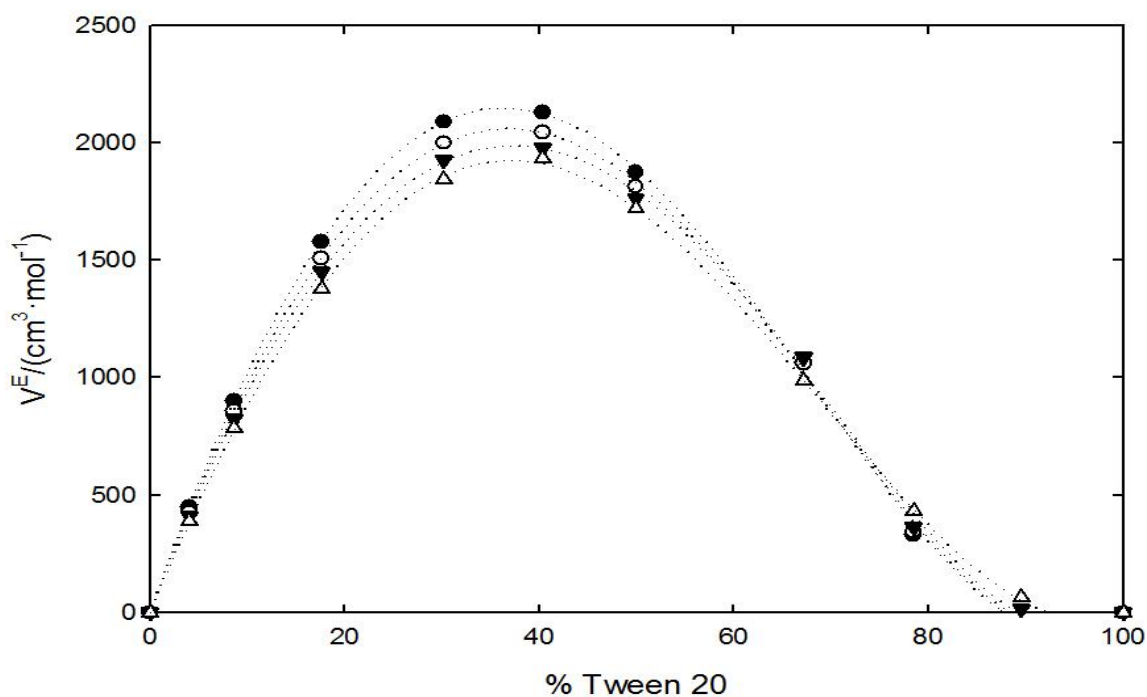


Figura G-61. Volumen de exceso para el sistema binario Tween 20 (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K.

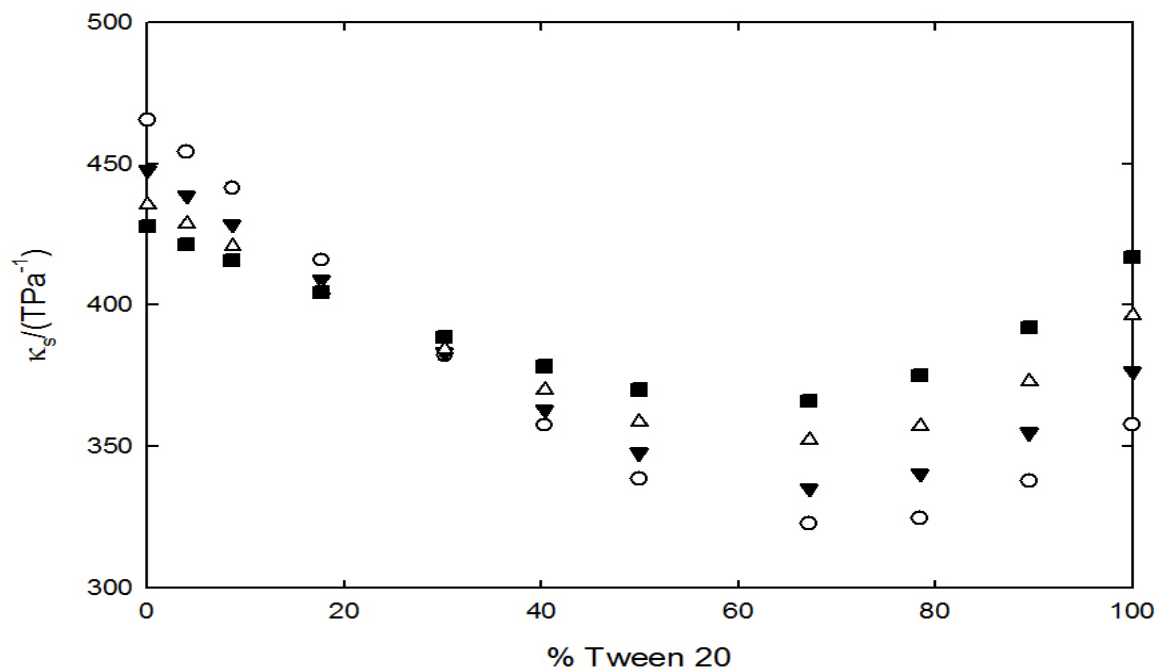


Figura G-62. Compresibilidad isoentrópica para el sistema binario Tween 20 (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K

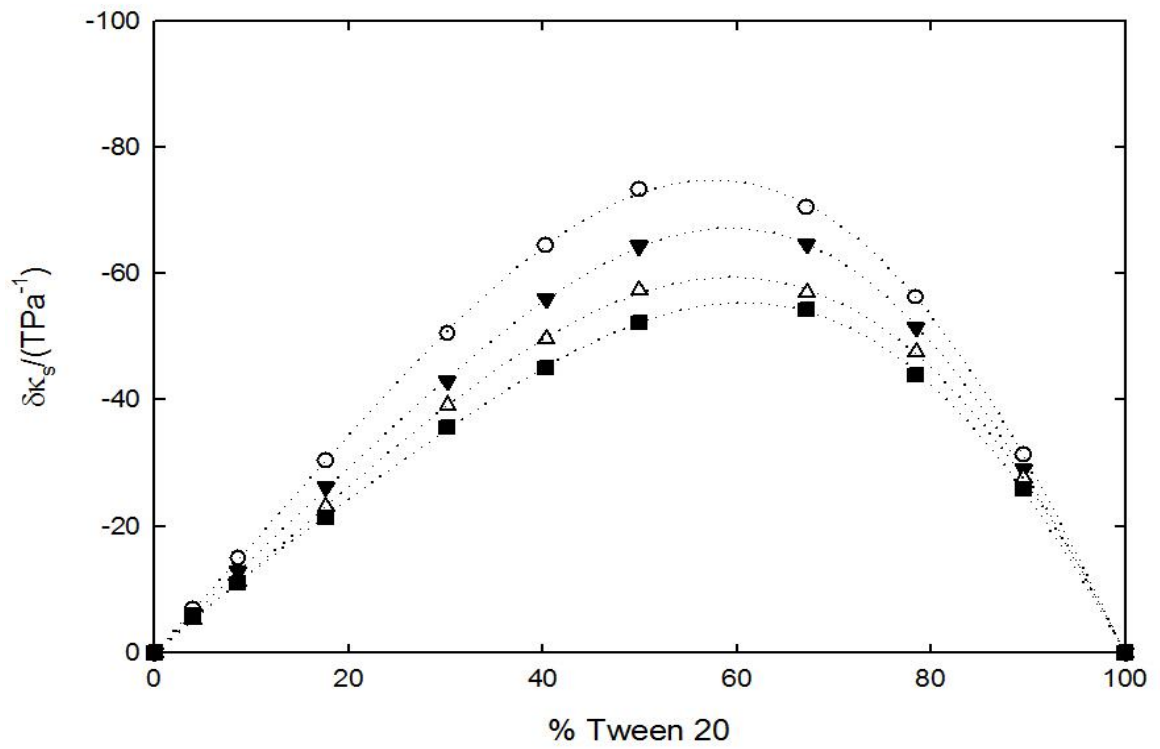


Figura G-63. Desviación de la compresibilidad isoentrópica el sistema binario Tween 20 (1) – agua (2) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; Δ, $T = 318.15 \text{ K}$.

G.1.3.2. Tritón X-102 – agua

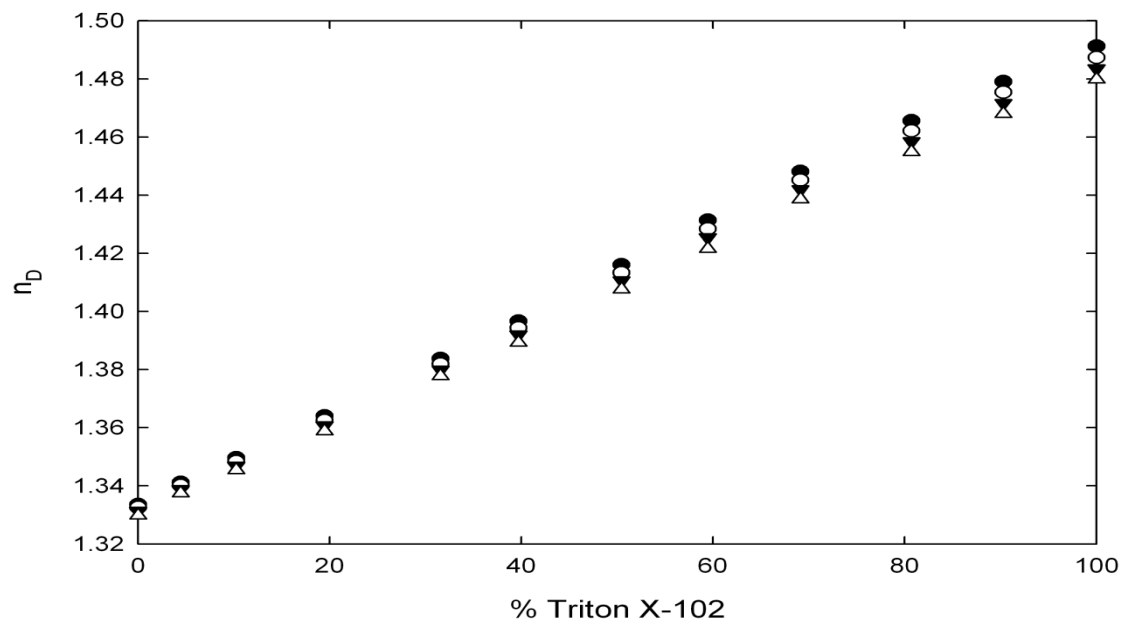


Figura G-64. Índice de refracción para el sistema binario Tritón X-102 (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

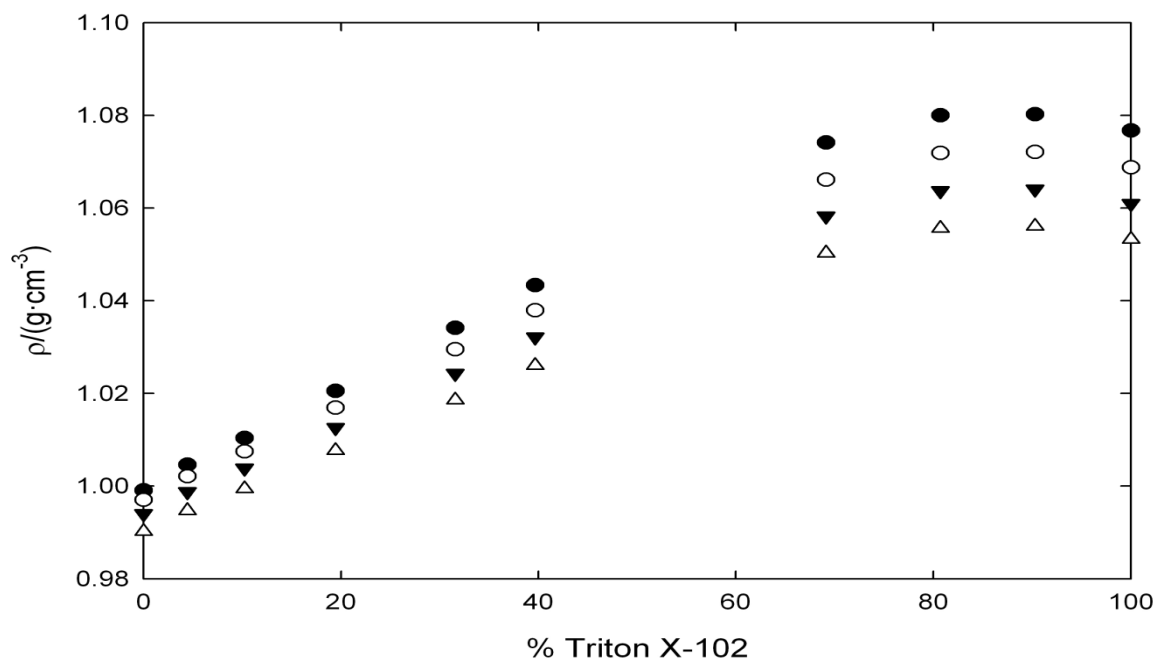


Figura G-65. Densidad para el sistema binario Tritón X-102 (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

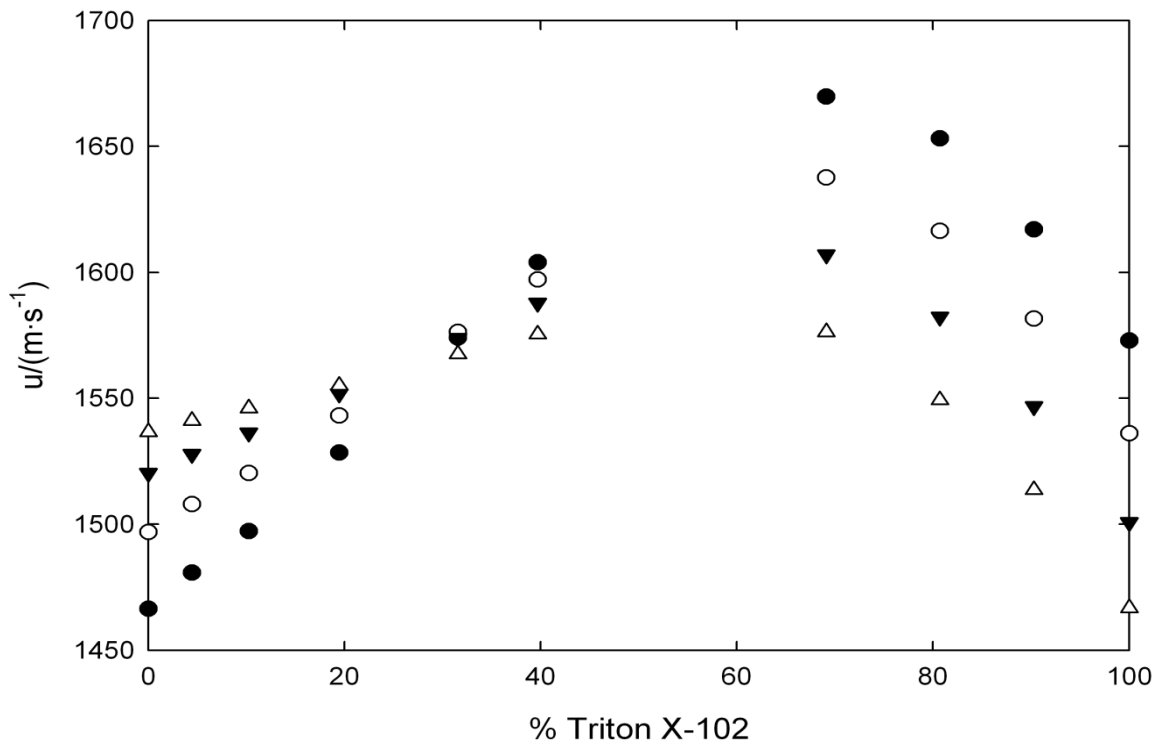


Figura G-66. Velocidad del sonido para el sistema binario Tritón X-102 (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K

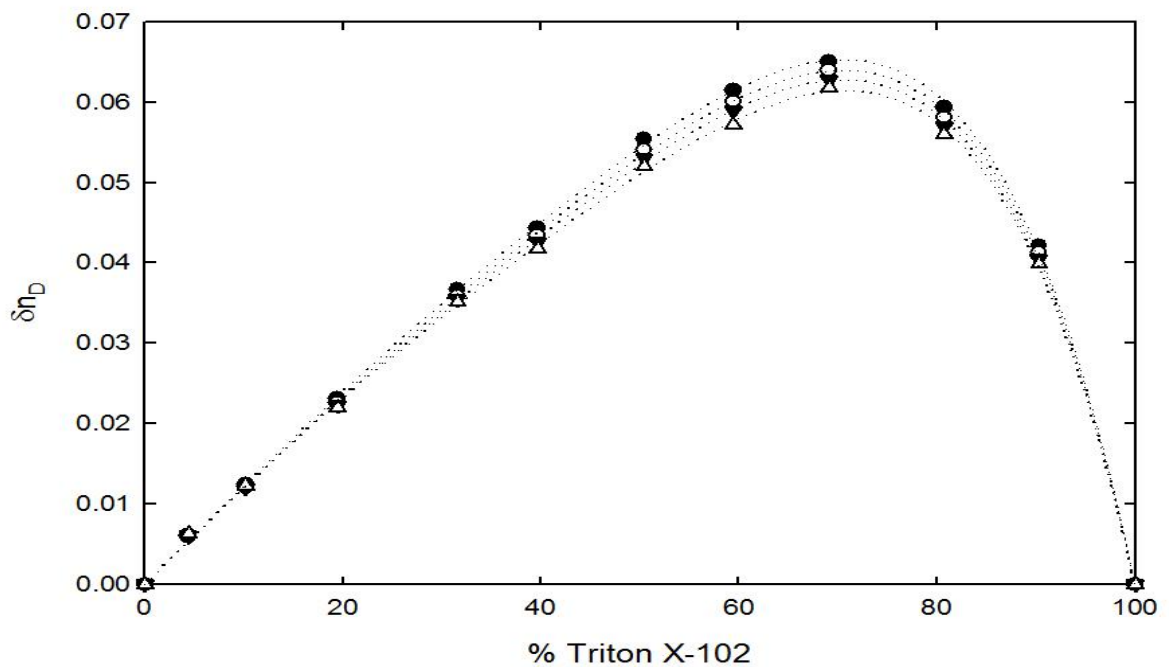


Figura G-67. Desviación del índice de refracción para el sistema binario Tritón X-102 (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K.

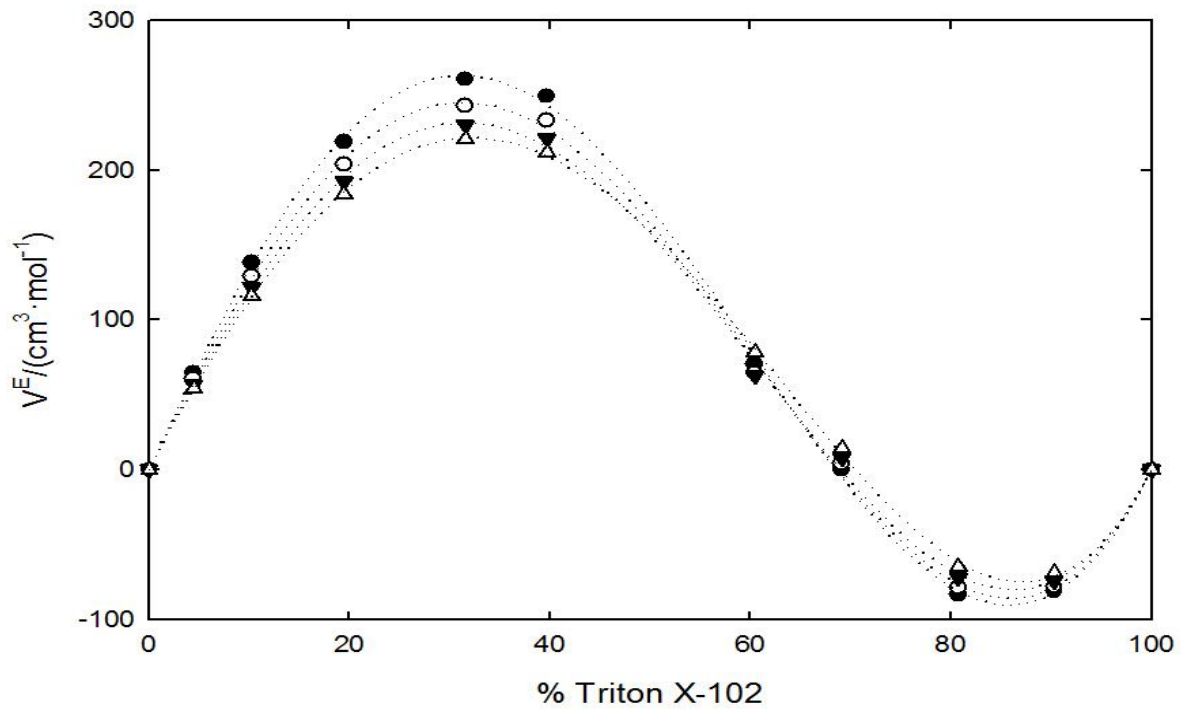


Figura G-68. Volumen de exceso para el sistema binario Tritón X-102 (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K.

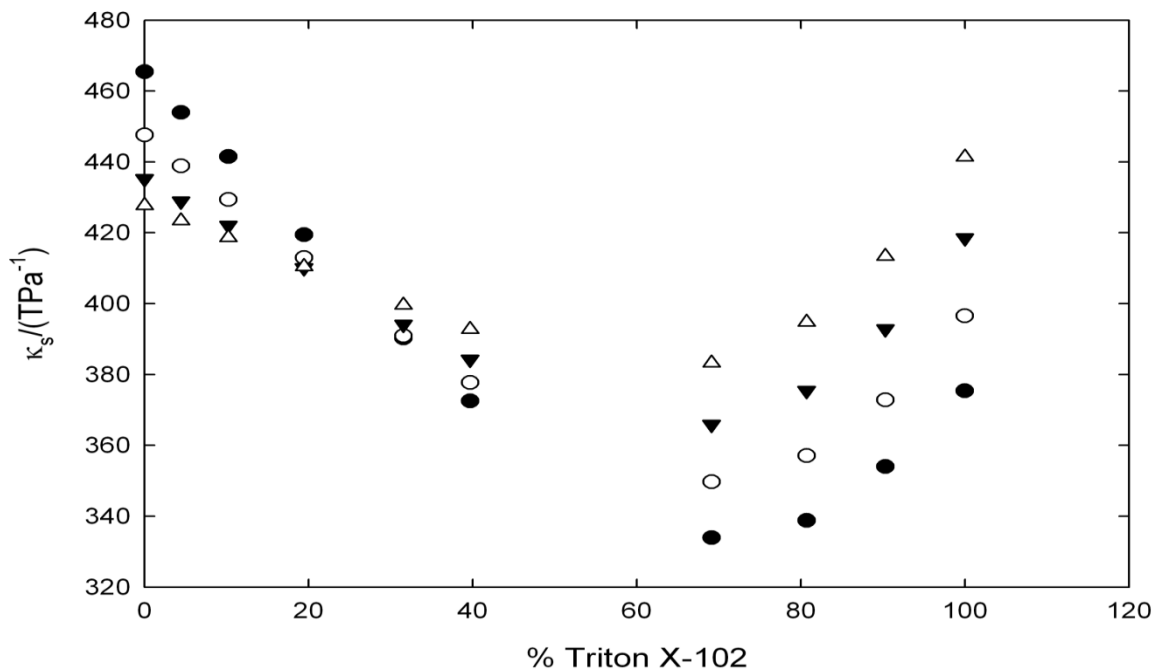


Figura G-69. Compresibilidad isoentrópica para el sistema binario Tritón X-102 (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

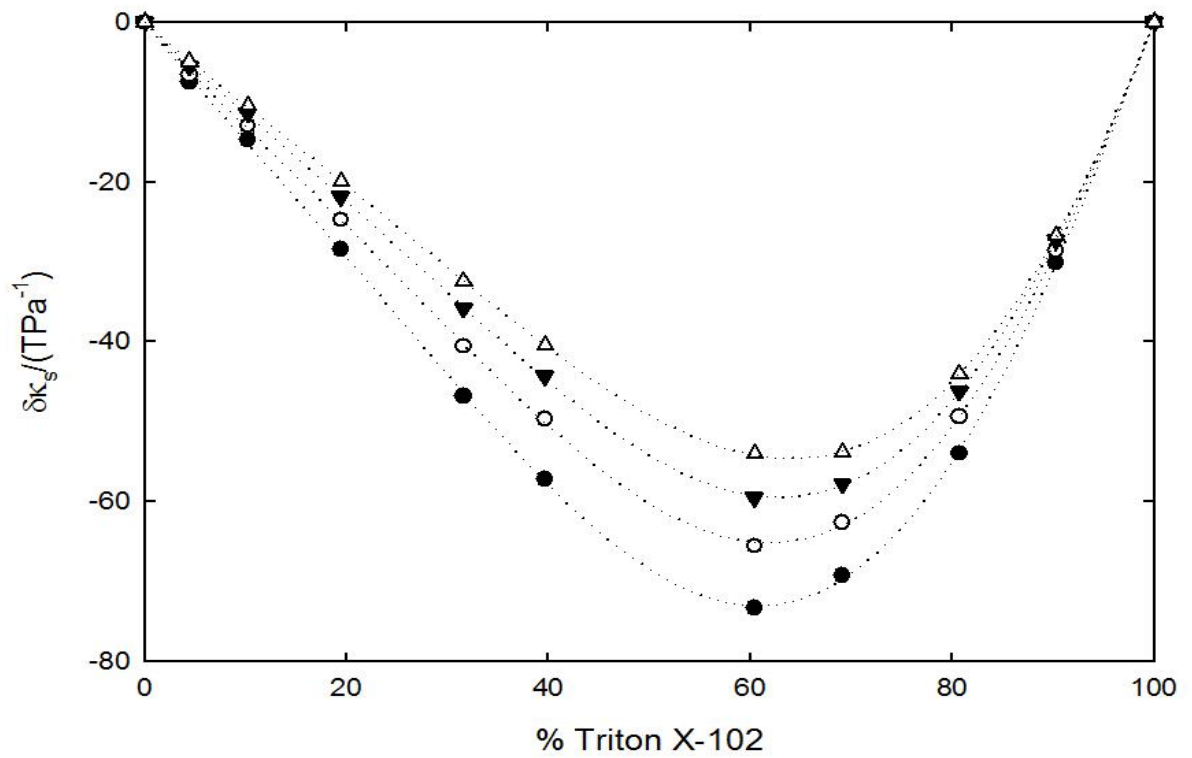


Figura G-70. Desviación de la compresibilidad isoentrópica el sistema binario Tritón X-102 (1) – agua (2) a, \bullet T=288.15 K; \circ , T = 298.15 K; \blacktriangledown , T = 308.15 K; Δ , T = 318.15 K.

G.1.3.3. Na₂SO₄ – agua

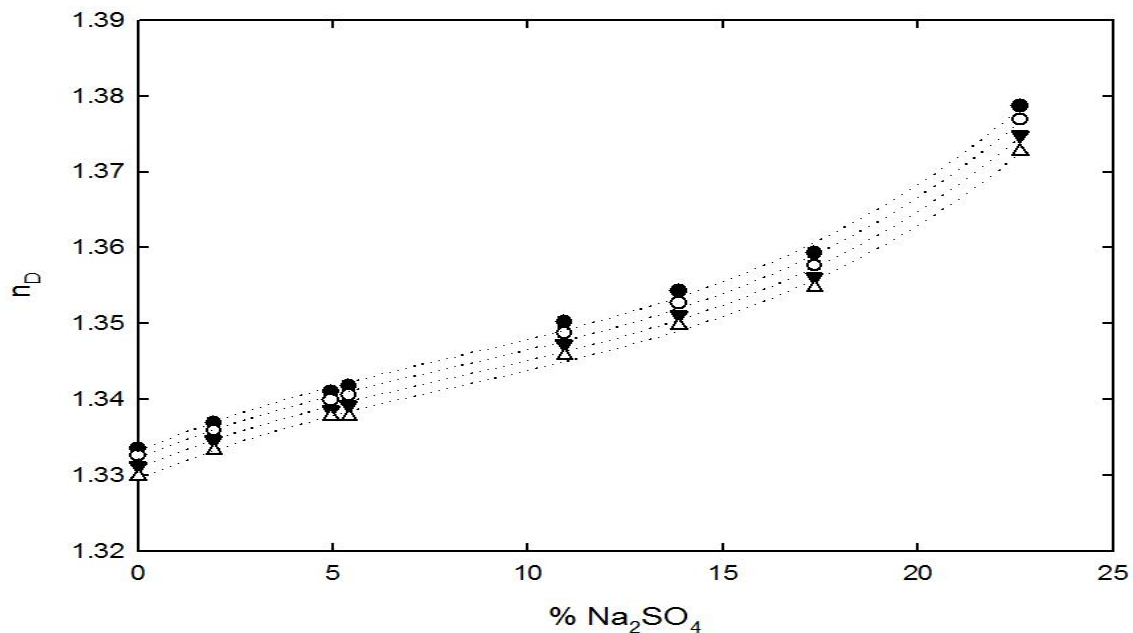


Figura G-71. Índice de refracción para el sistema binario Na₂SO₄ (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

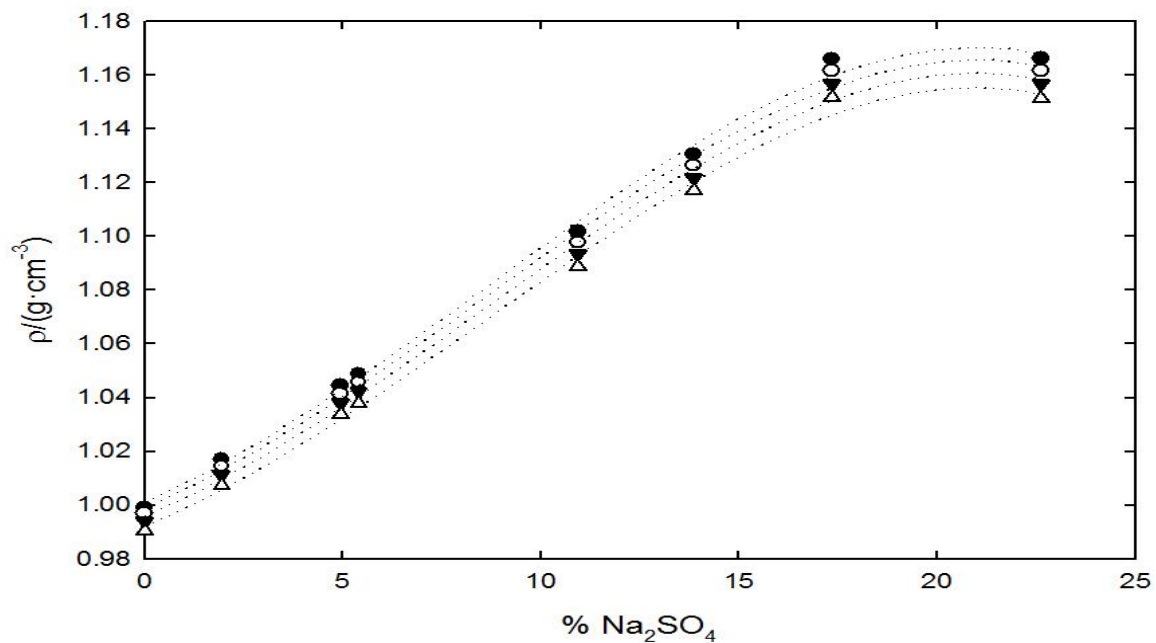


Figura G-72. Densidad para el sistema binario Na₂SO₄ (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

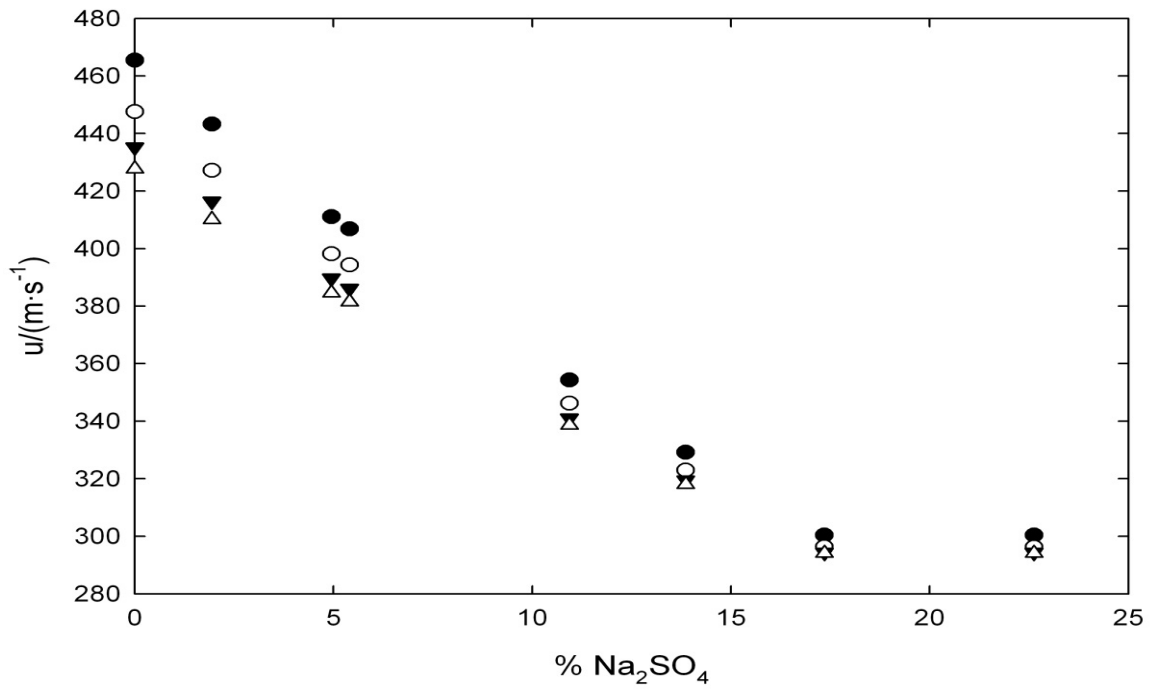


Figura G-73. Velocidad del sonido para el sistema binario Na₂SO₄ (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

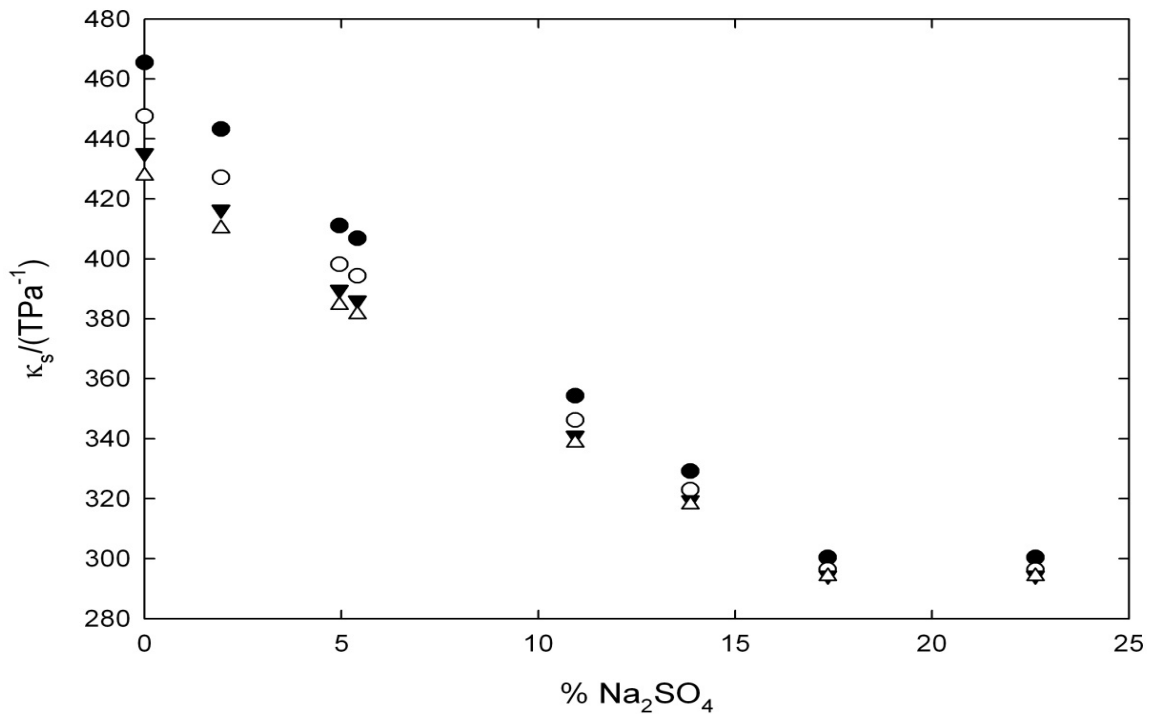


Figura G-74. Compresibilidad isoentrópica para el sistema binario Na₂SO₄ (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

G.1.3.4. $\text{Na}_2\text{S}_2\text{O}_3$ – agua

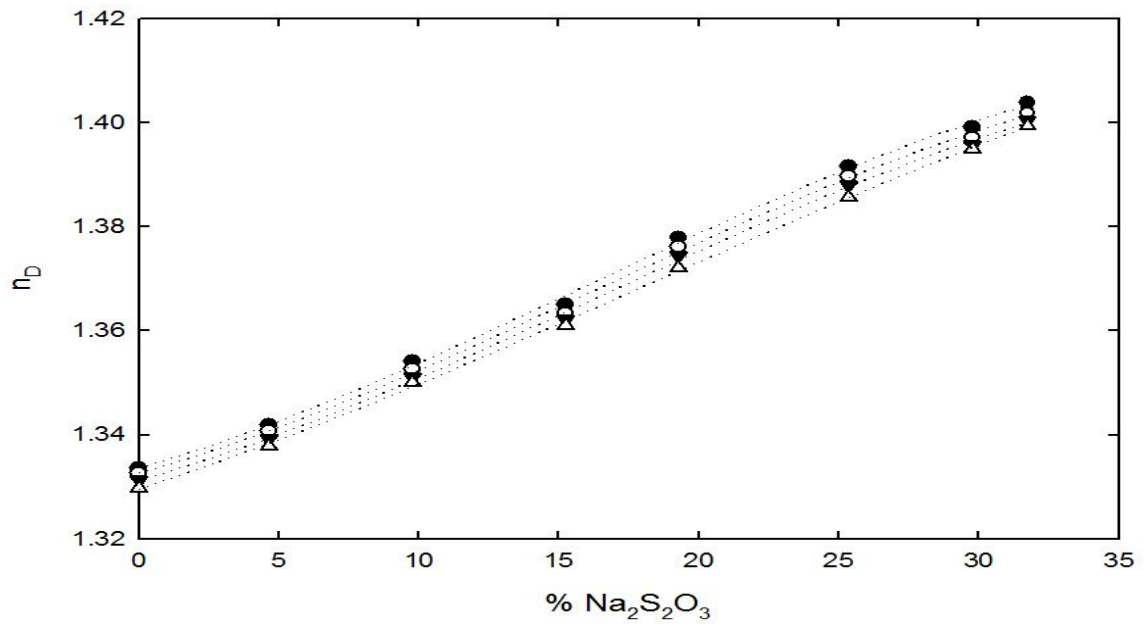


Figura G-75. Índice de refracción para el sistema binario $\text{Na}_2\text{S}_2\text{O}_3$ (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

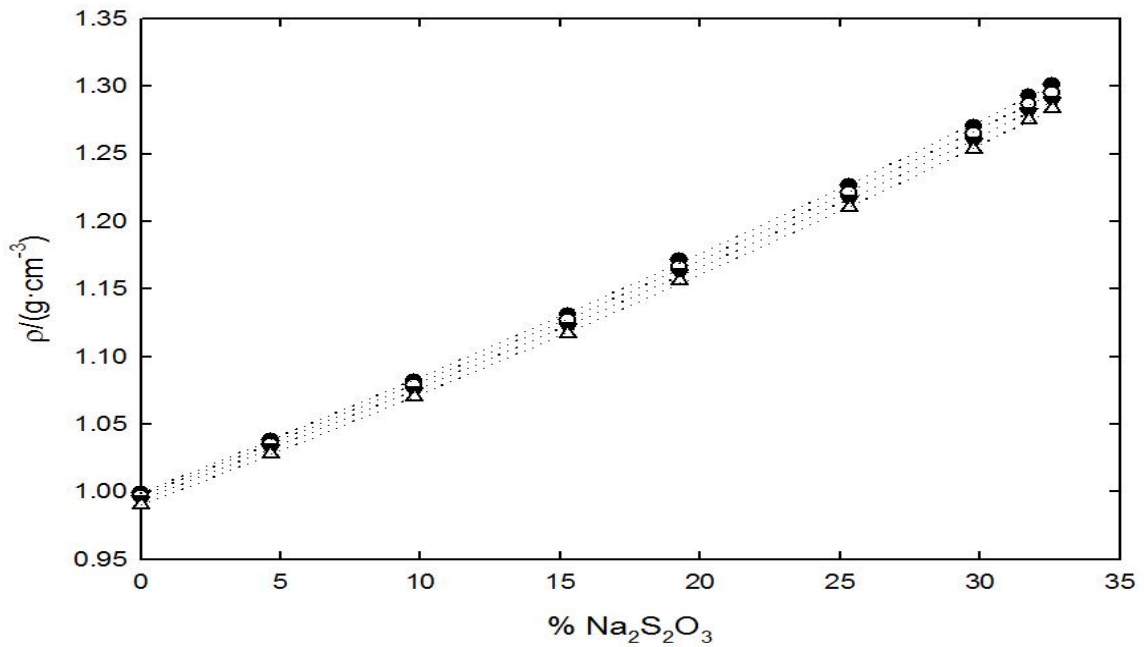


Figura G-76. Densidad para el sistema binario $\text{Na}_2\text{S}_2\text{O}_3$ (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

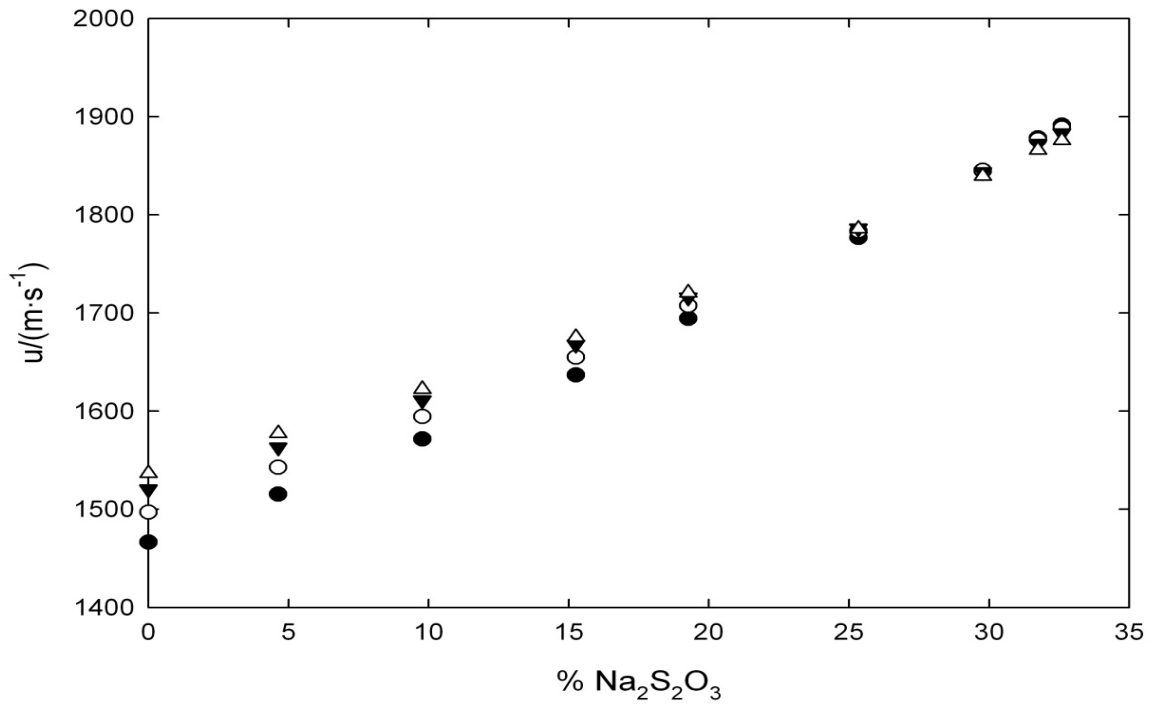


Figura G-77. Velocidad del sonido para el sistema binario Na₂S₂O₃ (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K

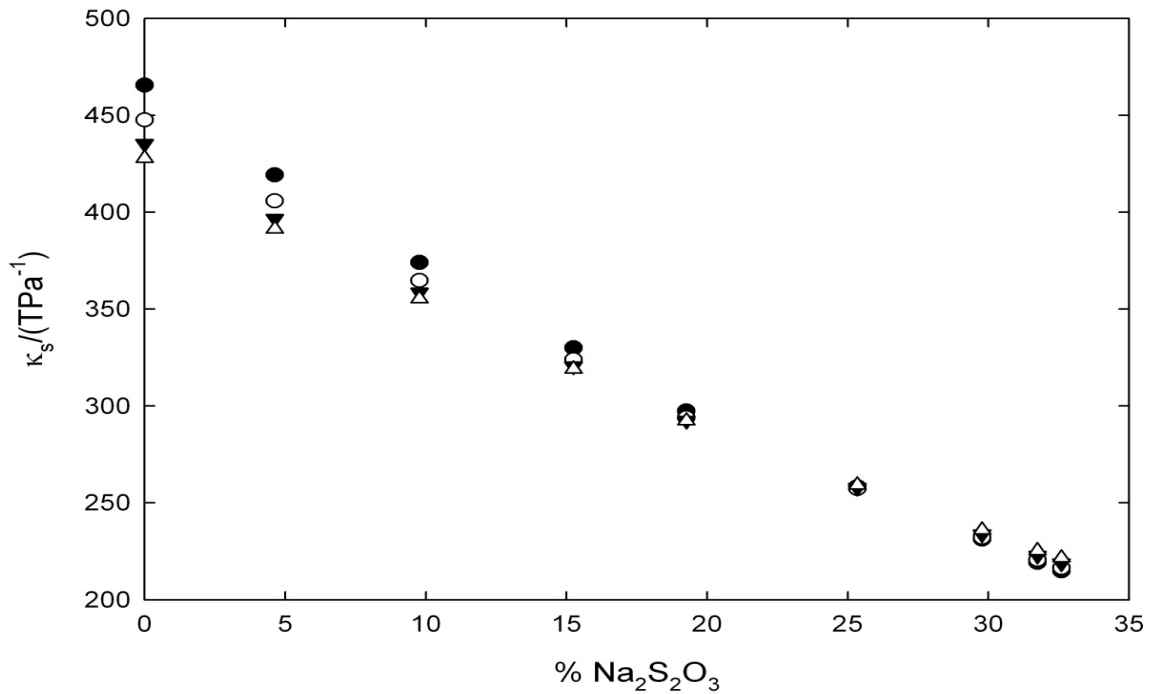


Figura G-78. Compresibilidad isoentrópica para el sistema binario Na₂S₂O₃ (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K

G.1.3.5. K_2HPO_4 – agua

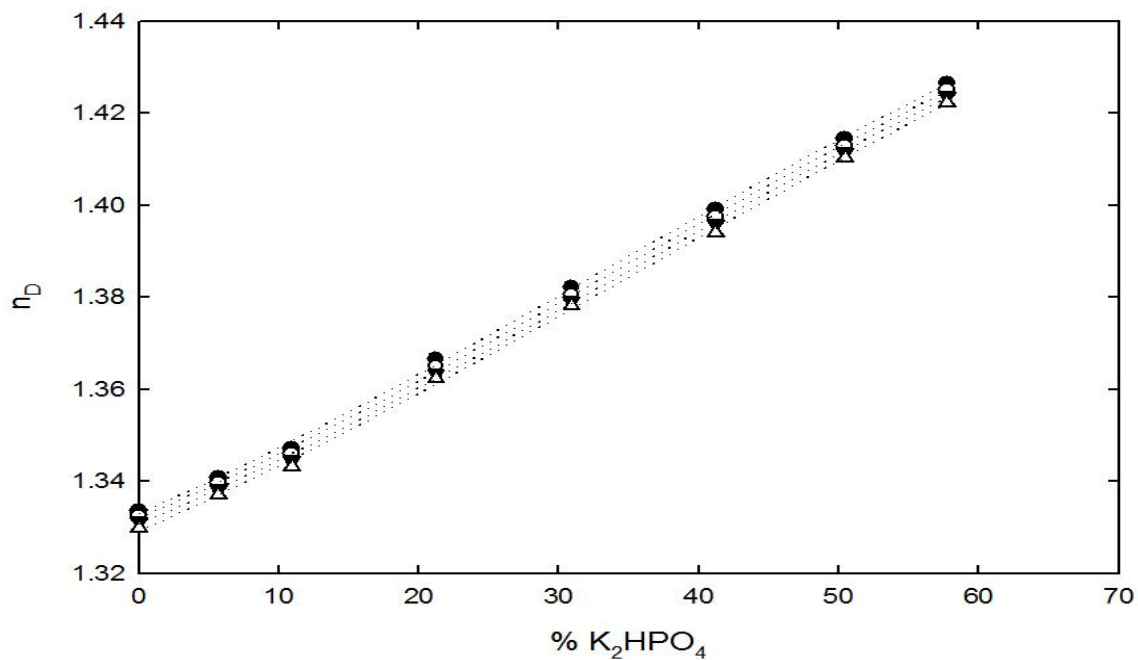


Figura G-79. Índice de refracción para el sistema binario K_2HPO_4 (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

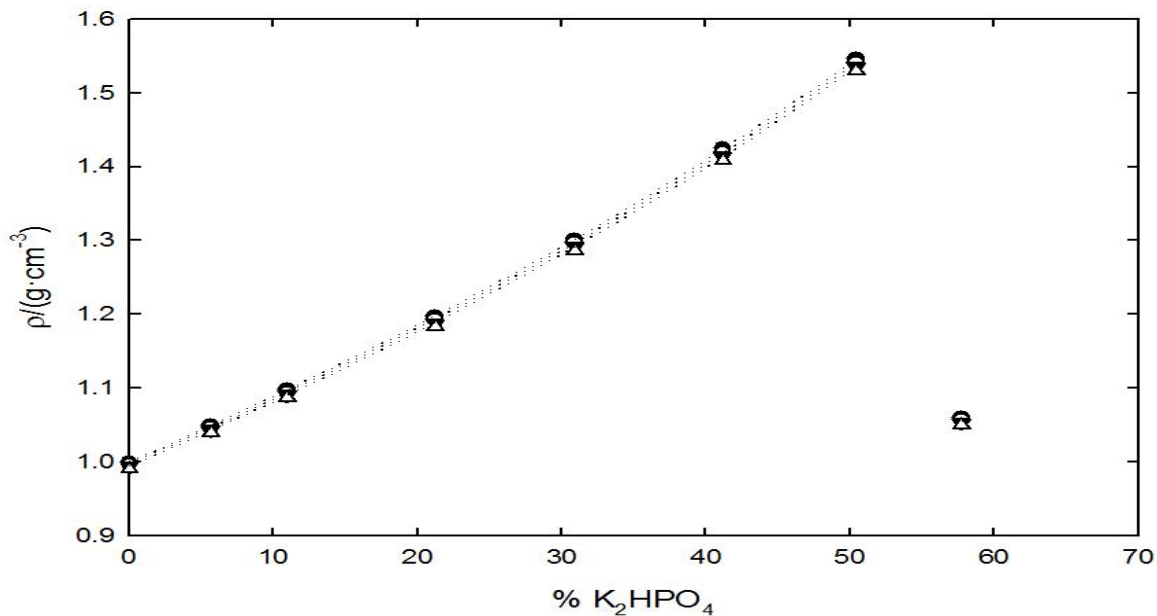


Figura G-80. Densidad para el sistema binario K_2HPO_4 (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K

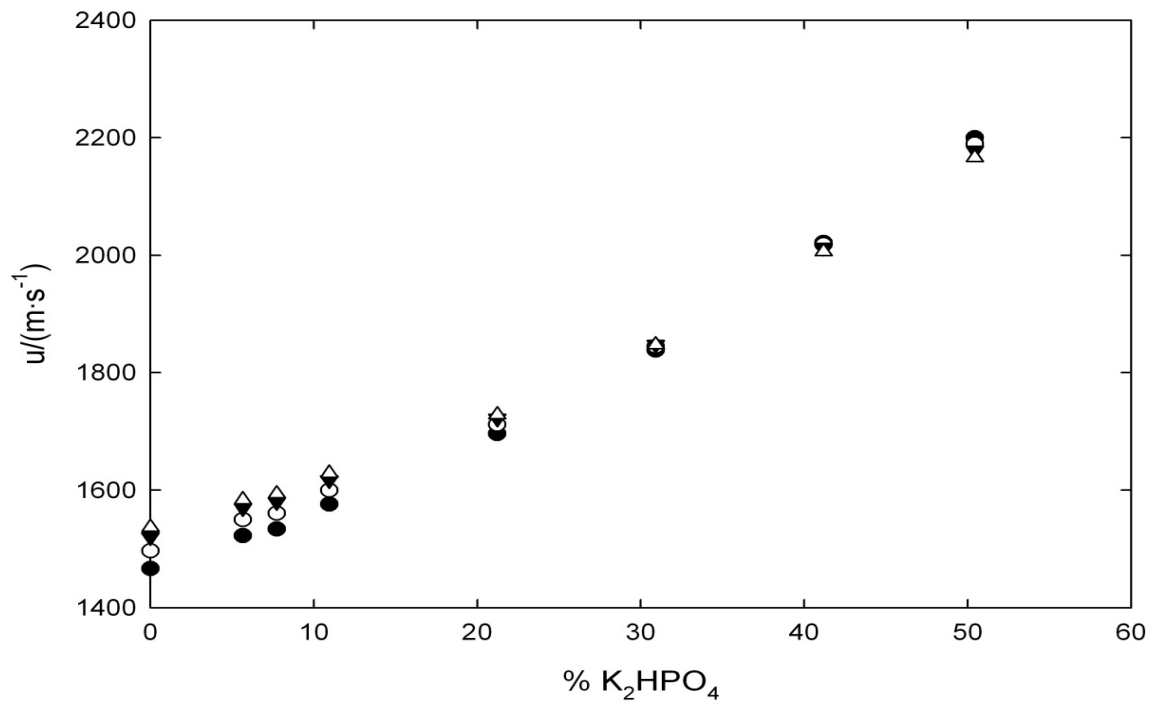


Figura G-81. Velocidad del sonido para el sistema binario K₂HPO₄ (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K

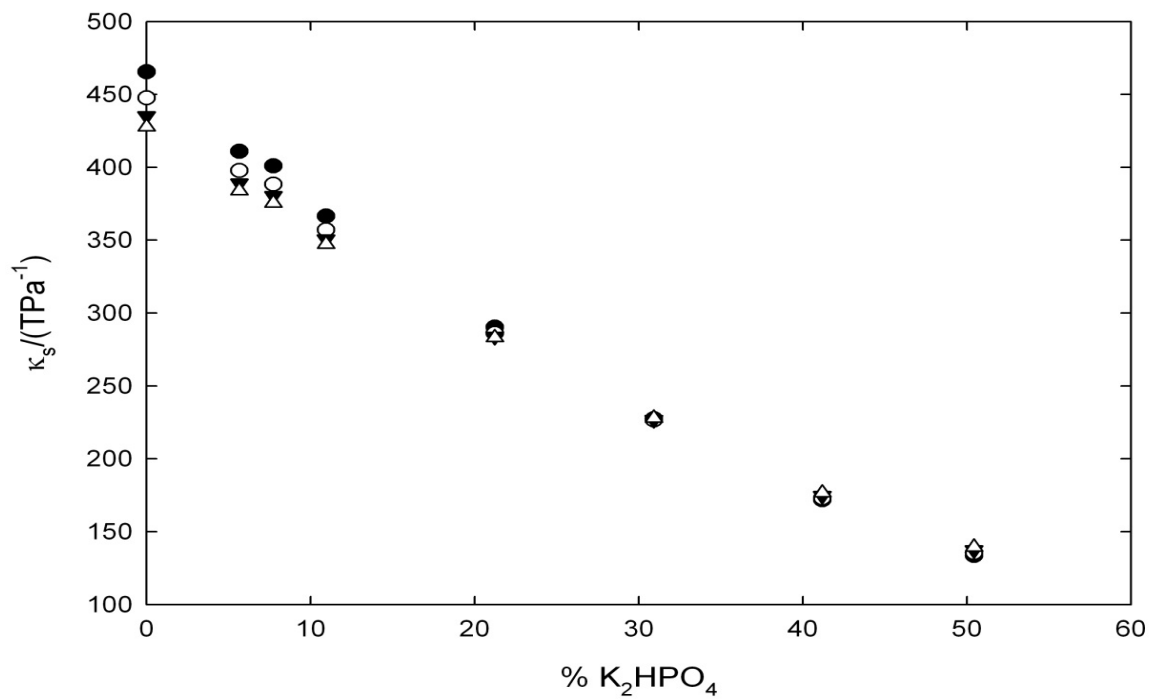


Figura G-82. Compresibilidad isoentrópica para el sistema binario K₂HPO₄ (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K

G.1.3.6. K_3PO_4 – agua

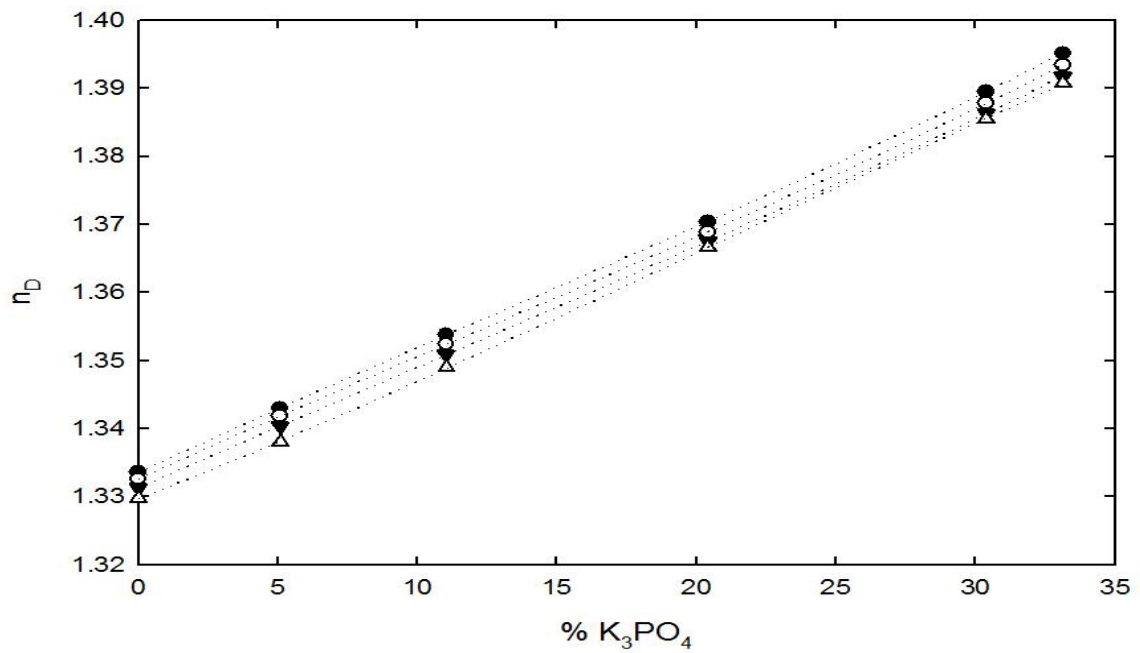


Figura G-83. Índice de refracción para el sistema binario K_3PO_4 (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K

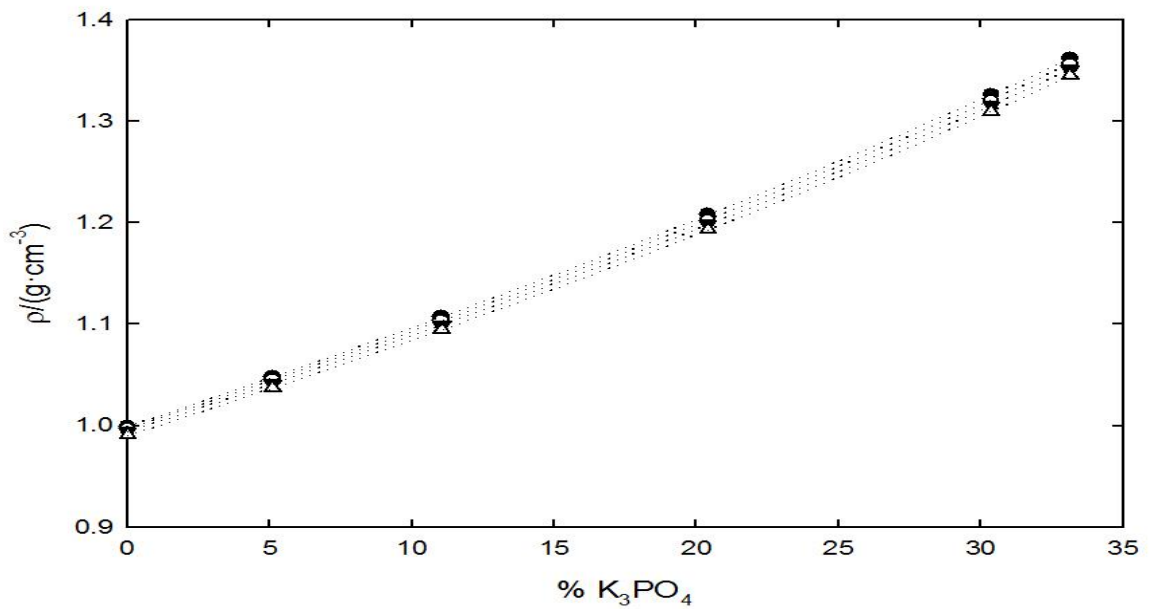


Figura G-84. Densidad para el sistema binario K_3PO_4 (1) – agua (2) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K

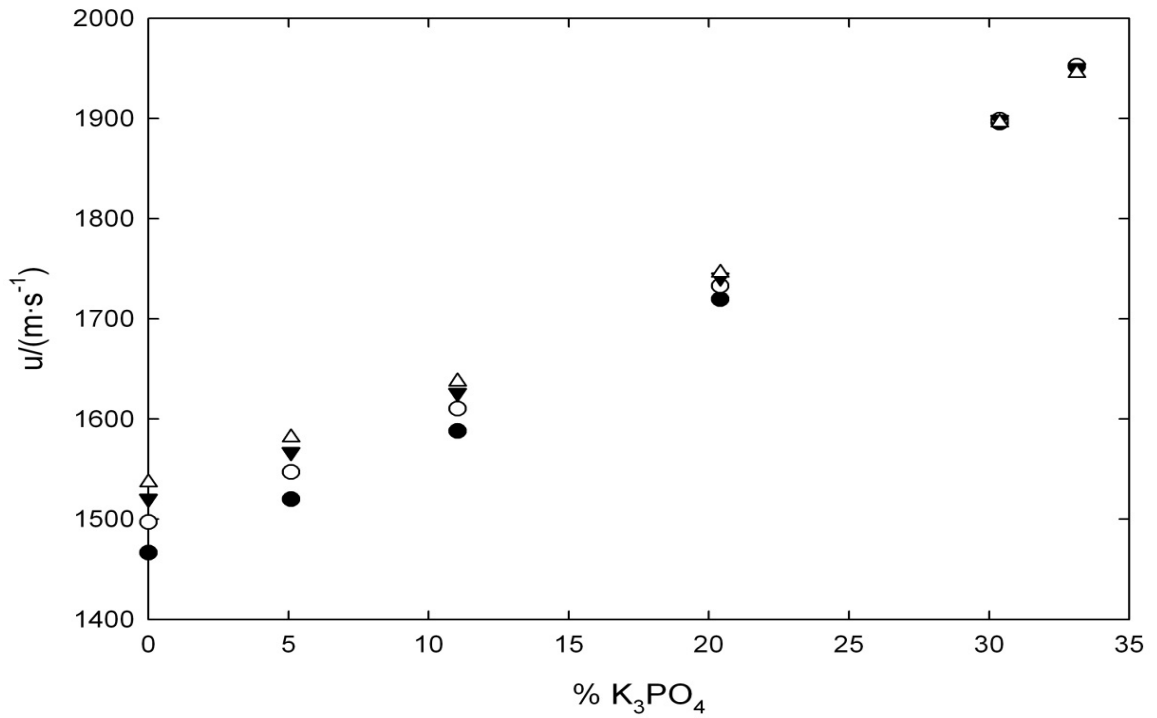


Figura G-85. Velocidad del sonido para el sistema binario K_3PO_4 (1) – agua (2) a, ● $T=288.15$ K; ○, $T = 298.15$ K; ▼, $T = 308.15$ K; △, $T = 318.15$ K

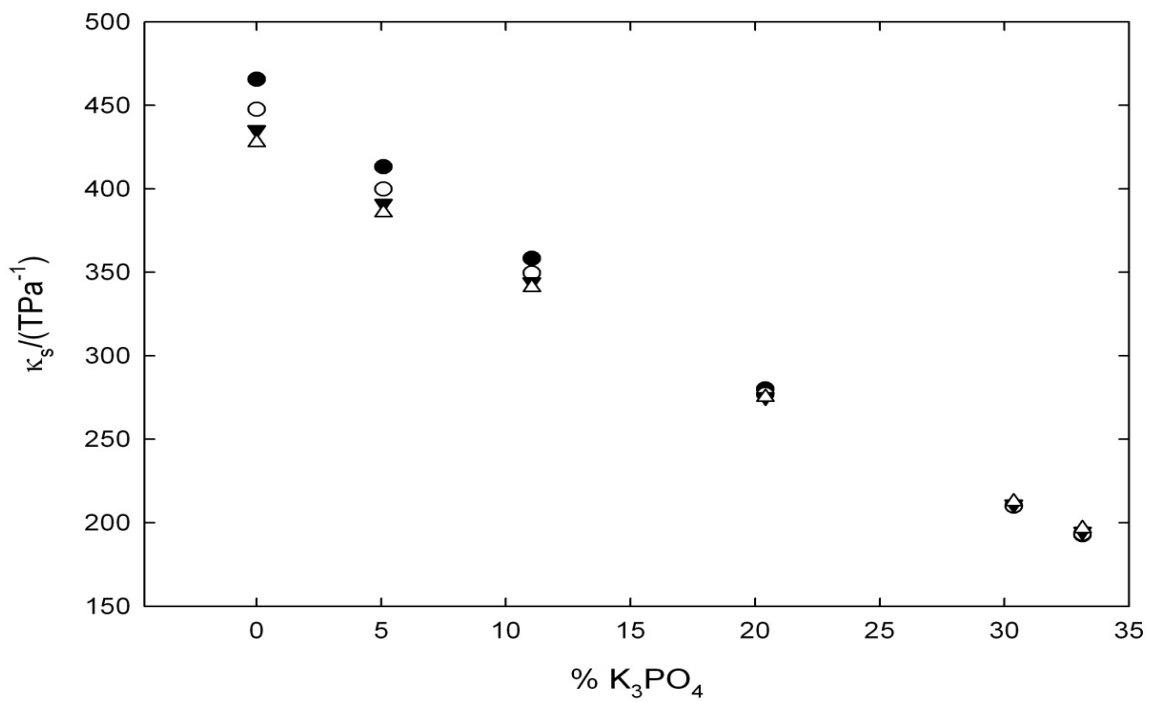


Figura G-86. Compresibilidad isoentrópica para el sistema binario K_3PO_4 (1) – agua (2) a, ● $T=288.15$ K; ○, $T = 298.15$ K; ▼, $T = 308.15$ K; △, $T = 318.15$ K

G.1.4. Gráficas sistemas ternarios orgánico – orgánico

G.1.4.1. Etanol – *n*-hexano – *n*-heptano

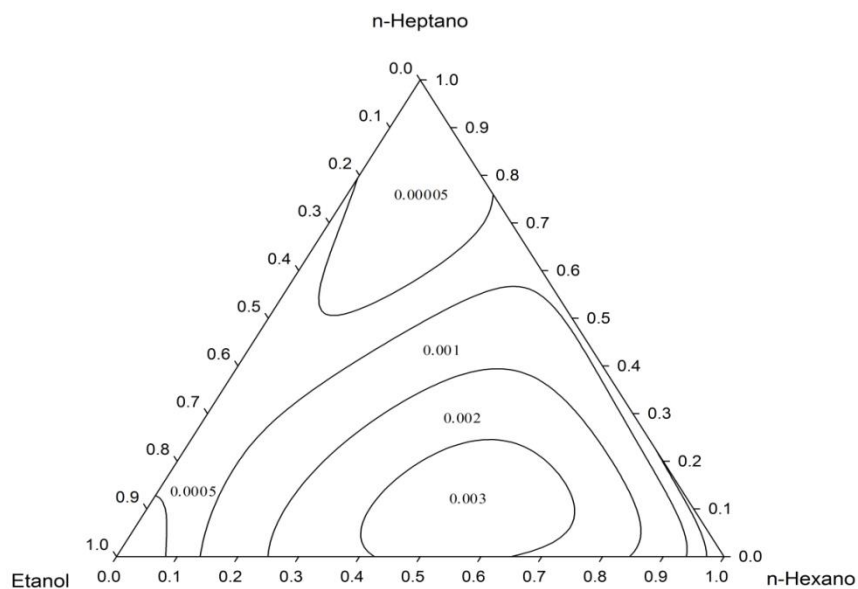


Figura G-87. Isolíneas de la variación del índice de refracción para el sistema ternario Etanol (1) – *n*-hexano (2) – *n*-heptano (3) a $T = 298.15$ K.

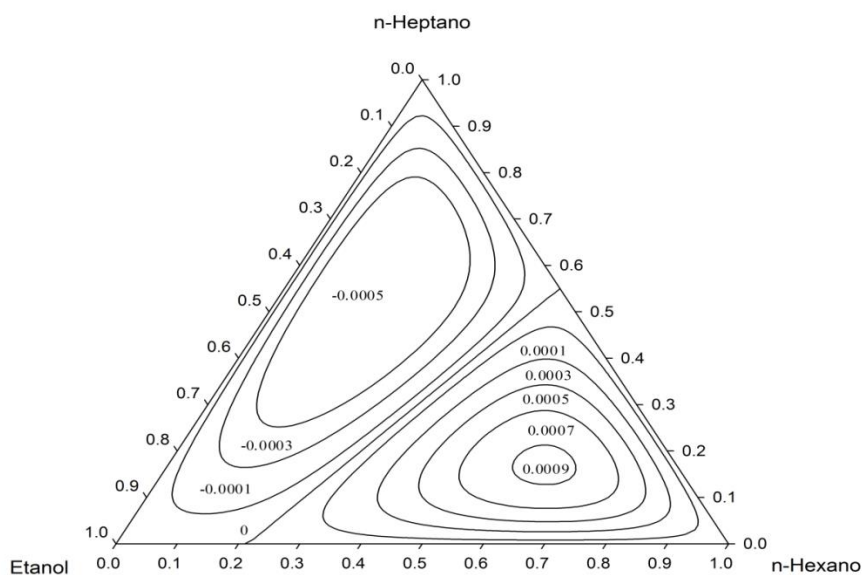


Figura G-88. Isolíneas de la contribución ternaria de la variación del índice de refracción para el sistema ternario Etanol (1) – *n*-hexano (2) – *n*-heptano (3) a $T = 298.15$ K.

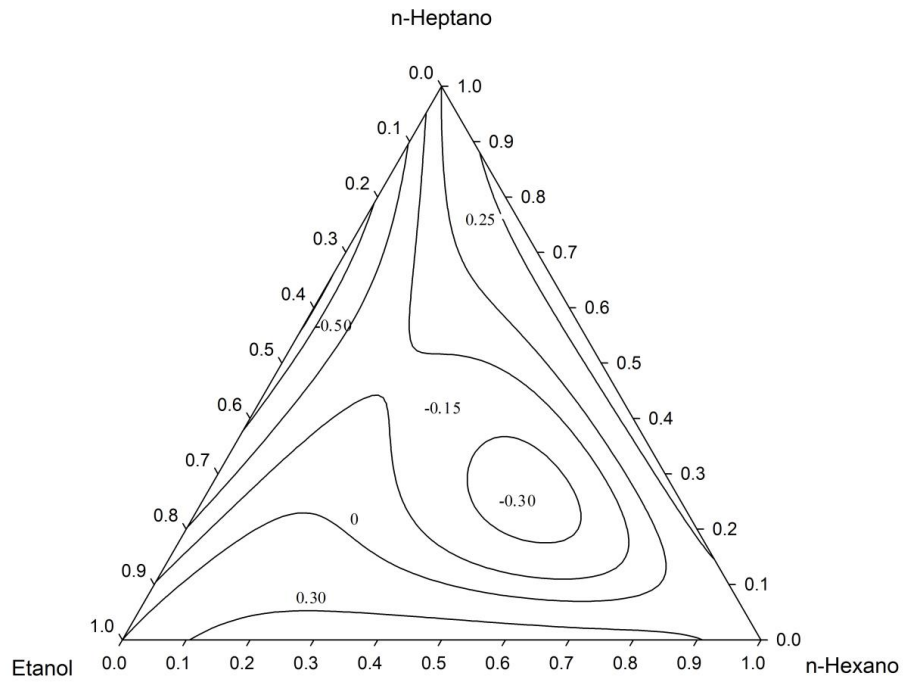


Figura G-89. Isolíneas del volumen de exceso para el sistema ternario Etanol (1) – *n*-hexano (2) – *n*-heptano (3) a $T = 298.15\text{ K}$

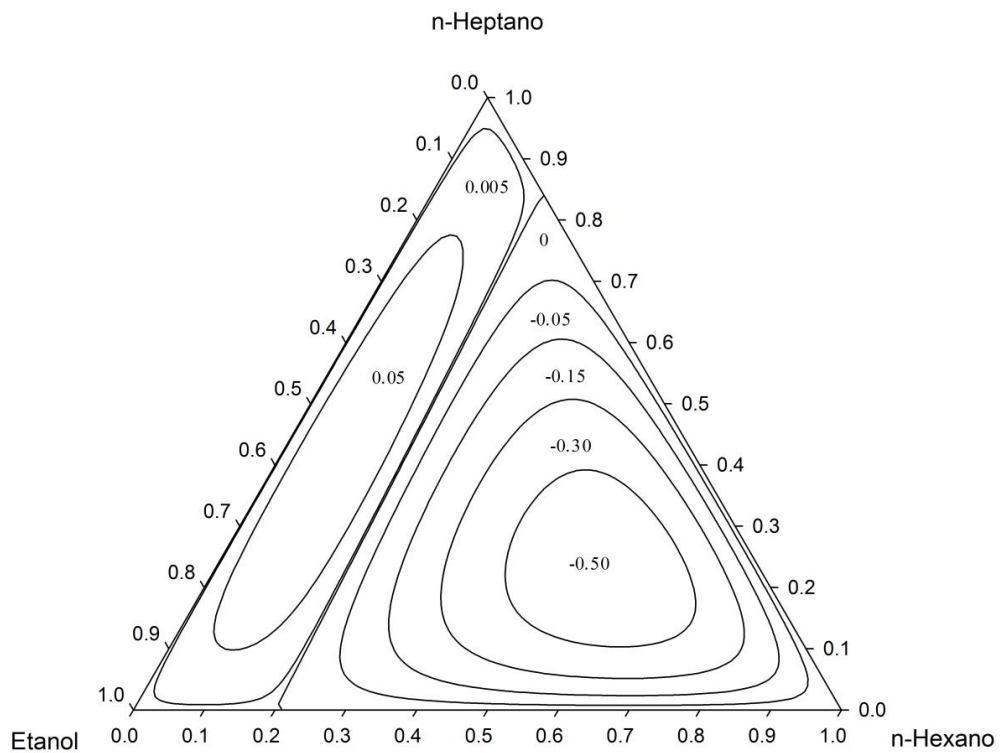


Figura G-90. Isolíneas de la contribución ternaria del volumen de exceso para el sistema ternario Etanol (1) – *n*-hexano (2) – *n*-heptano (3) a $T = 298.15\text{ K}$

G.1.4.2. Etanol – *n*-hexano – *n*-octano

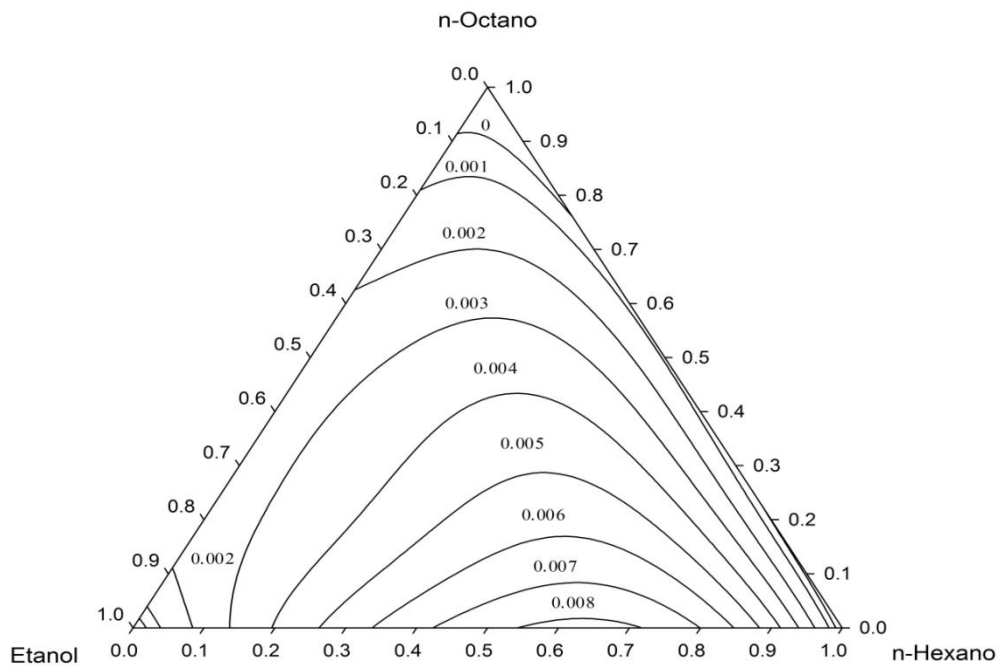


Figura G-93. Isolíneas de la variación del índice de refracción para el sistema ternario Etanol (1) – *n*-hexano (2) – *n*-octano (3) a T = 298.15 K.

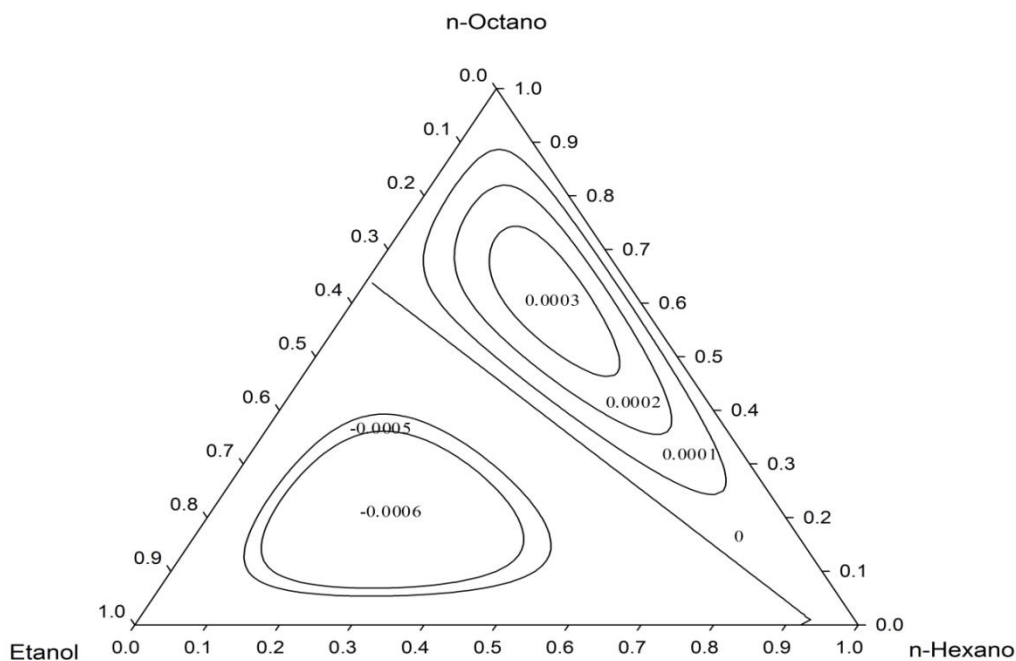


Figura G-94. Isolíneas de la contribución ternaria de la variación del índice de refracción para el sistema ternario Etanol (1) – *n*-hexano (2) – *n*-octano (3) a T = 298.15 K.

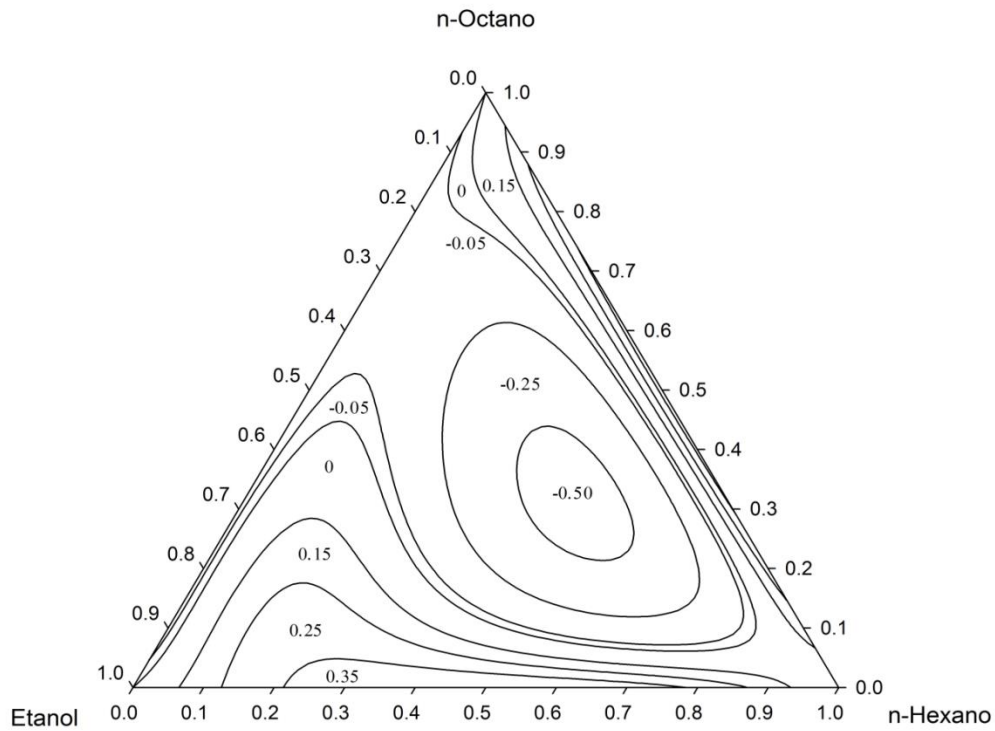


Figura G-95. Isolíneas del volumen de exceso para el sistema ternario Etanol (1) – *n*-hexano (2) – *n*-octano (3) a T = 298.15 K

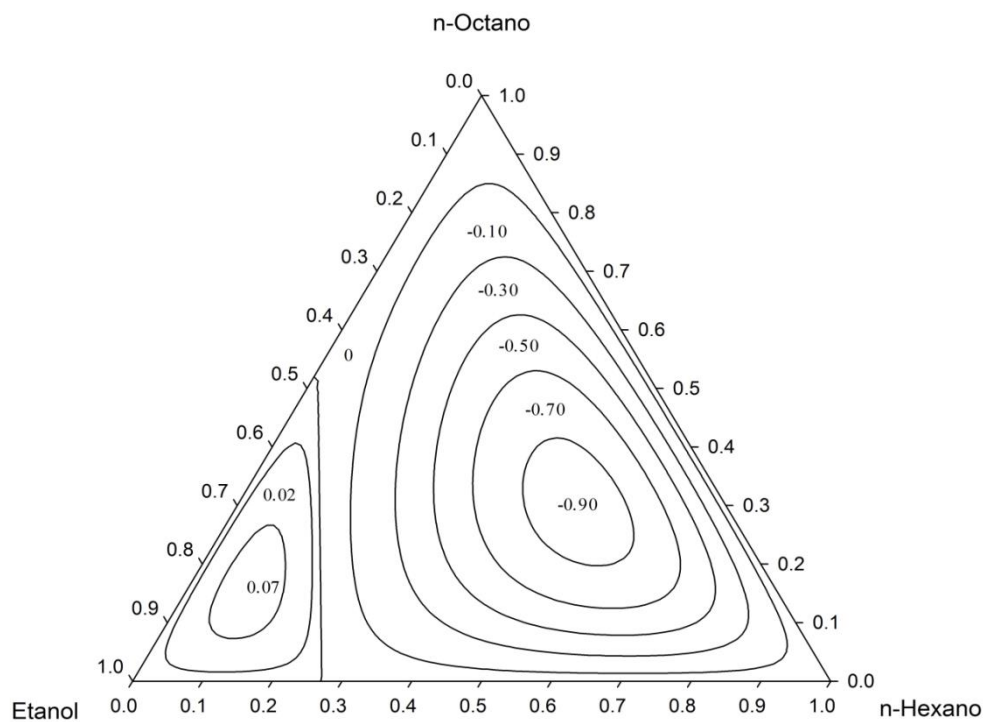


Figura G-96. Isolíneas de la contribución ternaria del volumen de exceso para el sistema ternario Etanol (1) – *n*-hexano (2) – *n*-octano (3) a T = 298.15 K

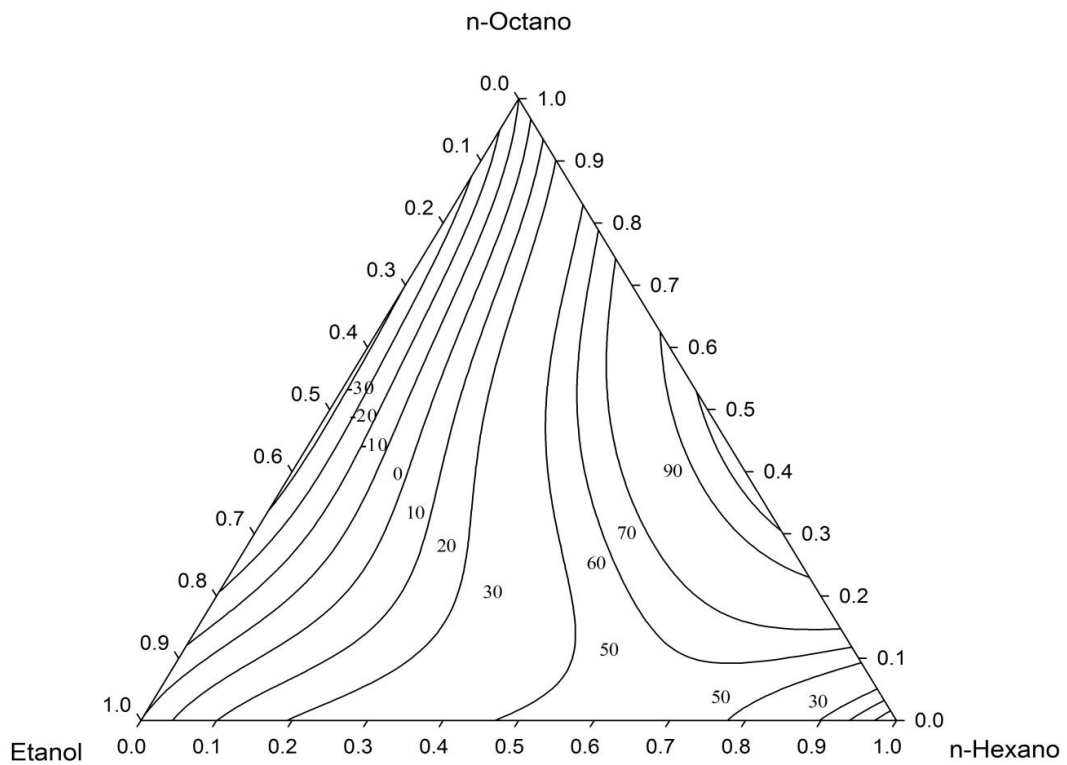


Figura G-97. Isolíneas de la compresibilidad isoentrópica para el sistema ternario Etanol (1) – *n*-hexano (2) – *n*-octano (3) a $T = 298.15 \text{ K}$

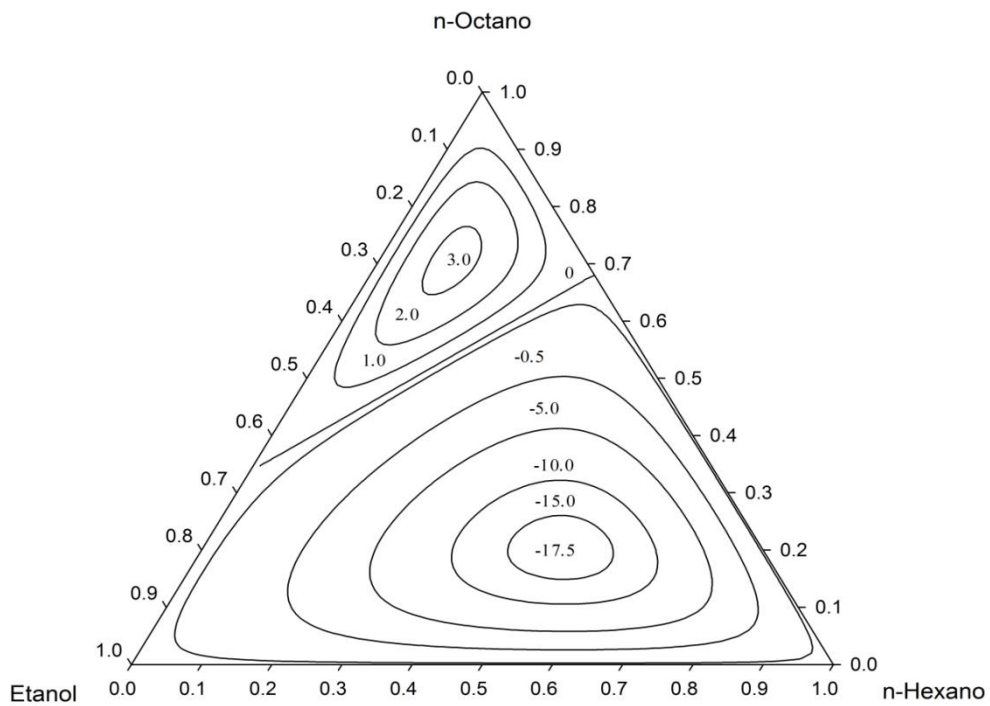


Figura G-98. Isolíneas de la contribución ternaria de la compresibilidad isoentrópica para el sistema ternario Etanol (1) - *n*-hexano (2) – *n*-octano (3) a $T = 298.15 \text{ K}$

G.1.4.3. Etanol – *n*-hexano – *n*-nonano

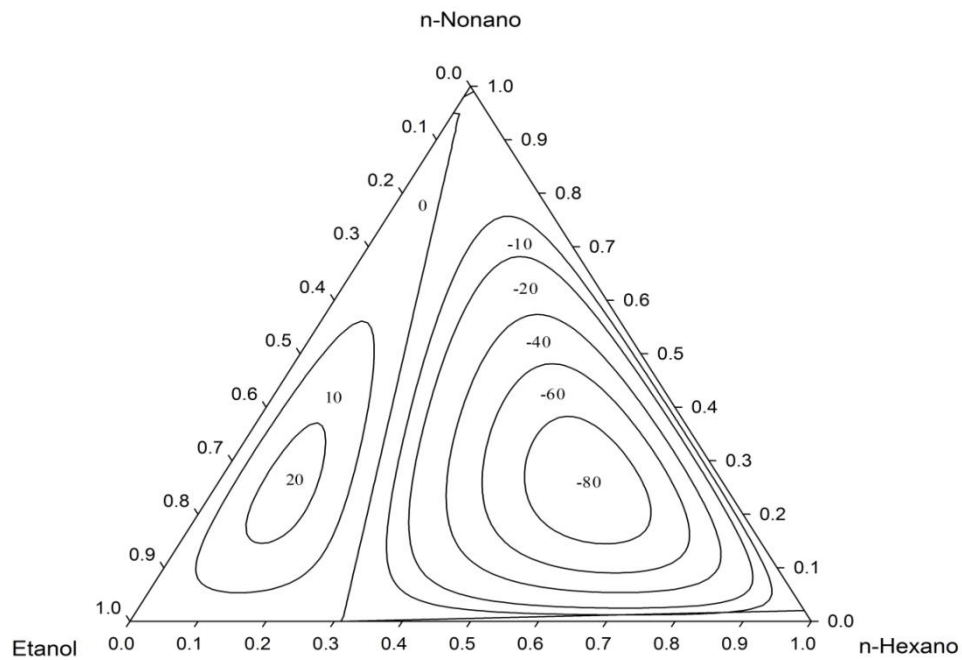


Figura G-99. Isolíneas de la variación del índice de refracción para el sistema ternario Etanol (1) – *n*-hexano (2) – *n*-nonano (3) a T = 298.15 K.

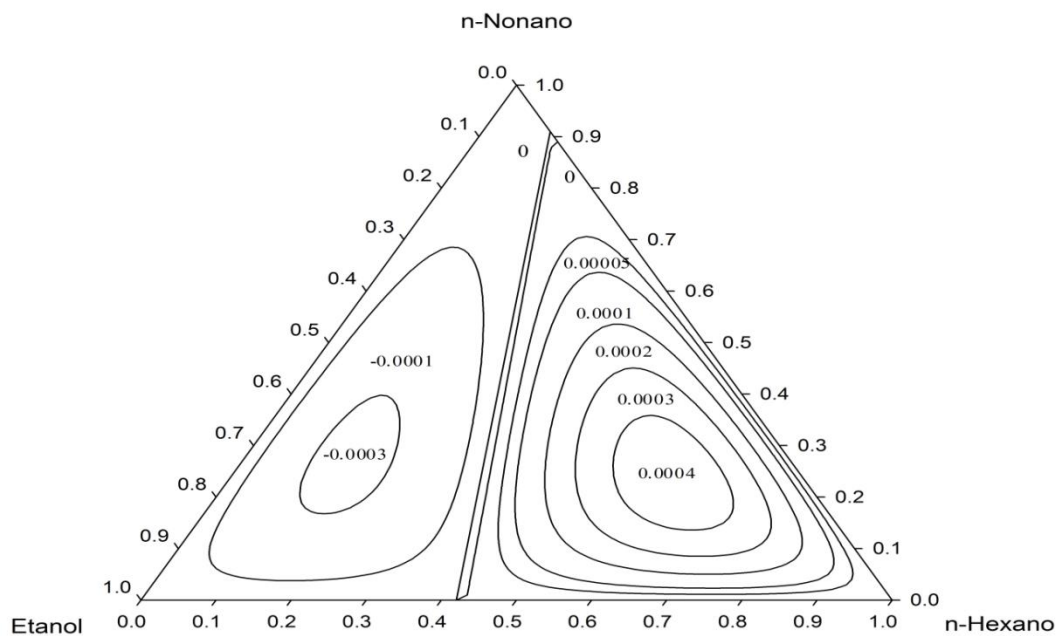


Figura G-100. Isolíneas de la contribución ternaria de la variación del índice de refracción para el sistema ternario Etanol (1) – *n*-hexano (2) – *n*-nonano (3) a T = 298.15 K.

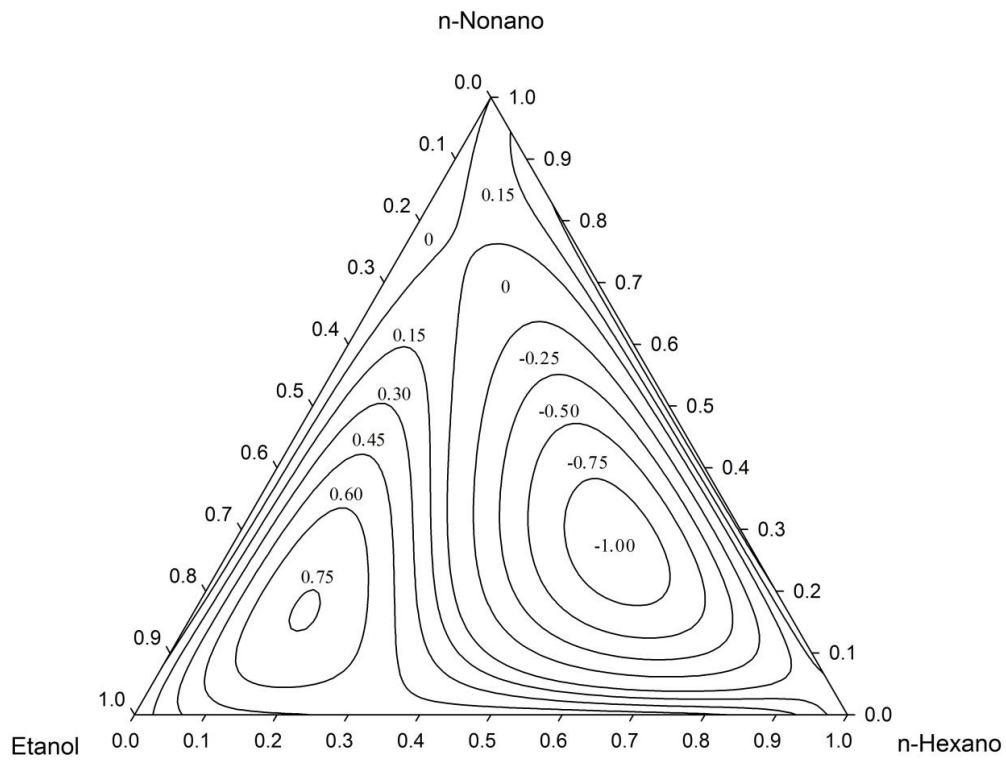


Figura G-101. Isolíneas del volumen de exceso para el sistema ternario Etanol (1) – *n*-hexano (2) – *n*-nonano (3) a T = 298.15 K

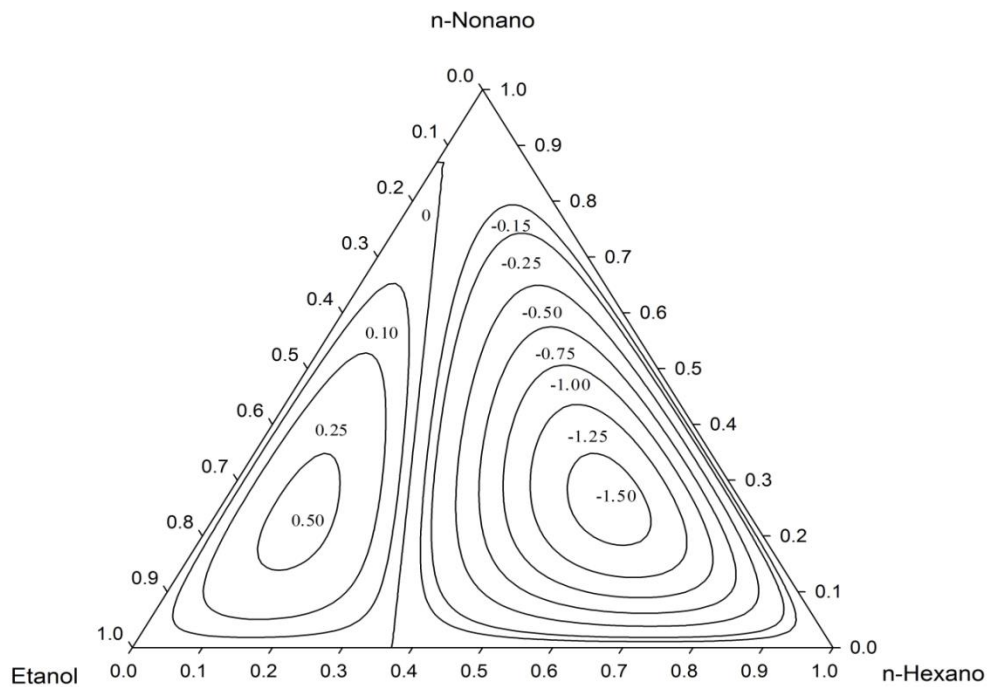


Figura G-102. Isolíneas de la contribución ternaria del volumen de exceso para el sistema ternario Etanol (1) – *n*-hexano (2) – *n*-nonano (3) a T = 298.15 K

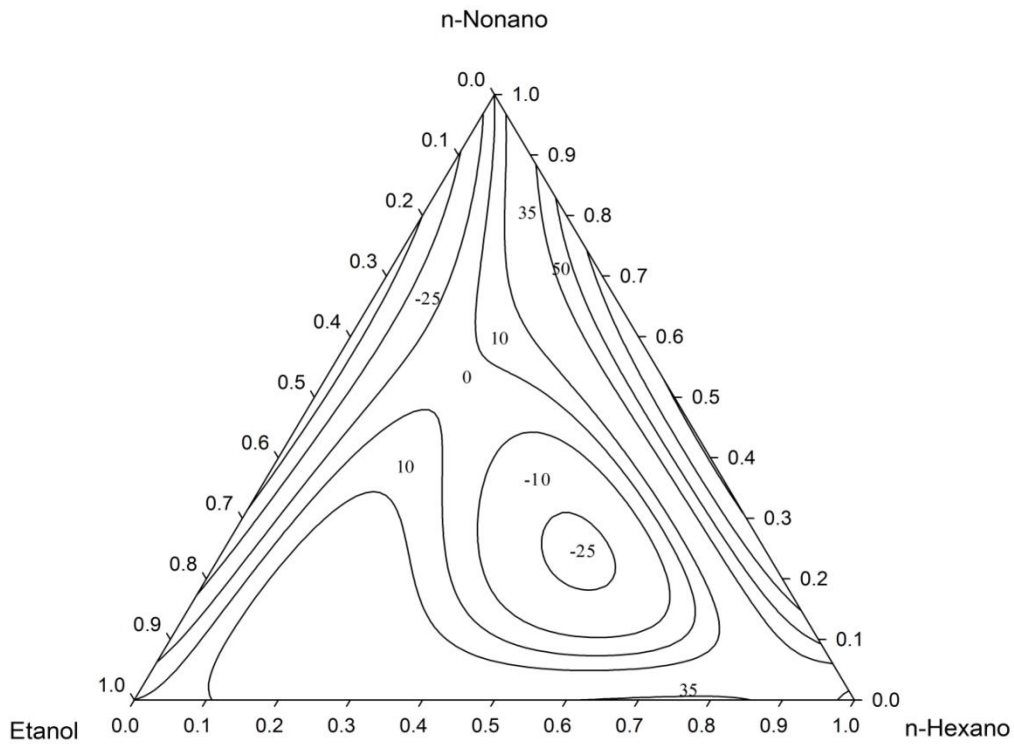


Figura G-103. Isolíneas de la compresibilidad isoentrópica para el sistema ternario Etanol (1) – *n*-hexano (2) – *n*-nonano (3) a T = 298.15 K

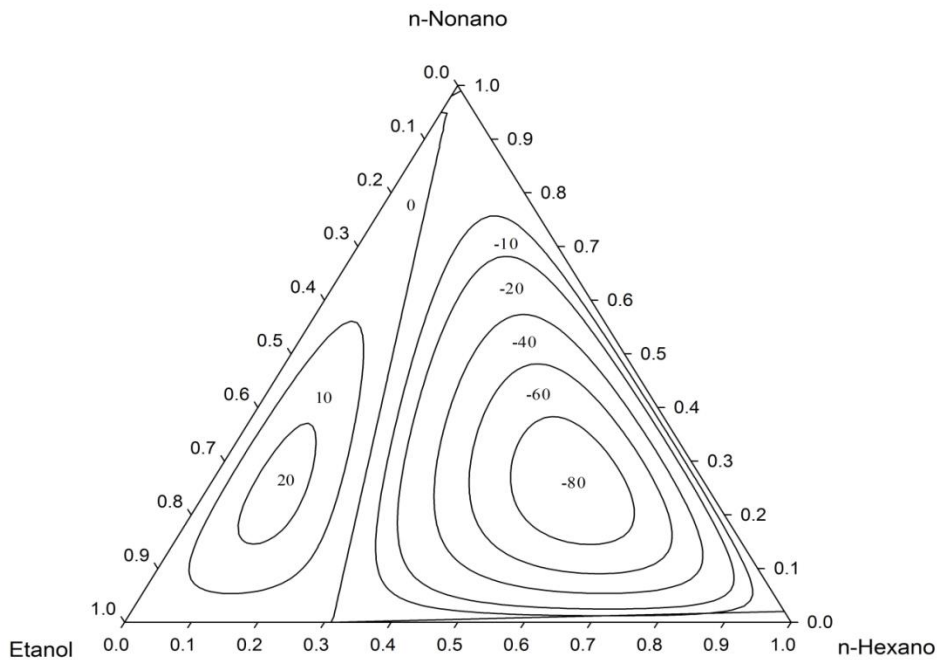


Figura G-104. Isolíneas de la contribución ternaria de la compresibilidad isoentrópica para el sistema ternario Etanol (1) - *n*-hexano (2) – *n*-nonano (3) a T = 298.15 K

G.1.5. Gráficas sistemas ternarios orgánico – acuoso

G.1.5.1. Etanol – *n*-hexano – agua

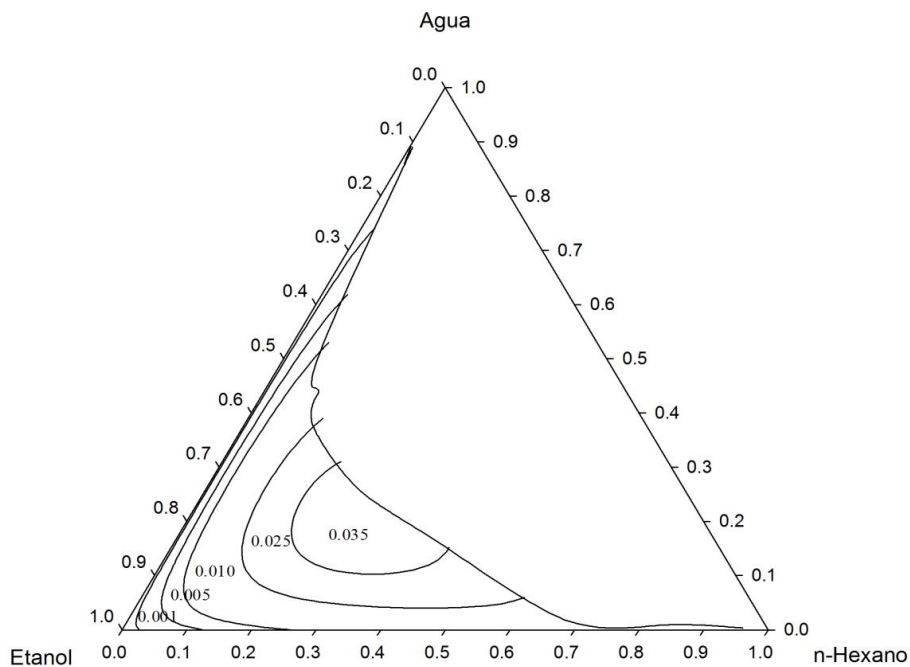


Figura G-105. Isolíneas de la variación del índice de refracción para el sistema ternario Etanol (1) – *n*-hexano (2) – agua (3) a T = 298.15 K.

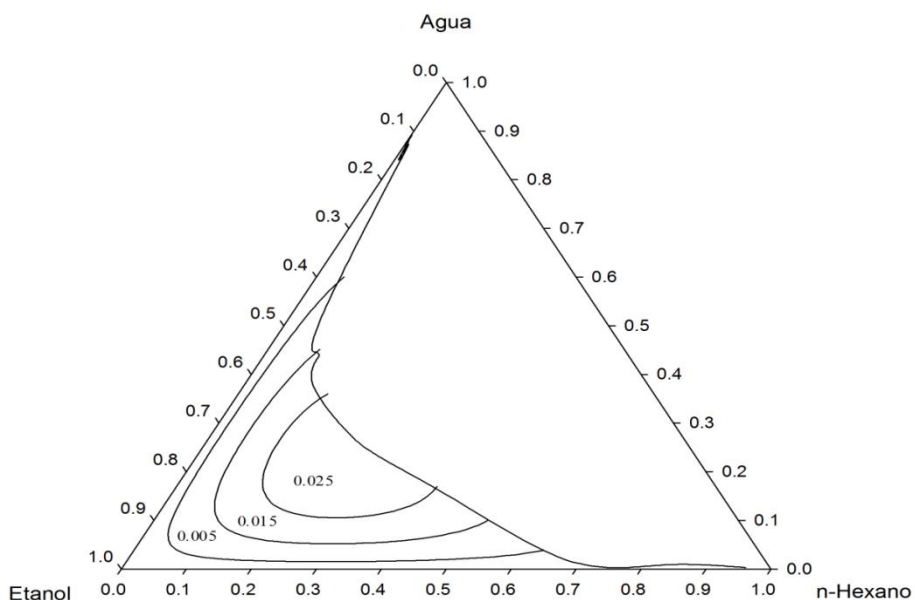


Figura G-106. Isolíneas de la contribución ternaria de la variación del índice de refracción para el sistema ternario Etanol (1) – *n*-hexano (2) – agua (3) a T = 298.15 K.

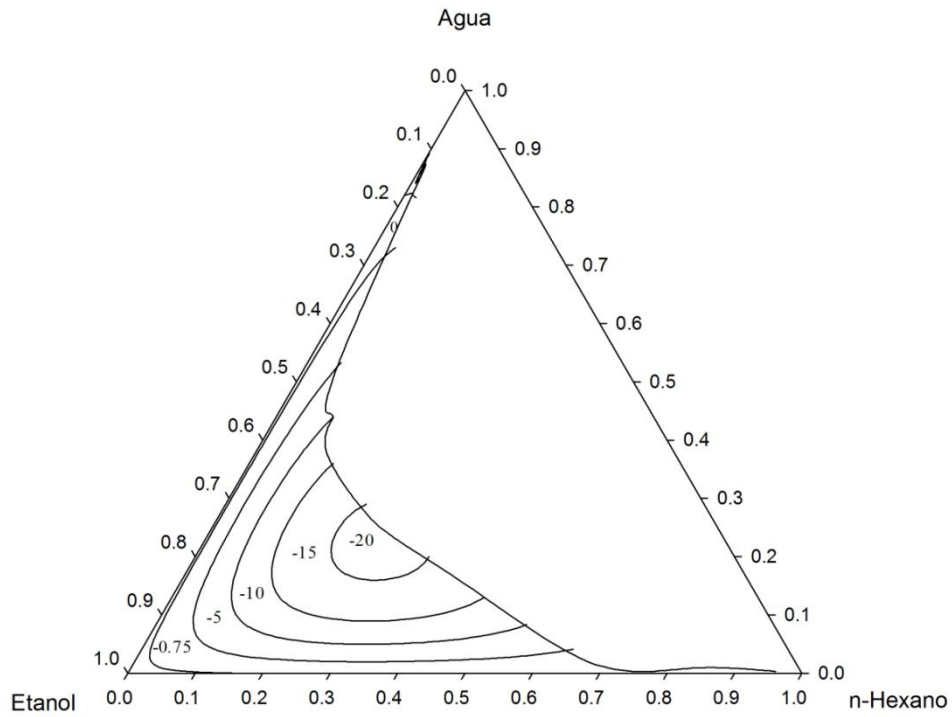


Figura G-107. Isolíneas del volumen de exceso para el sistema ternario Etanol (1) – *n*-hexano (2) – agua (3) a T = 298.15 K

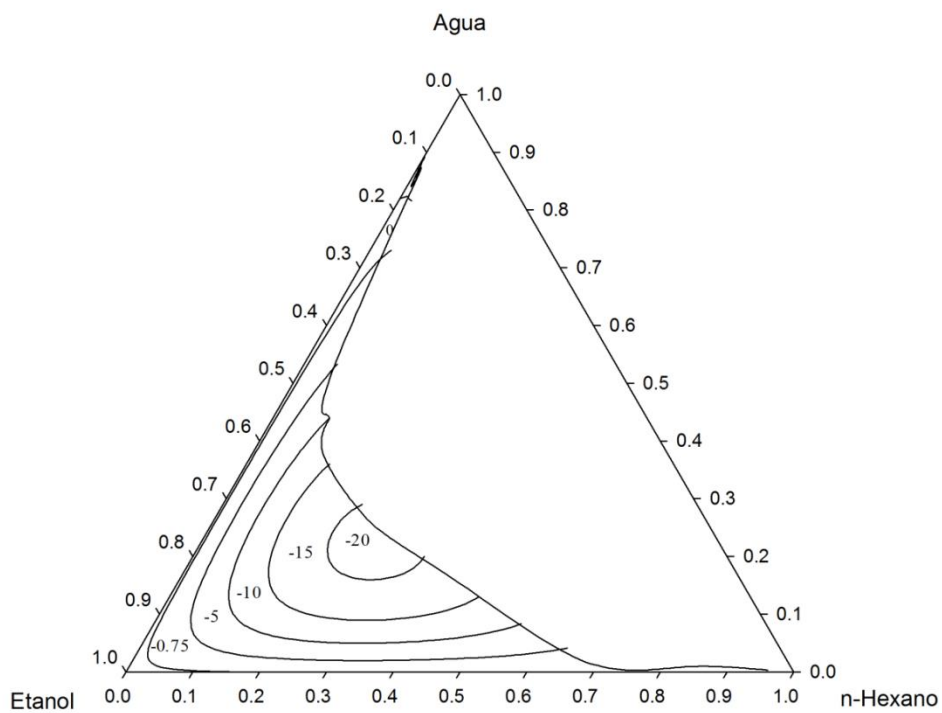


Figura G-108. Isolíneas de la contribución ternaria del volumen de exceso para el sistema ternario Etanol (1) – *n*-hexano (2) – agua (3) a T = 298.15 K

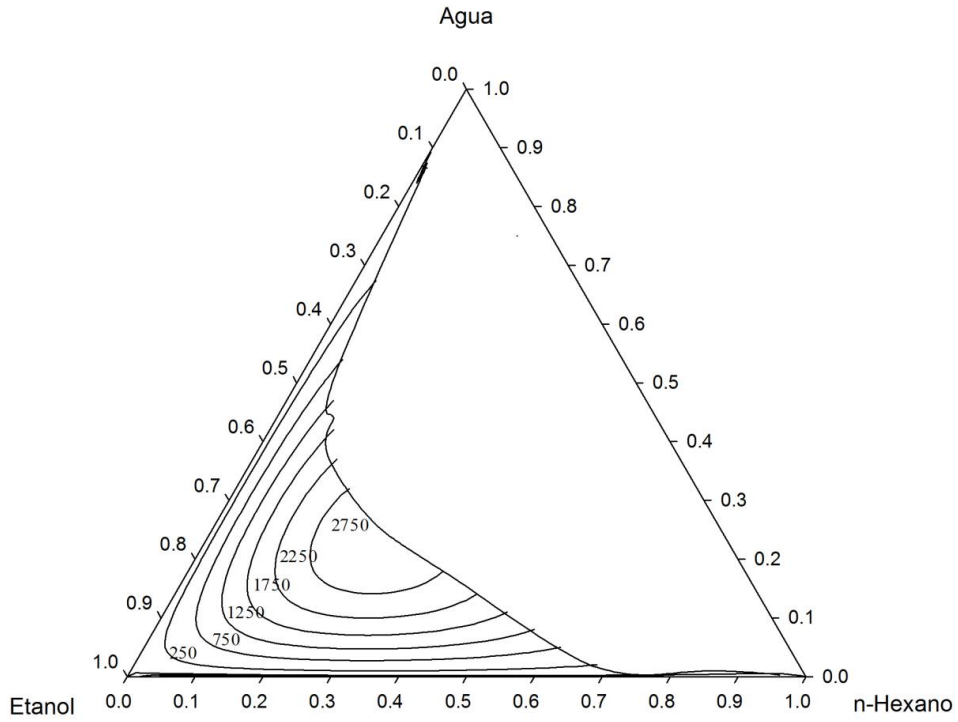


Figura G-109. Isolíneas de la compresibilidad isoentrópica para el sistema ternario Etanol (1) – *n*-hexano (2) – agua (3) a $T = 298.15 \text{ K}$

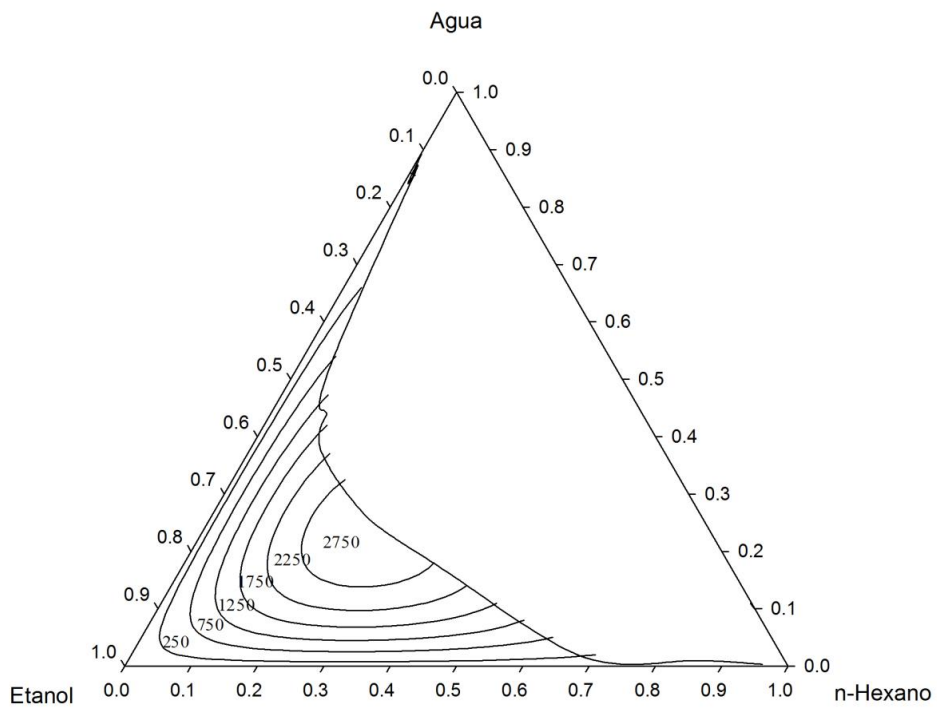


Figura G-110. Isolíneas de la contribución ternaria de la compresibilidad isoentrópica para el sistema ternario Etanol (1) - *n*-hexano (2) – agua (3) a $T = 298.15 \text{ K}$

G.1.5.2. Etanol – *n*-heptano – agua

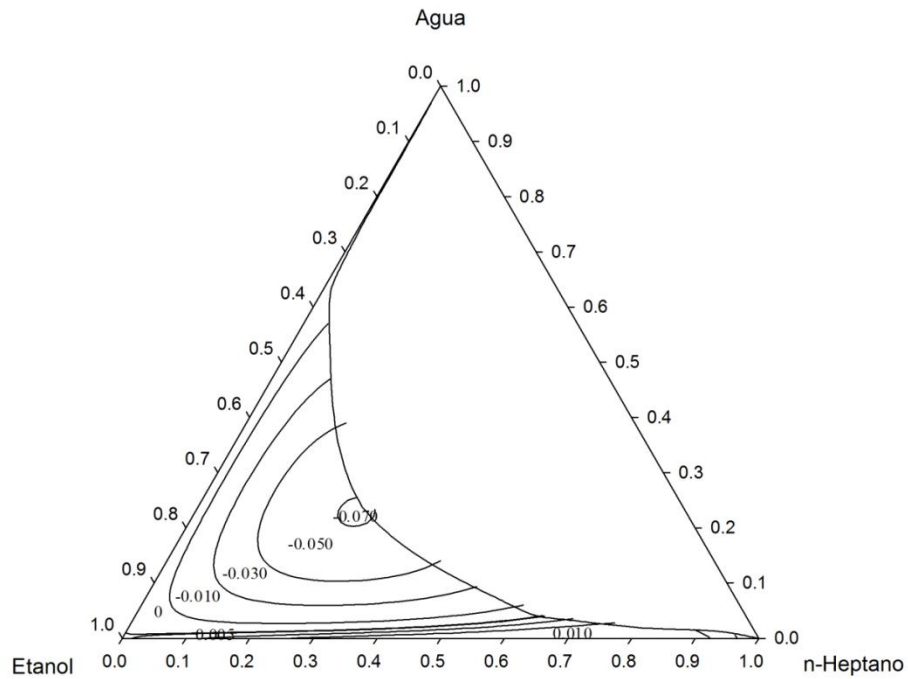


Figura G-111. Isolíneas de la variación del índice de refracción para el sistema ternario Etanol (1) – *n*-heptano (2) – agua (3) a T = 298.15 K.

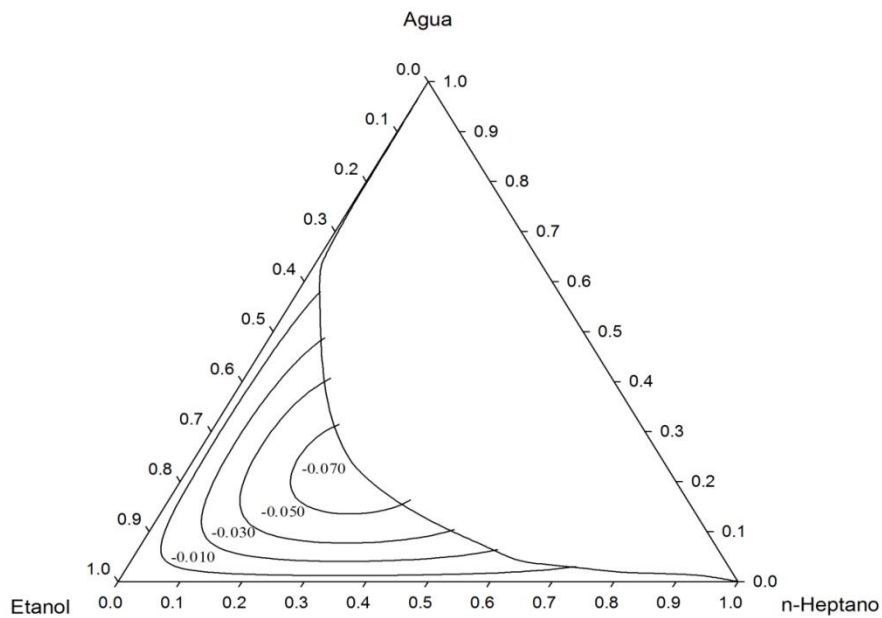


Figura G-112. Isolíneas de la contribución ternaria de la variación del índice de refracción para el sistema ternario Etanol (1) – *n*-heptano (2) – agua (3) a T = 298.15 K.

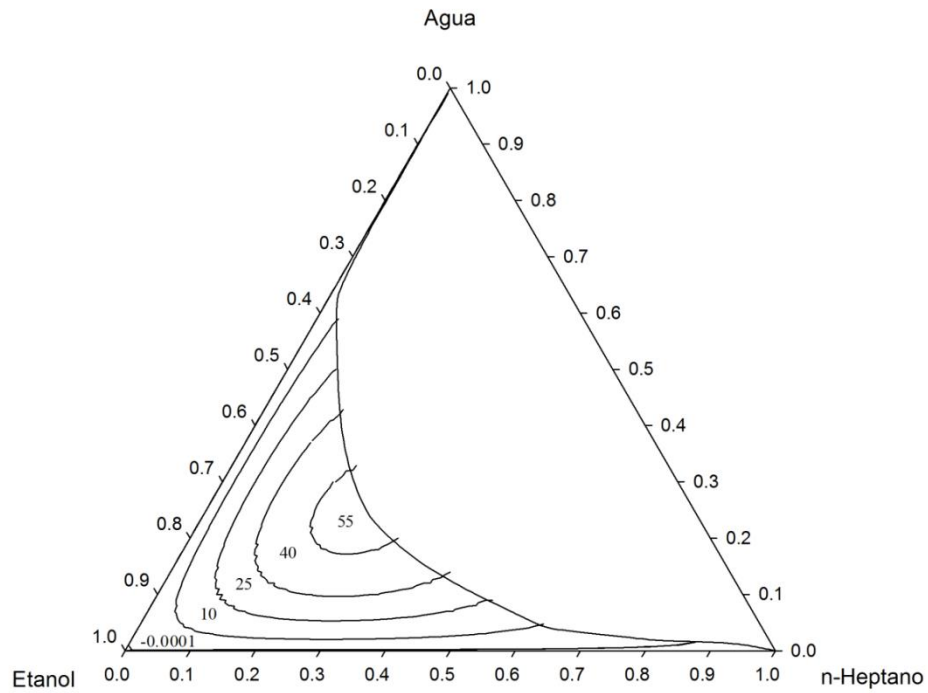


Figura G-113. Isolíneas del volumen de exceso para el sistema ternario Etanol (1) – *n*-heptano (2) – agua (3) a T = 298.15 K

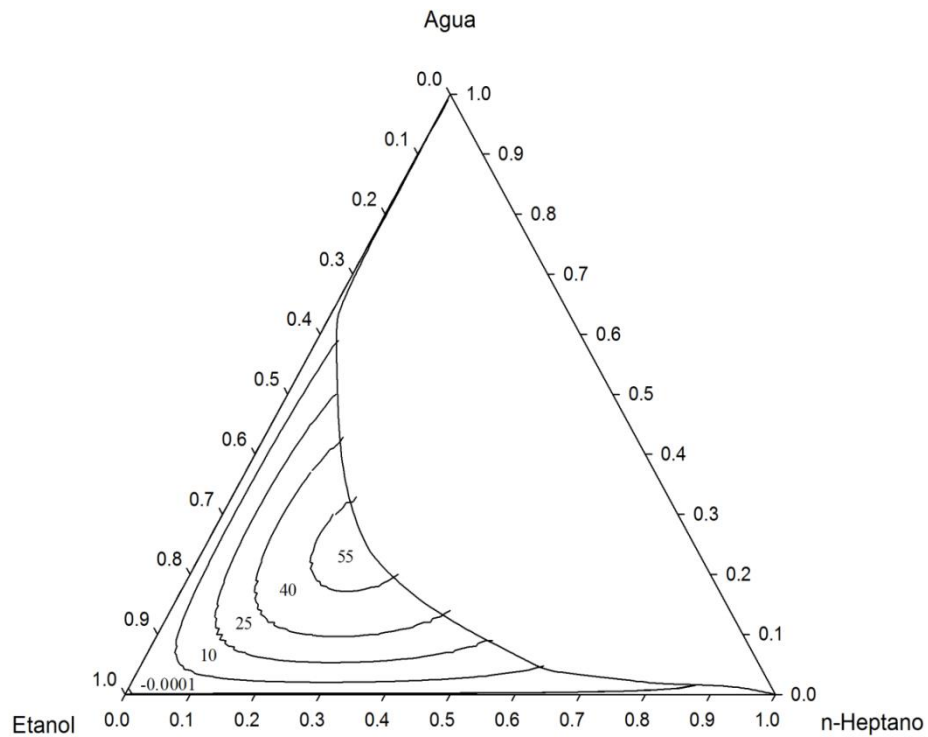


Figura G-114. Isolíneas de la contribución ternaria del volumen de exceso para el sistema ternario Etanol (1) – *n*-heptano (2) – agua (3) a T = 298.15 K

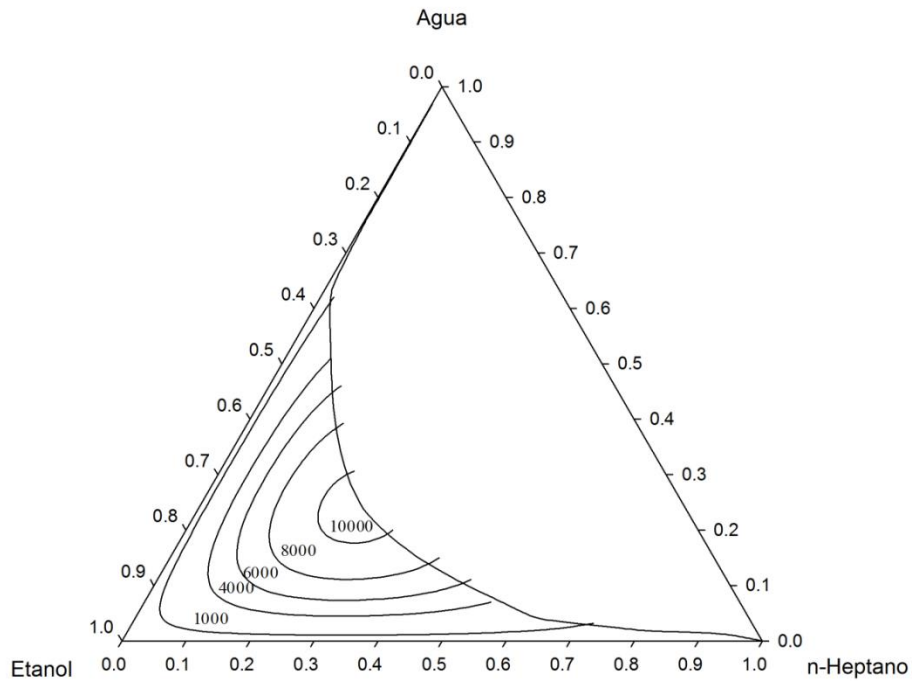


Figura G-115. Isolíneas de la compresibilidad isentrópica para el sistema ternario Etanol (1) – *n*-heptano (2) – agua (3) a $T = 298.15\text{ K}$

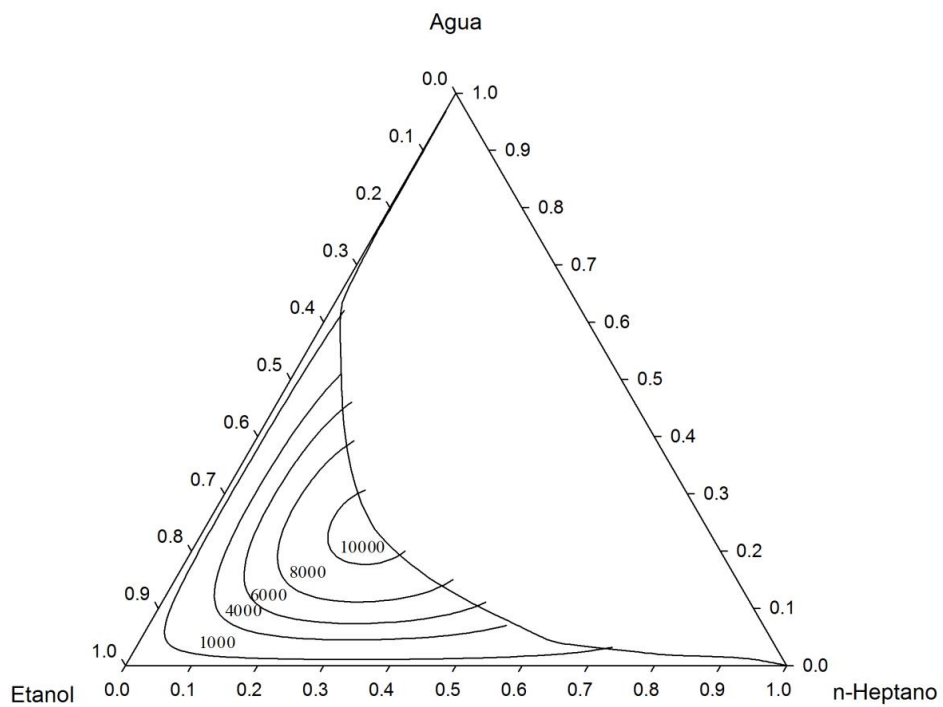


Figura G-116. Isolíneas de la contribución ternaria de la compresibilidad isentrópica para el sistema ternario Etanol (1) - *n*-heptano (2) – agua (3) a $T = 298.15\text{ K}$

G.1.5.3. Etanol – *n*-octano – agua

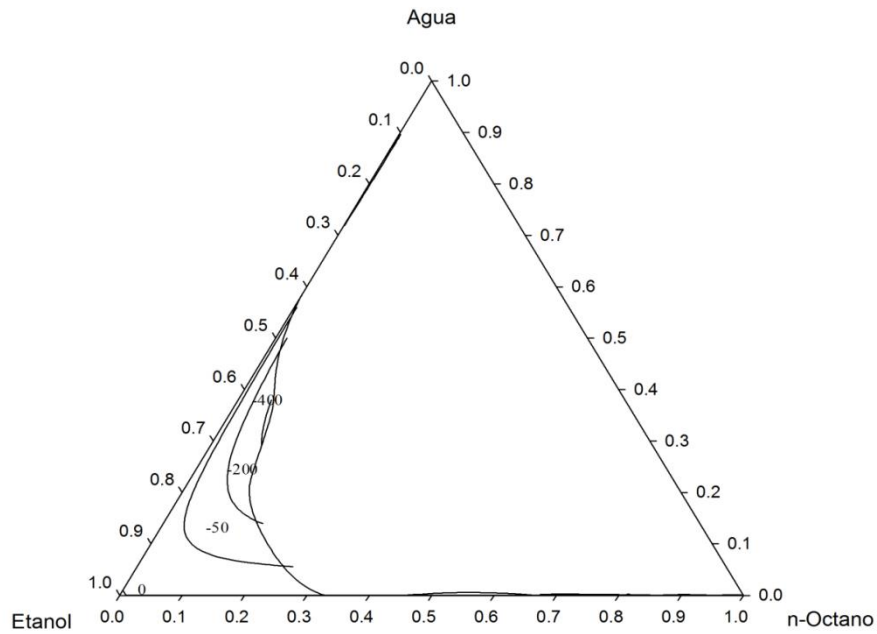


Figura G-117. Isolíneas de la variación del índice de refracción para el sistema ternario Etanol (1) – *n*-octano (2) – agua (3) a T = 298.15 K.

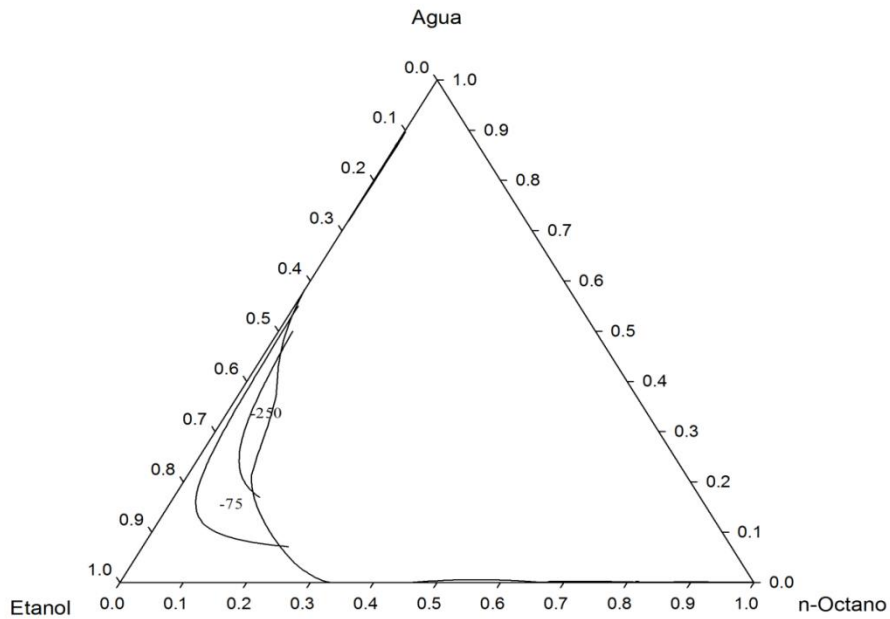


Figura G-118. Isolíneas de la contribución ternaria de la variación del índice de refracción para el sistema ternario Etanol (1) – *n*-octano (2) – agua (3) a T = 298.15 K.

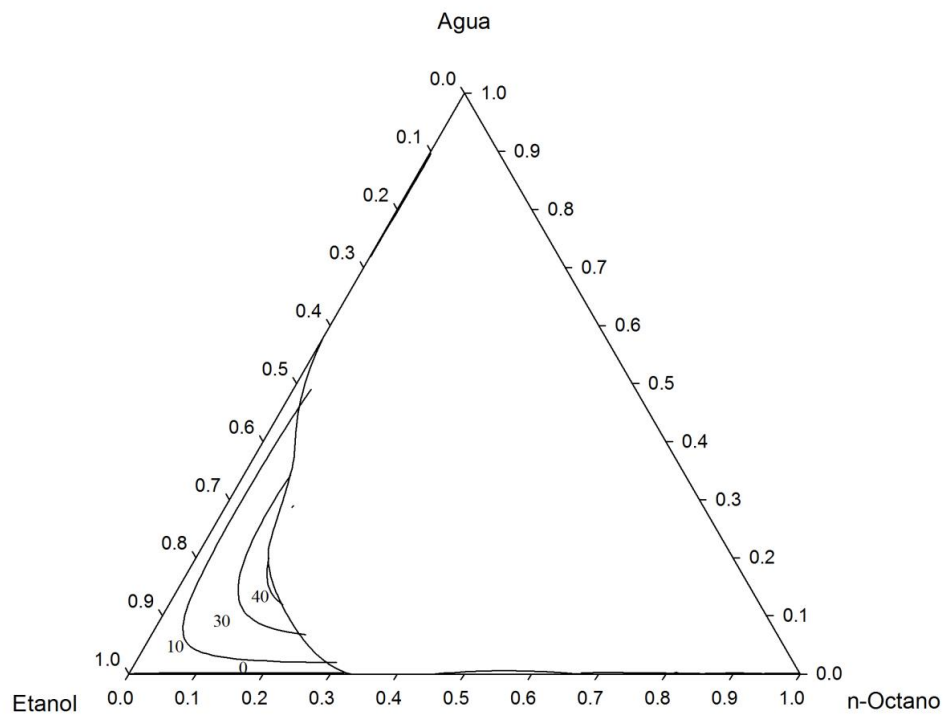


Figura G-119. Isolíneas del volumen de exceso para el sistema ternario Etanol (1) – *n*-heptano (2) – agua (3) a T = 298.15 K

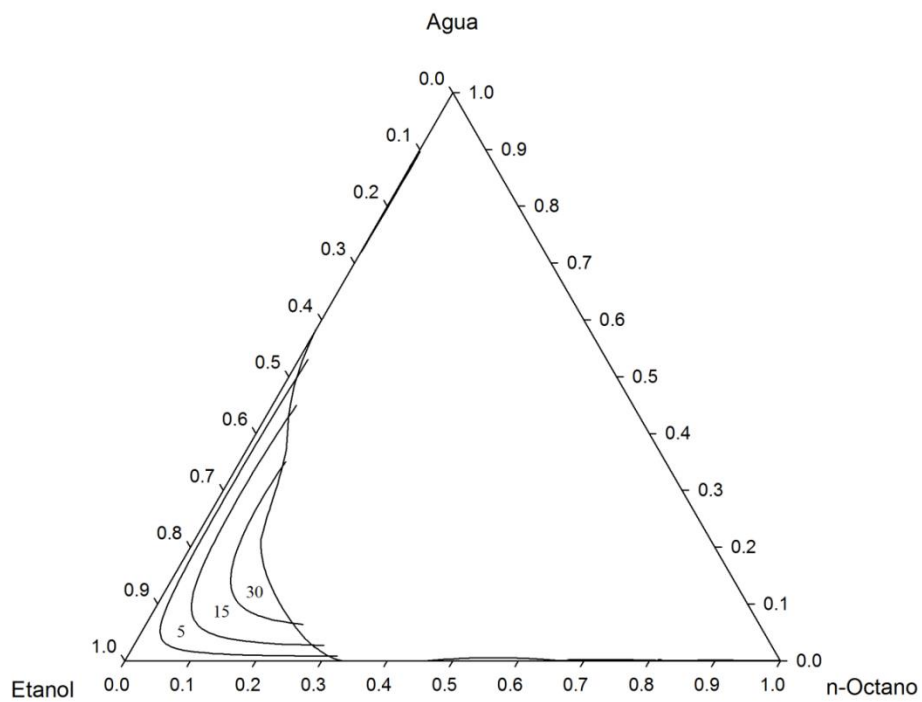


Figura G-120. Isolíneas de la contribución ternaria del volumen de exceso para el sistema ternario Etanol (1) – *n*-octano (2) – agua (3) a T = 298.15 K

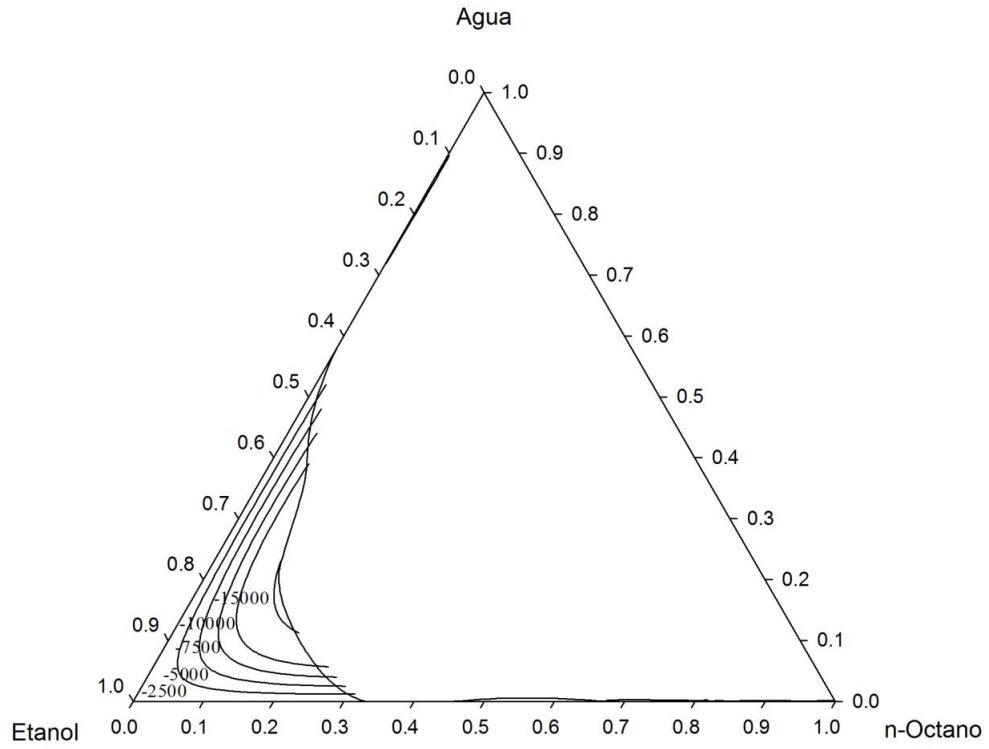


Figura G-121. Isolíneas de la compresibilidad isoentrópica para el sistema ternario Etanol (1) – *n*-octano (2) – agua (3) a $T = 298.15\text{ K}$

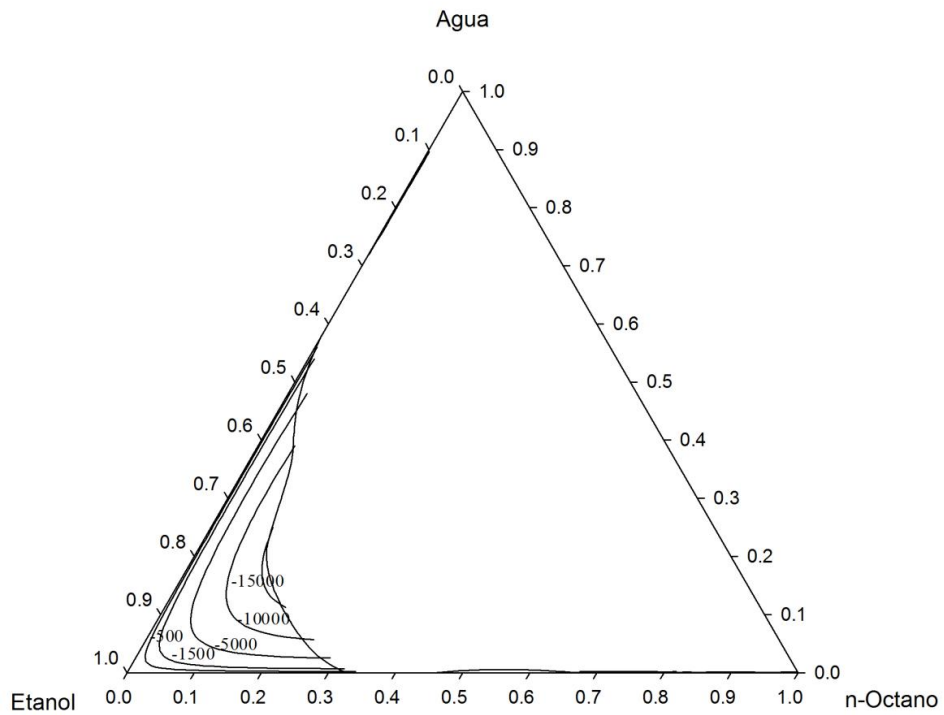


Figura G-122. Isolíneas de la contribución ternaria de la compresibilidad isoentrópica para el sistema ternario Etanol (1) – *n*-octano (2) – agua (3) a $T = 298.15\text{ K}$

G.1.5.4. Etanol – *n*-nonano – agua

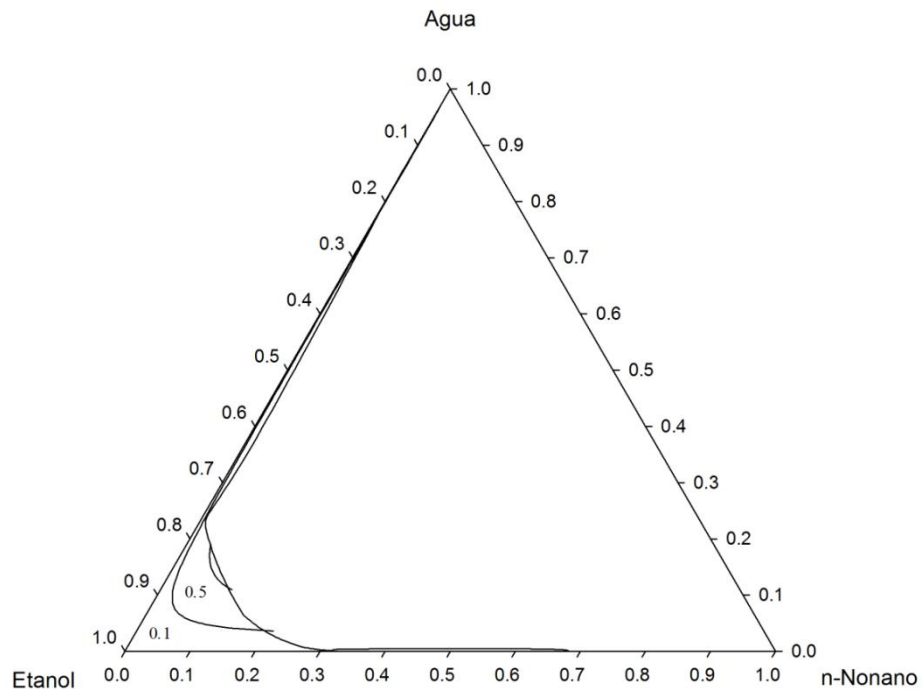


Figura G-123. Isolíneas de la variación del índice de refracción para el sistema ternario Etanol (1) – *n*-nonano (2) – agua (3) a T = 298.15 K.

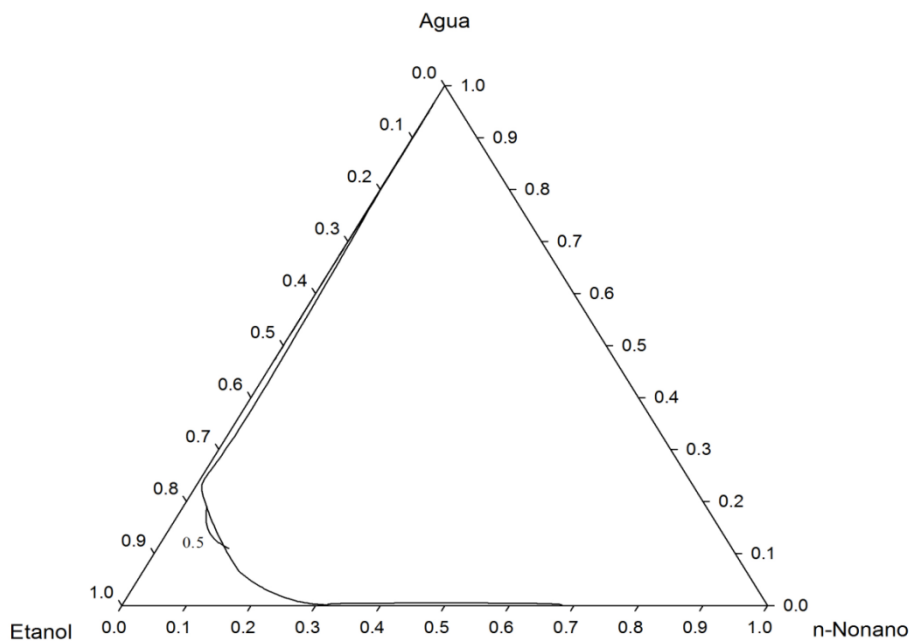


Figura G-124. Isolíneas de la contribución ternaria de la variación del índice de refracción para el sistema ternario Etanol (1) – *n*-nonano (2) – agua (3) a T = 298.15 K.

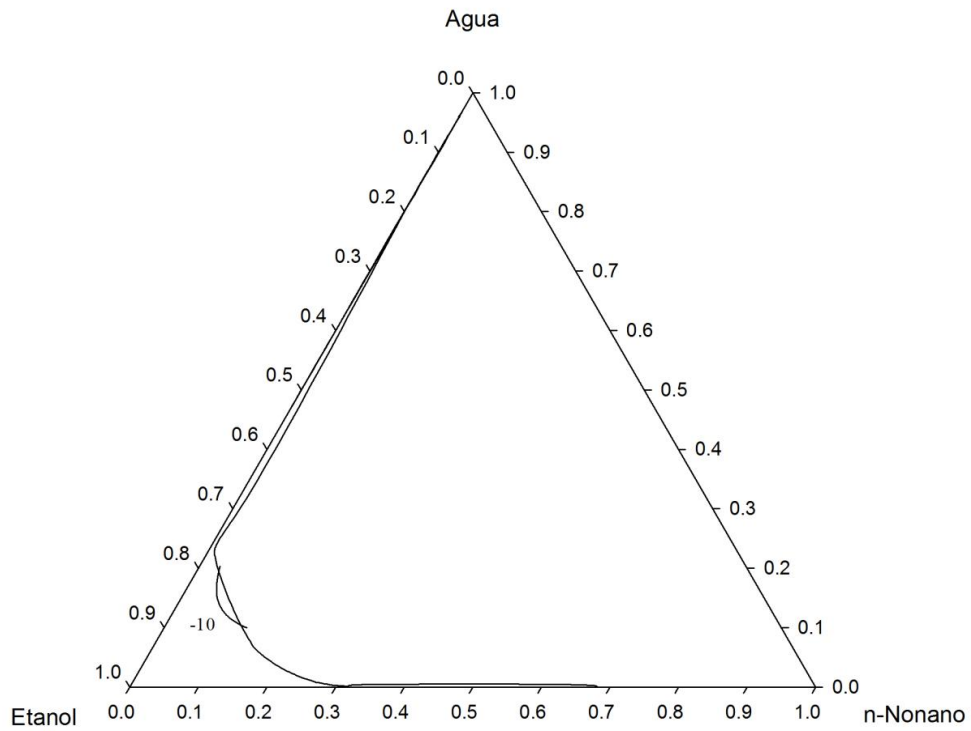


Figura G-125. Isolíneas del volumen de exceso para el sistema ternario Etanol (1) – *n*-nonano (2) – agua (3) a T = 298.15 K

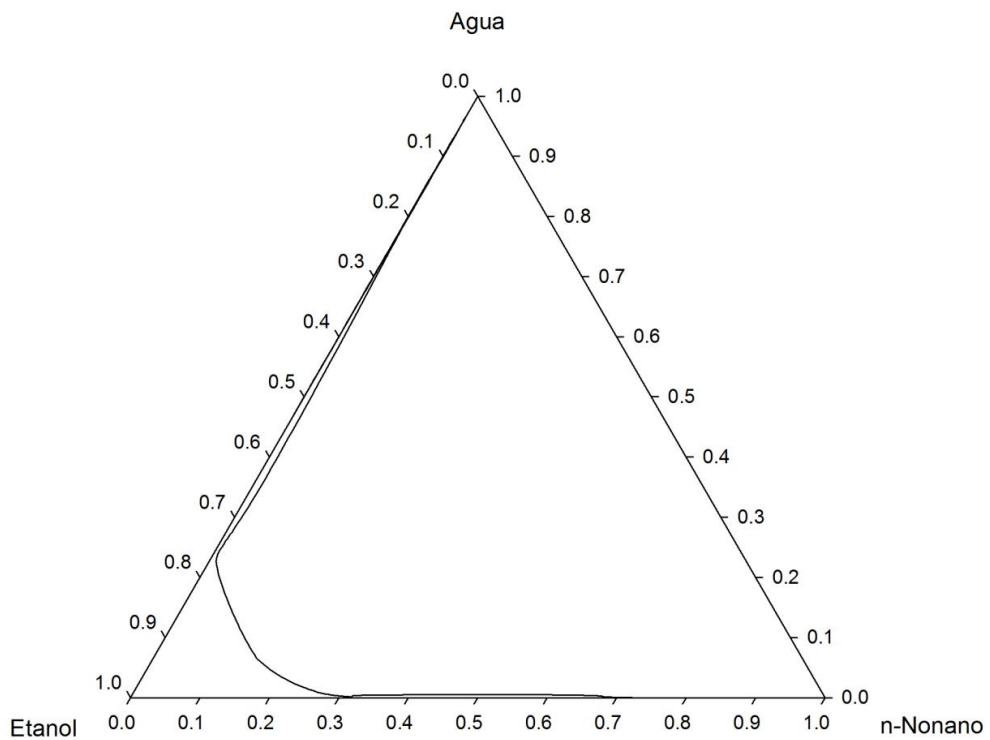


Figura G-126. Isolíneas de la contribución ternaria del volumen de exceso para el sistema ternario Etanol (1) – *n*-nonano (2) – agua (3) a T = 298.15 K

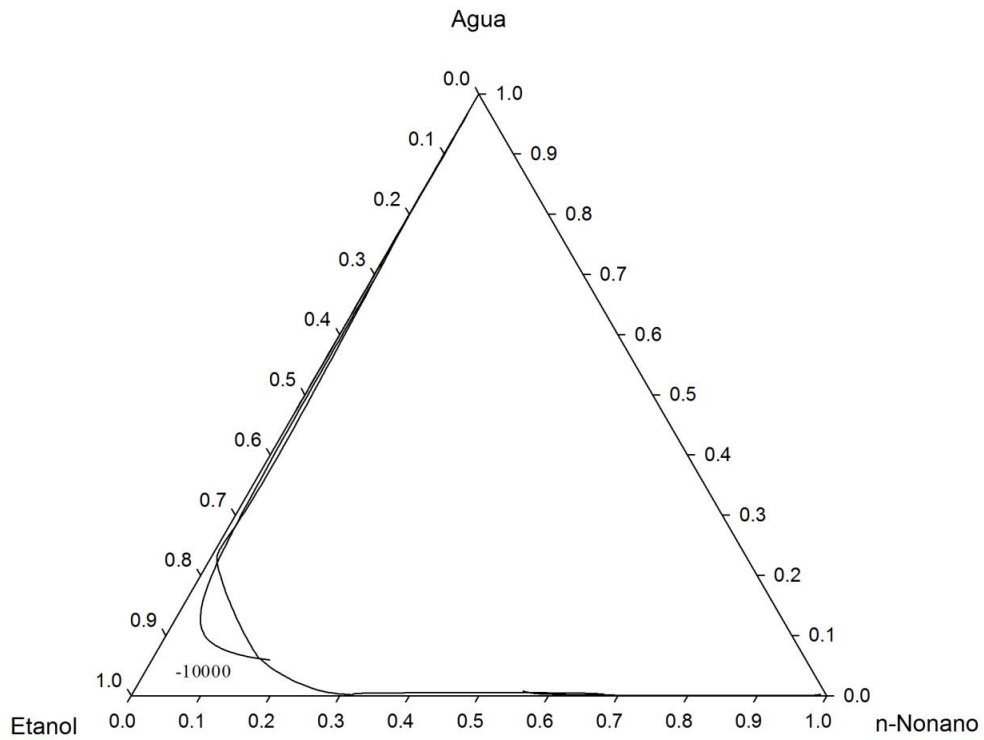


Figura G-127. Isolíneas de la compresibilidad isoentrópica para el sistema ternario Etanol (1) – *n*-nonano (2) – agua (3) a T = 298.15 K

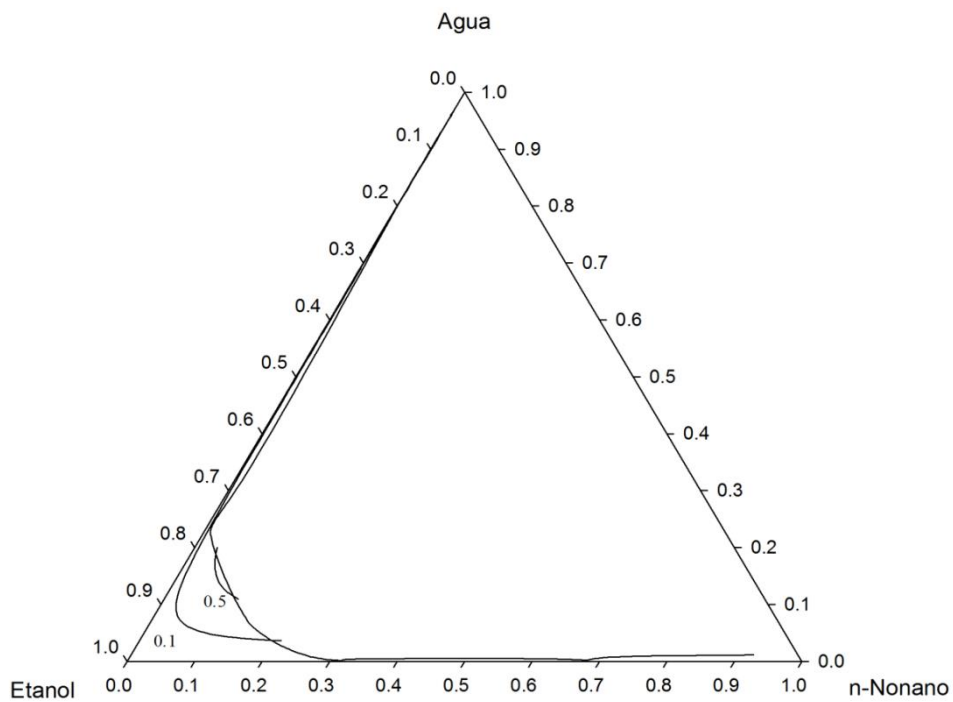


Figura G-128. Isolíneas de la contribución ternaria de la compresibilidad isoentrópica para el sistema ternario Etanol (1) - *n*-nonano (2) – agua (3) a T = 298.15 K

G.1.6. Gráficas sistemas ternarios acuoso - acuoso

G.1.6.1. Tween 20 – Na₂SO₄ – agua

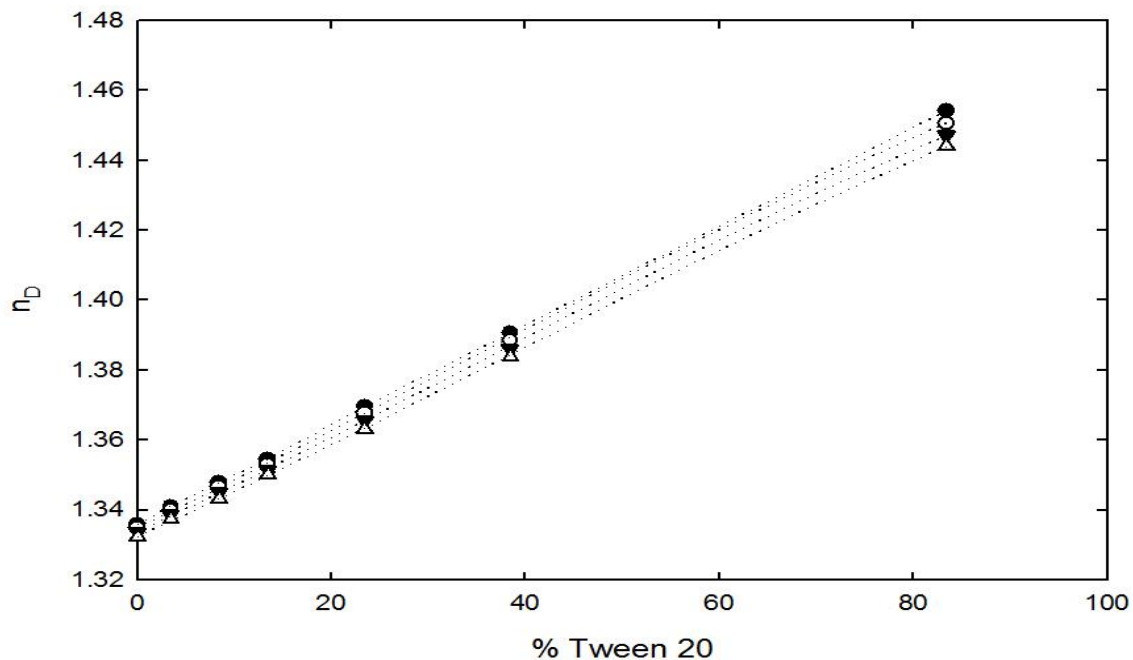


Figura G-129. Índice de refracción para el sistema ternario Tween 20 (1) - Na₂SO₄ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 1.56% Na₂SO₄

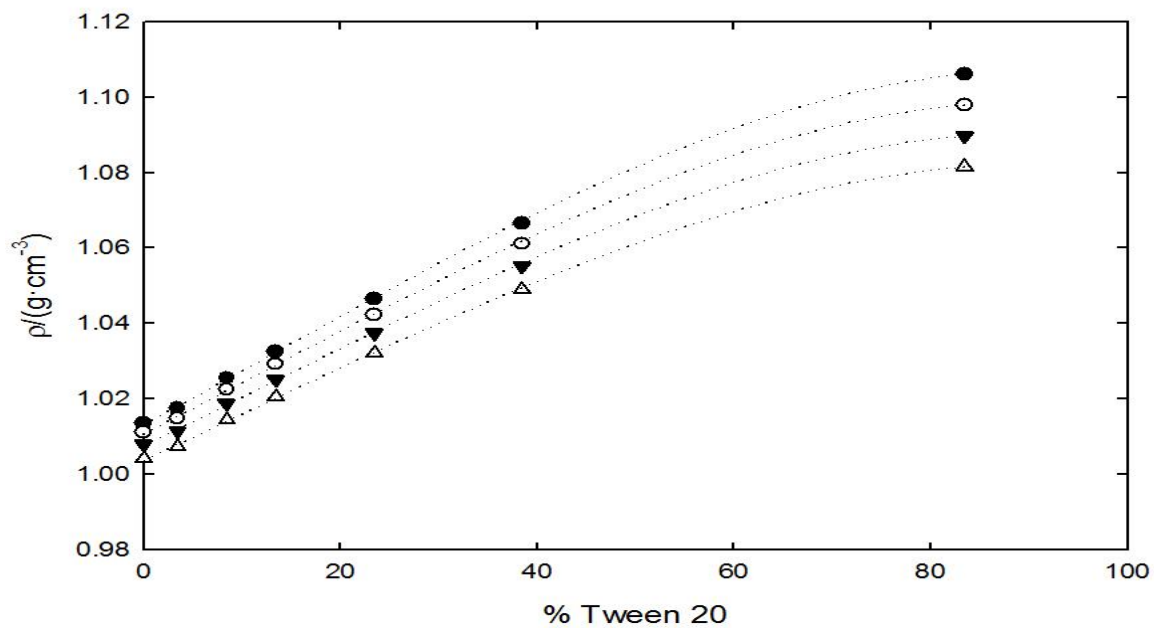


Figura G-130. Densidad para el sistema ternario Tween 20 (1) - Na₂SO₄ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 1.56% Na₂SO₄

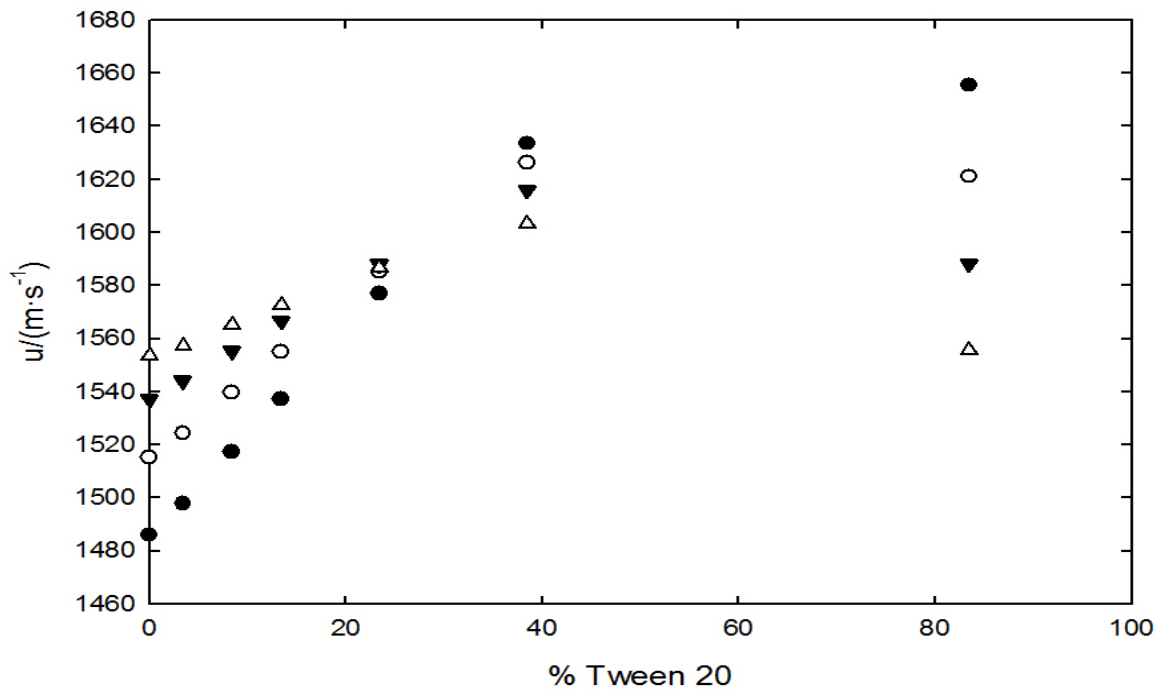


Figura G-131. Velocidad del sonido para el sistema ternario Tween 20 (1) - Na_2SO_4 (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 1.56% Na_2SO_4

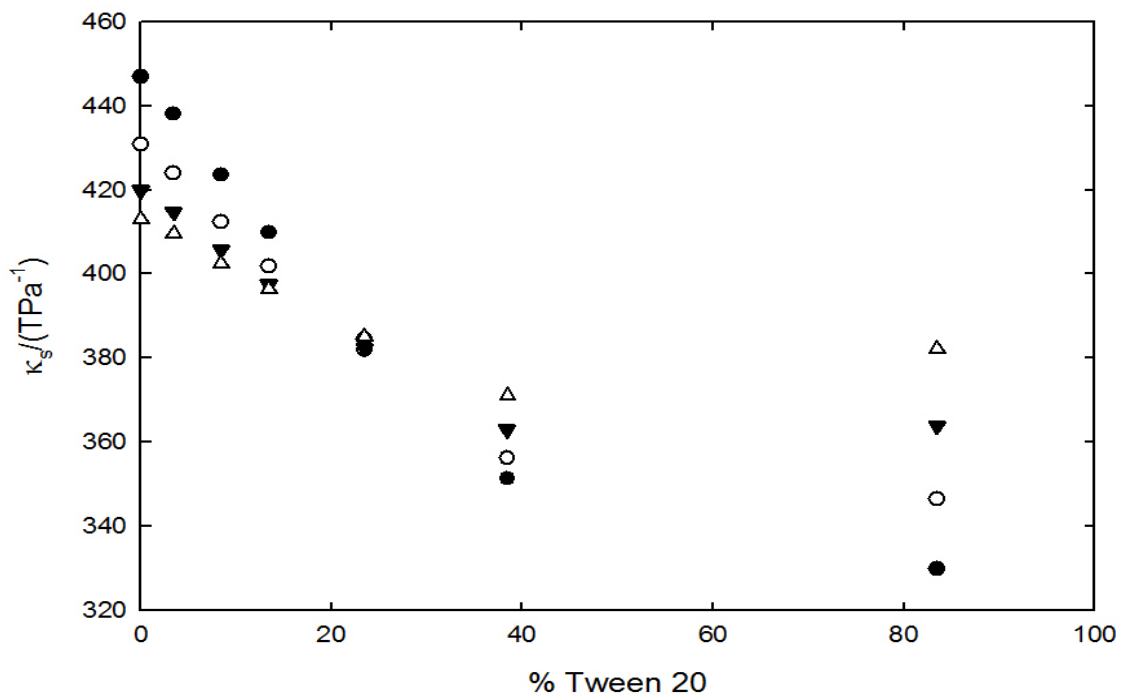


Figura G-132. Compresibilidad isoentrópica para el sistema ternario Tween 20 (1) - Na_2SO_4 (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 1.56% Na_2SO_4

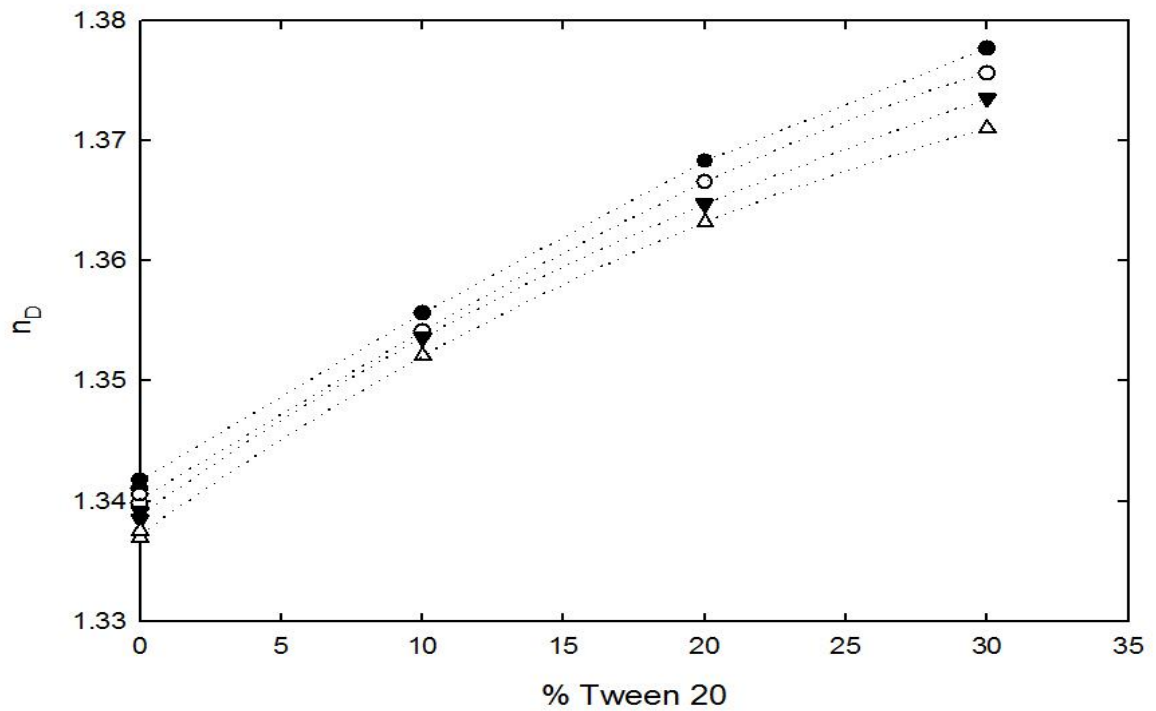


Figura G-133. Índice de refracción para el sistema ternario Tween 20 (1) - Na_2SO_4 (2) - agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 4.98% Na_2SO_4

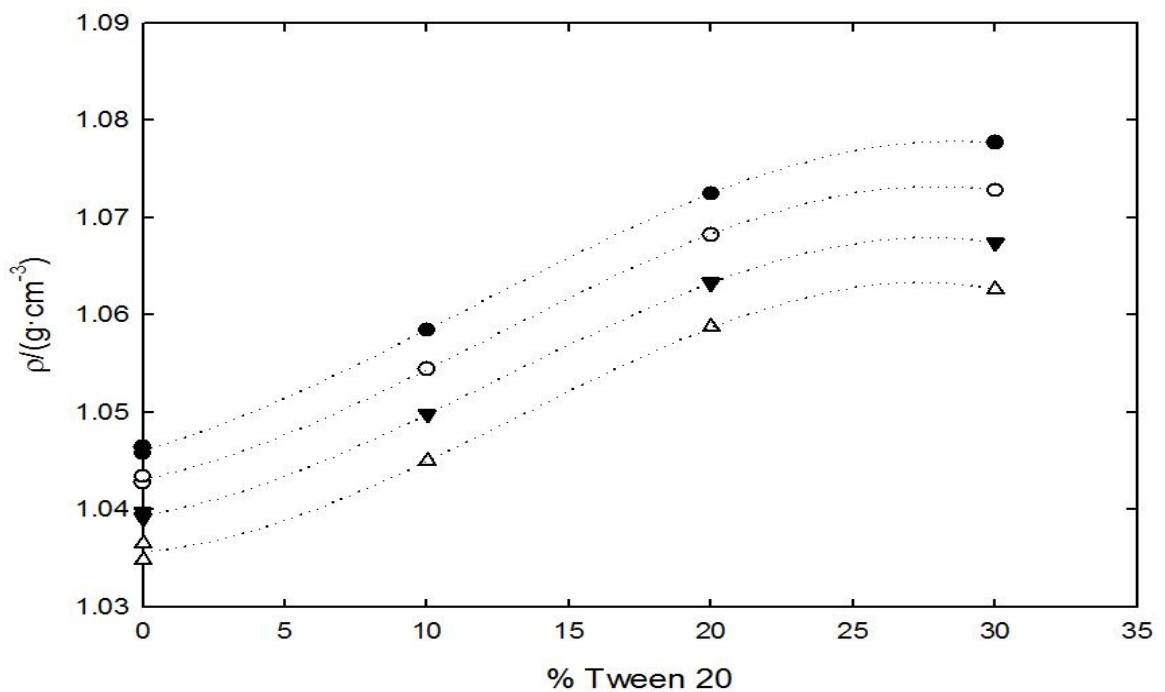


Figura G-134. Densidad para el sistema ternario Tween 20 (1) - Na_2SO_4 (2) - agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 4.98% Na_2SO_4

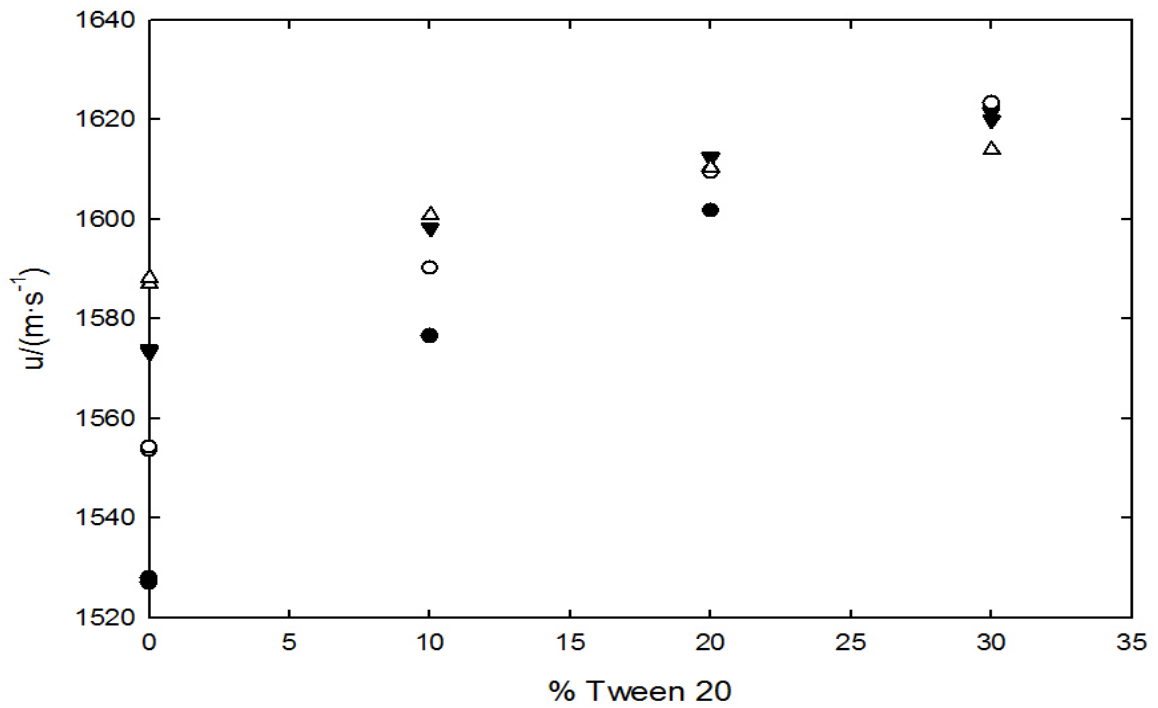


Figura G-135. Velocidad del sonido para el sistema ternario Tween 20 (1) - Na_2SO_4 (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 4.98% Na_2SO_4

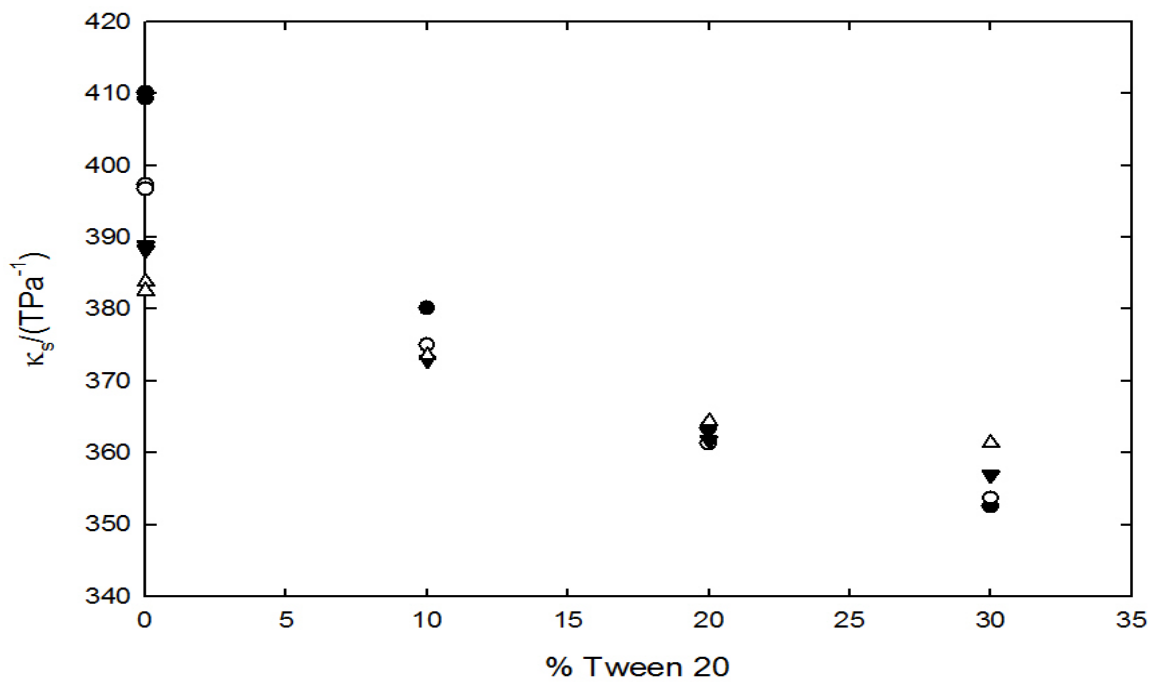


Figura G-136. Compresibilidad isoentrópica para el sistema ternario Tween 20 (1) - Na_2SO_4 (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 4.98% Na_2SO_4

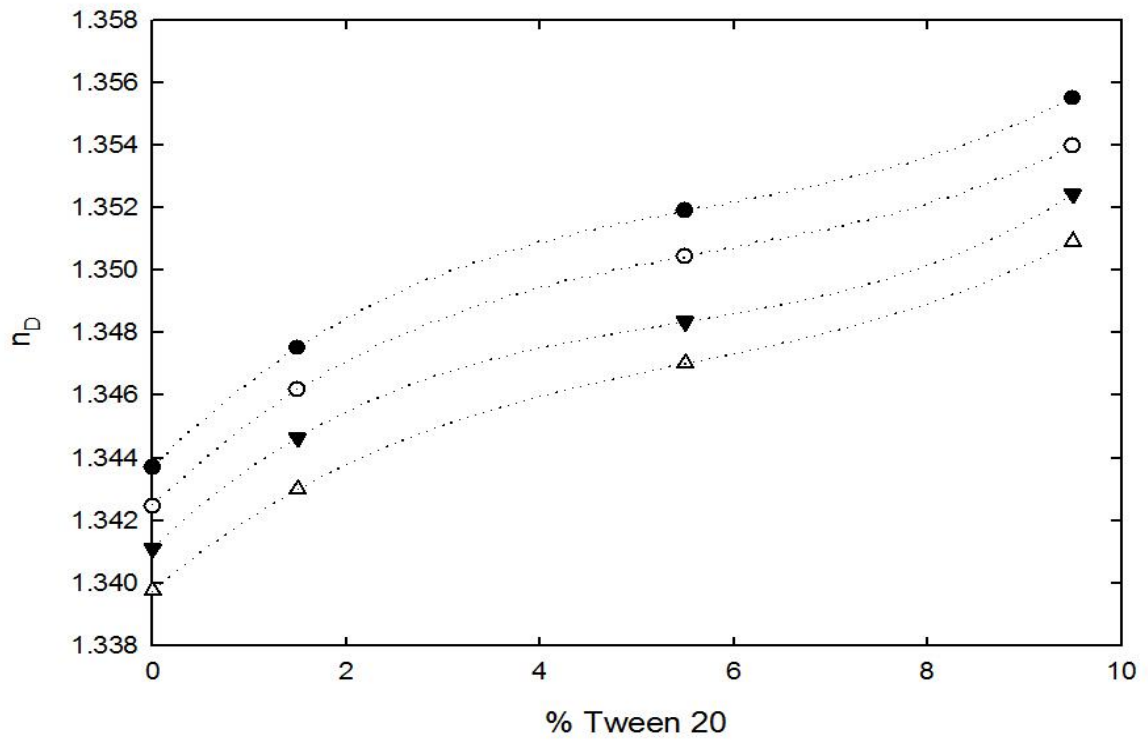


Figura G-137. Índice de refracción para el sistema ternario Tween 20 (1) - Na_2SO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 6.50% Na_2SO_4

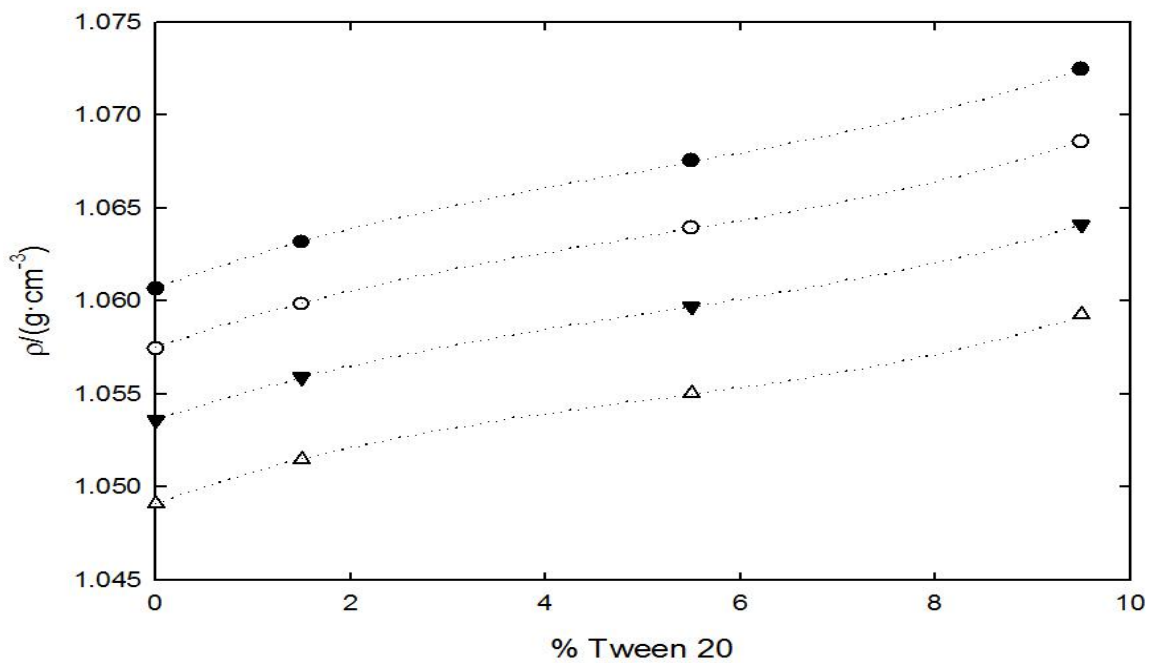


Figura G-138. Densidad para el sistema ternario Tween 20 (1) - Na_2SO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 6.50% Na_2SO_4

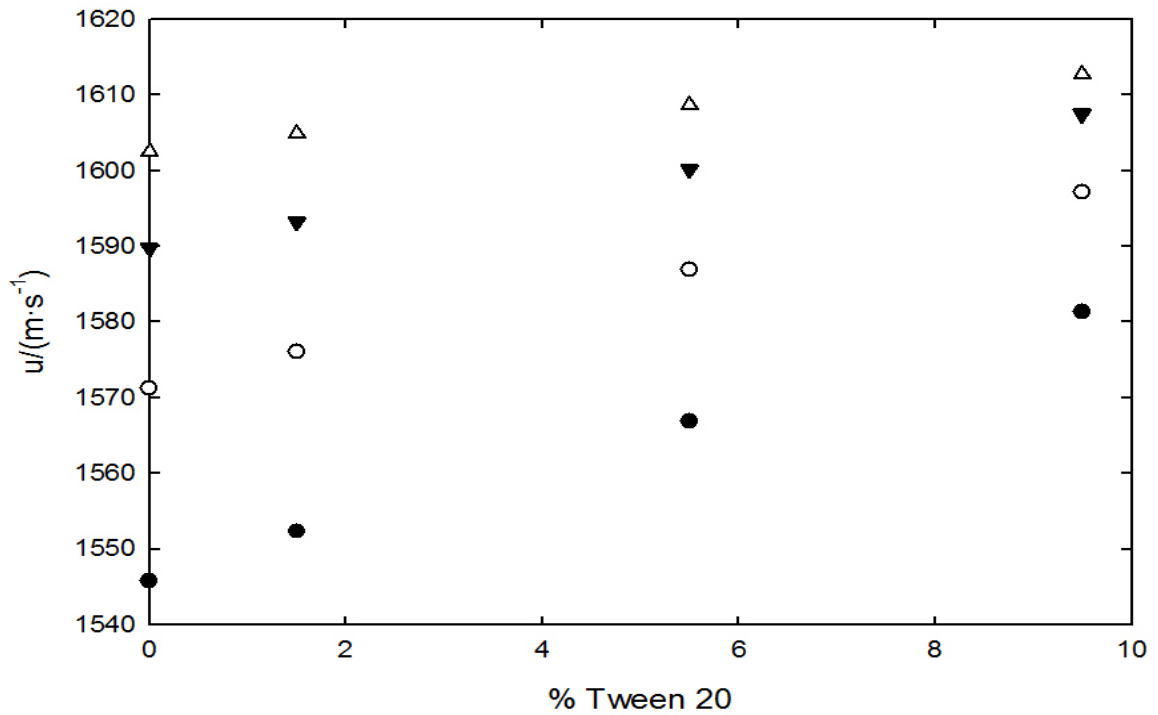


Figura G-139. Velocidad del sonido para el sistema ternario Tween 20 (1) - Na_2SO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 6.50% Na_2SO_4

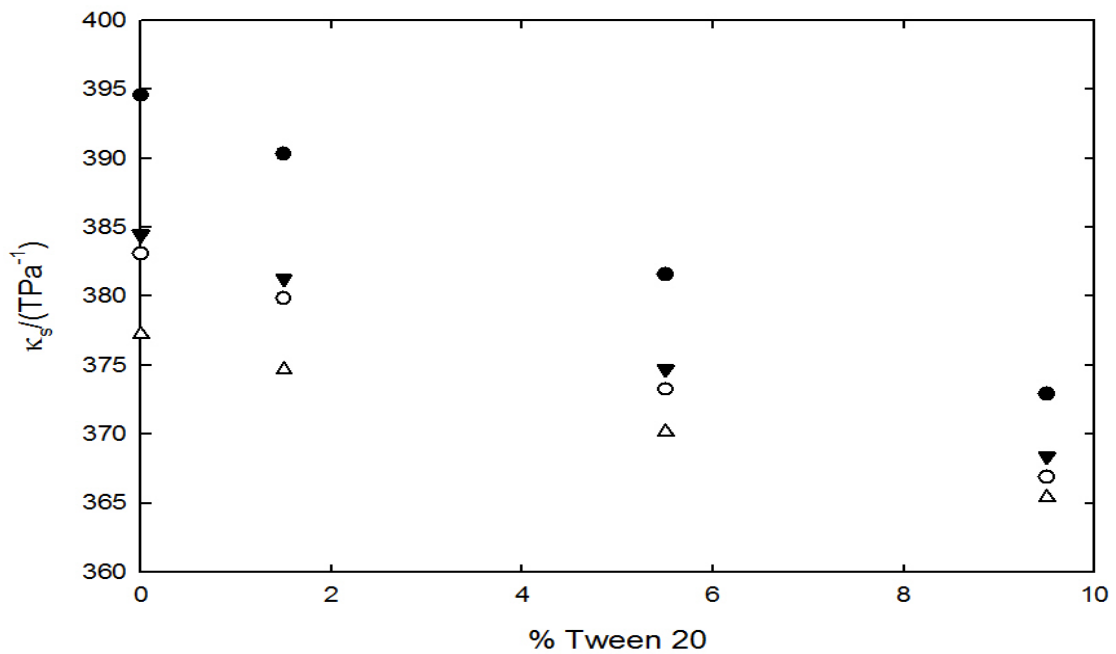


Figura G-140. Compresibilidad isoentrópica para el sistema ternario Tween 20 (1) - Na_2SO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 6.50% Na_2SO_4

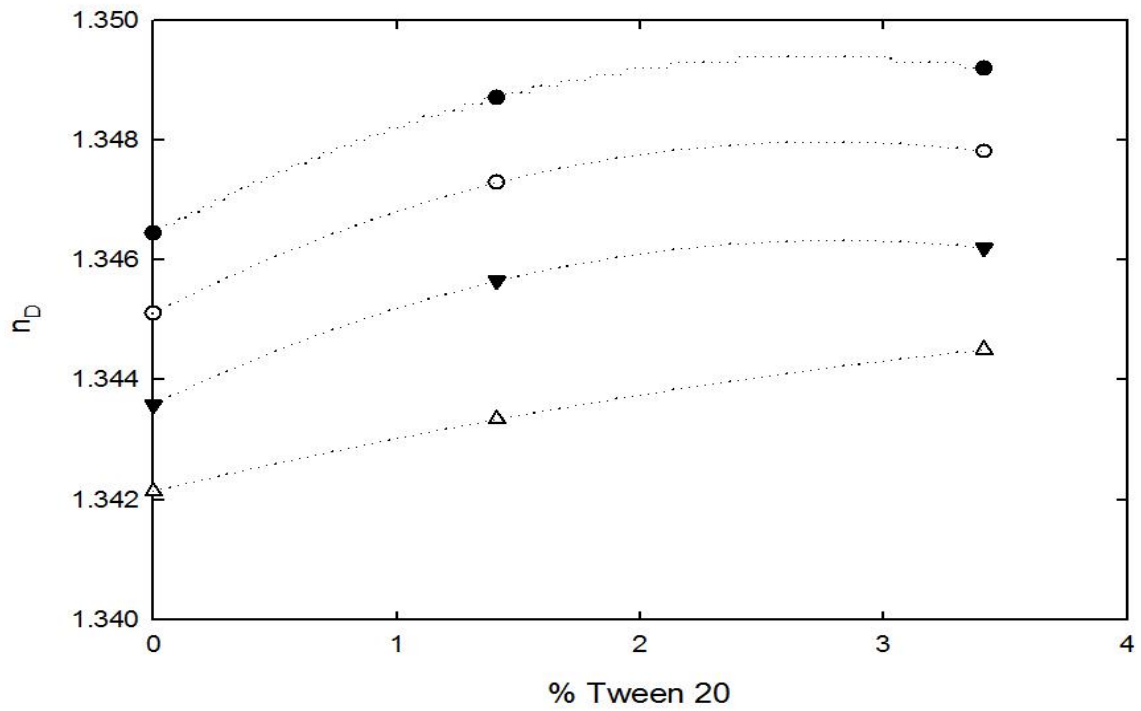


Figura G-141. Índice de refracción para el sistema ternario Tween 20 (1) - Na_2SO_4 (2) - agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 8.58% Na_2SO_4

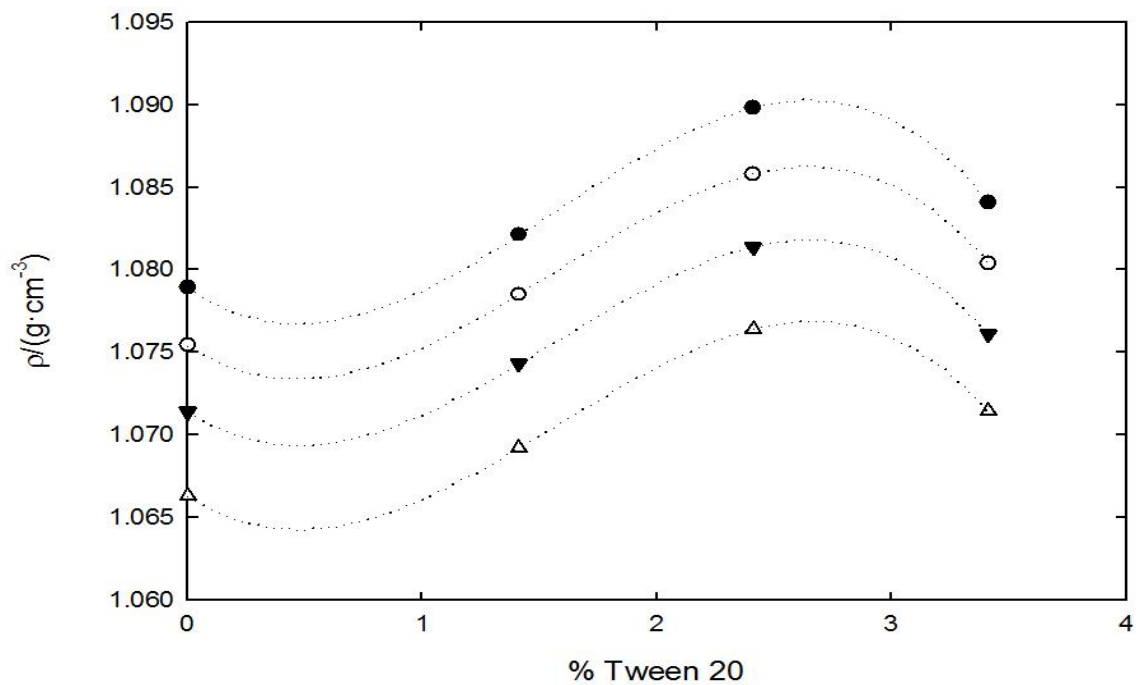


Figura G-142. Densidad para el sistema ternario Tween 20 (1) - Na_2SO_4 (2) - agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 8.58% Na_2SO_4

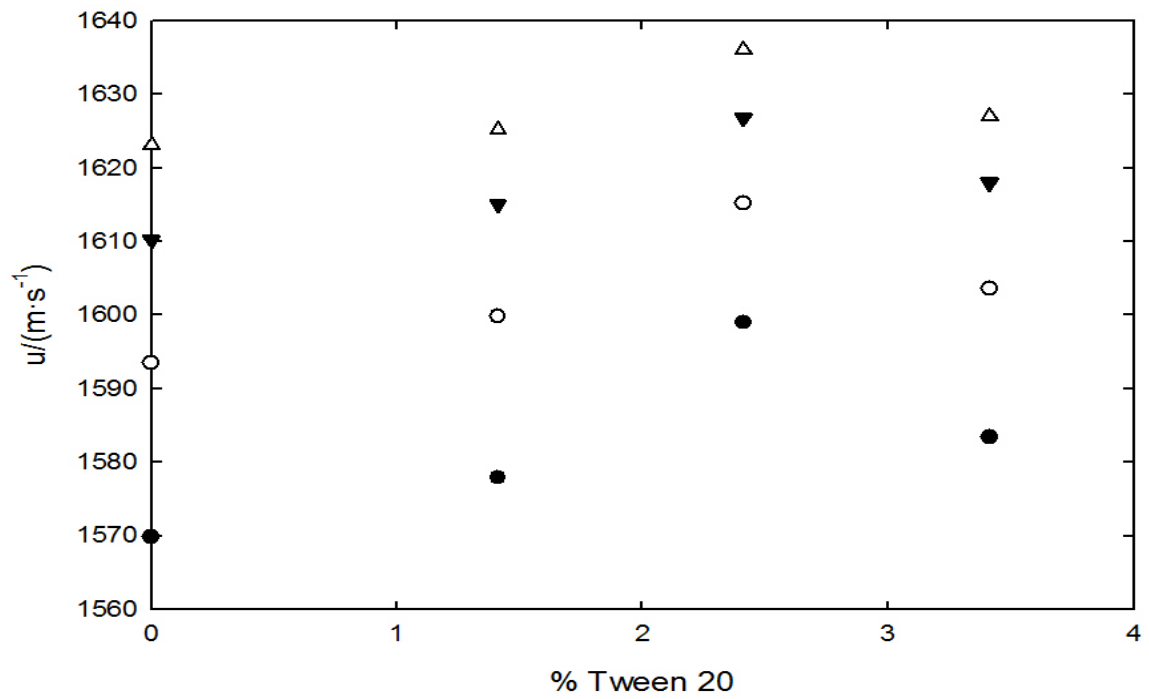


Figura G-143. Velocidad del sonido para el sistema ternario Tween 20 (1) - Na_2SO_4 (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; Δ, $T = 318.15 \text{ K}$, 8.58% Na_2SO_4

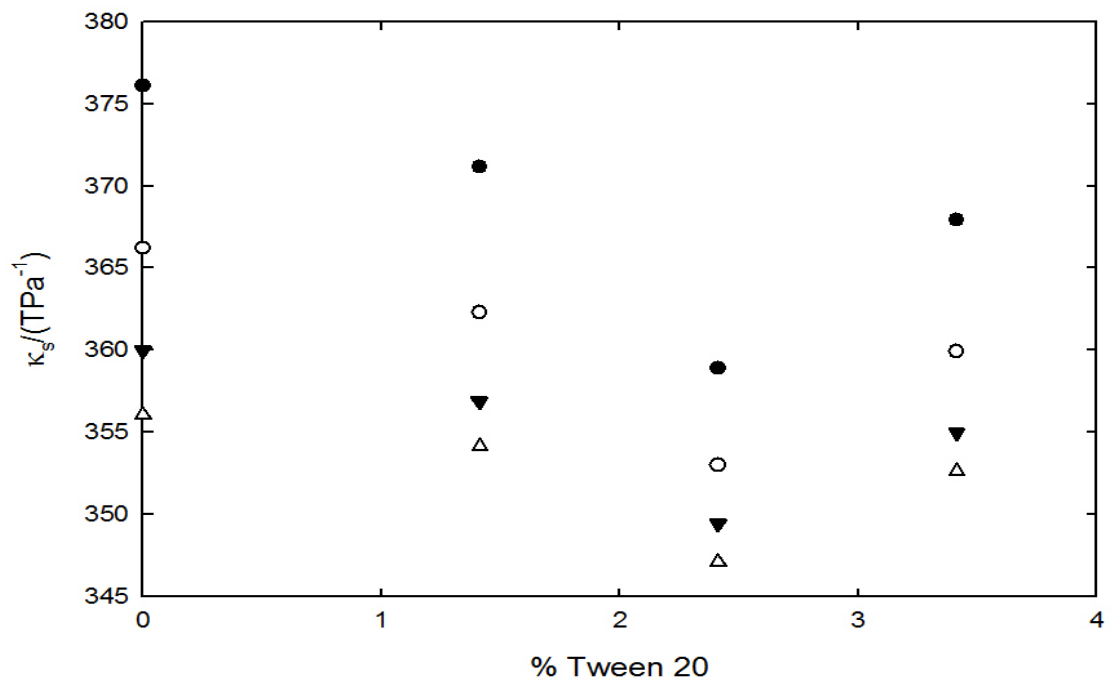


Figura G-144. Compresibilidad isoentrópica para el sistema ternario Tween 20 (1) - Na_2SO_4 (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; Δ, $T = 318.15 \text{ K}$, 8.58% Na_2SO_4

G.1.6.2. Tween 20 – Na₂S₂O₃ – agua

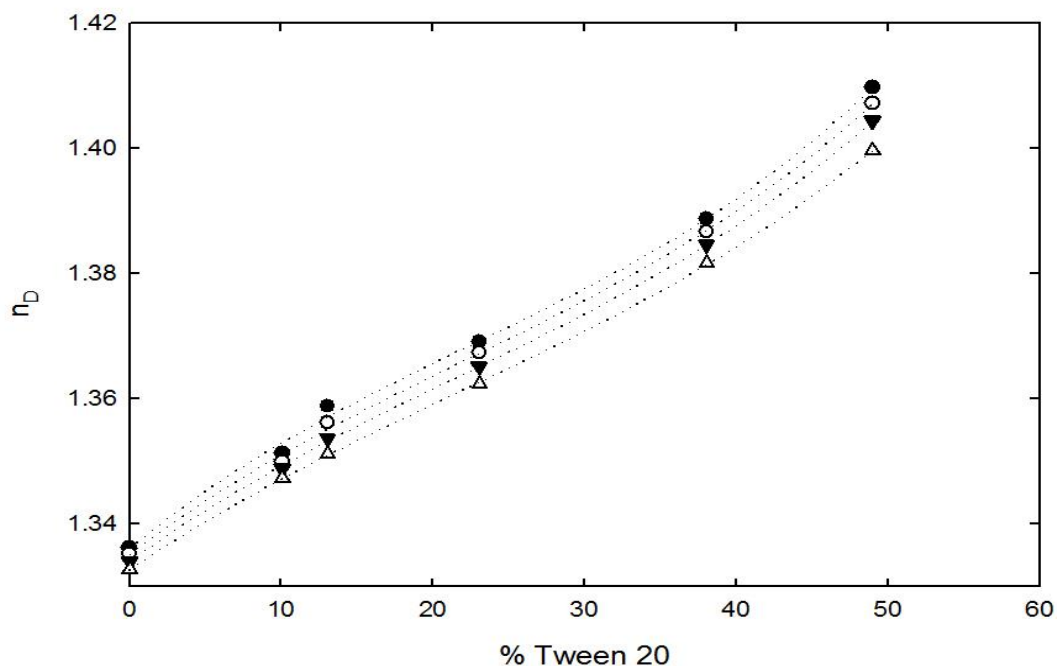


Figura G-145. Índice de refracción para el sistema ternario Tween 20 (1) - Na₂S₂O₃ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 1.93% Na₂S₂O₃

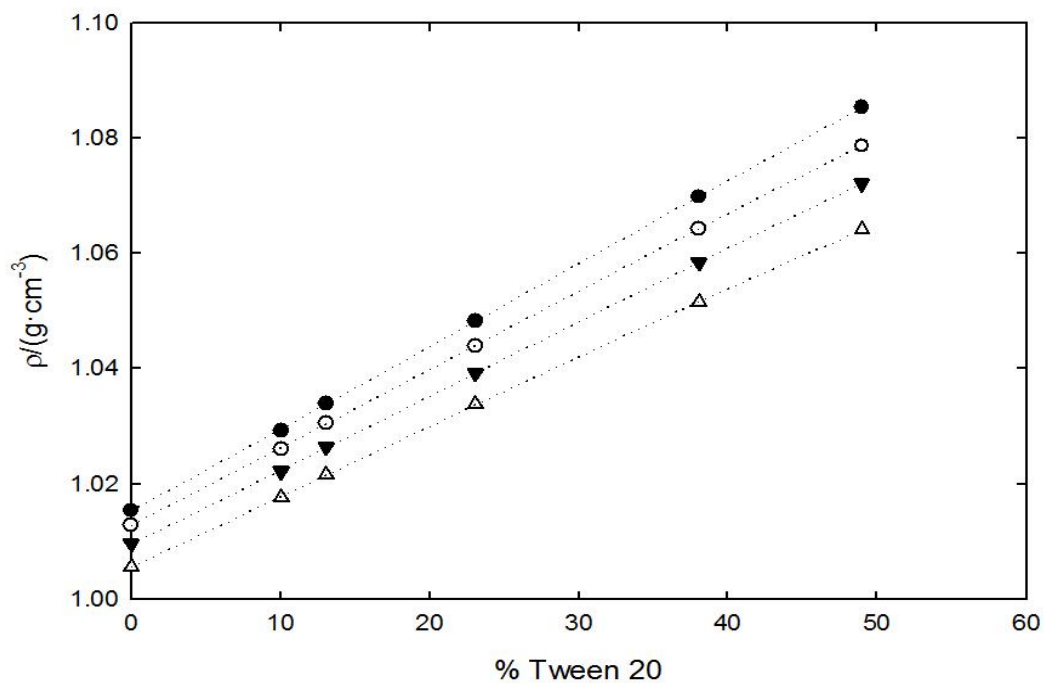


Figura G-146. Densidad para el sistema ternario Tween 20 (1) - Na₂S₂O₃ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 1.93% Na₂S₂O₃

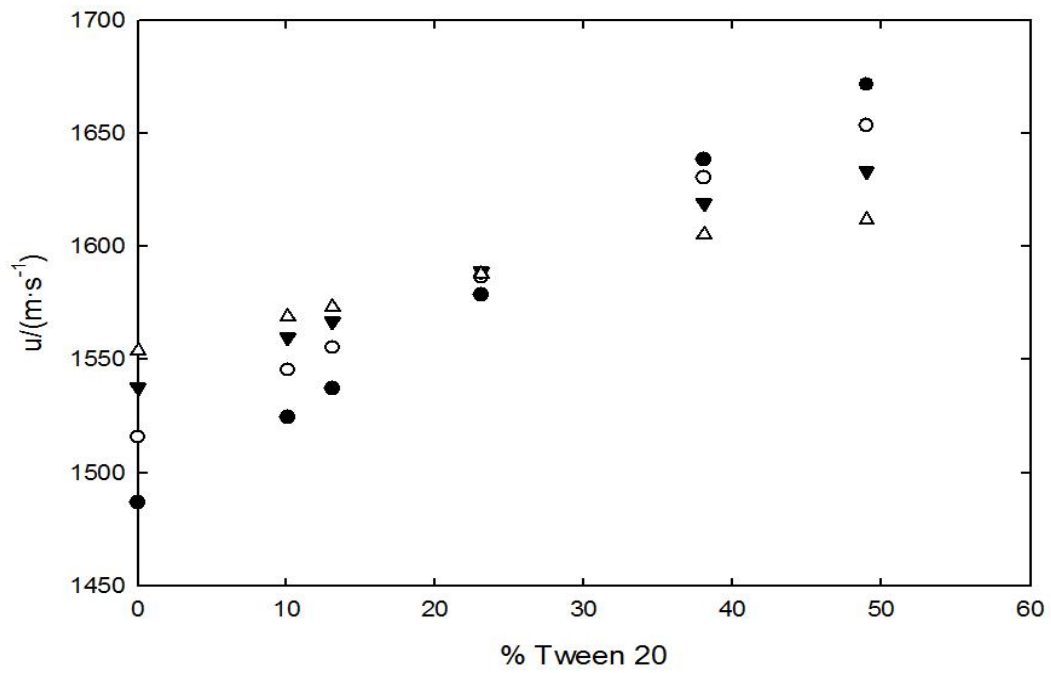


Figura G-147. Velocidad del sonido para el sistema ternario Tween 20 (1) - $Na_2S_2O_3$ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 1.93% $Na_2S_2O_3$

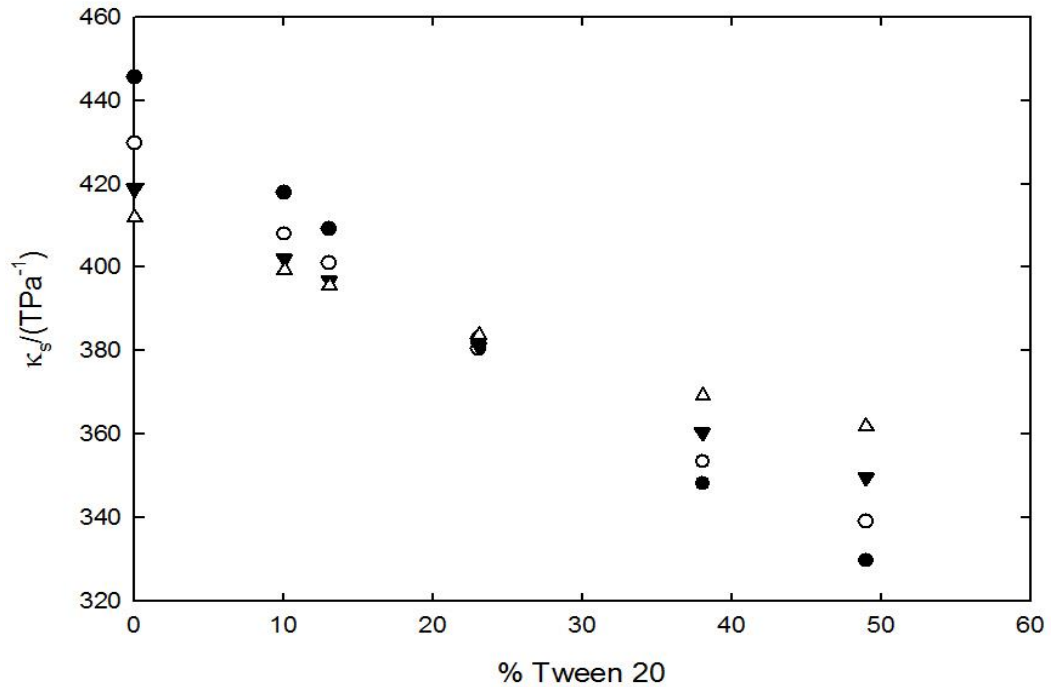


Figura G-148. Compresibilidad isoentrópica para el sistema ternario Tween 20 (1) - $Na_2S_2O_3$ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 1.93% $Na_2S_2O_3$

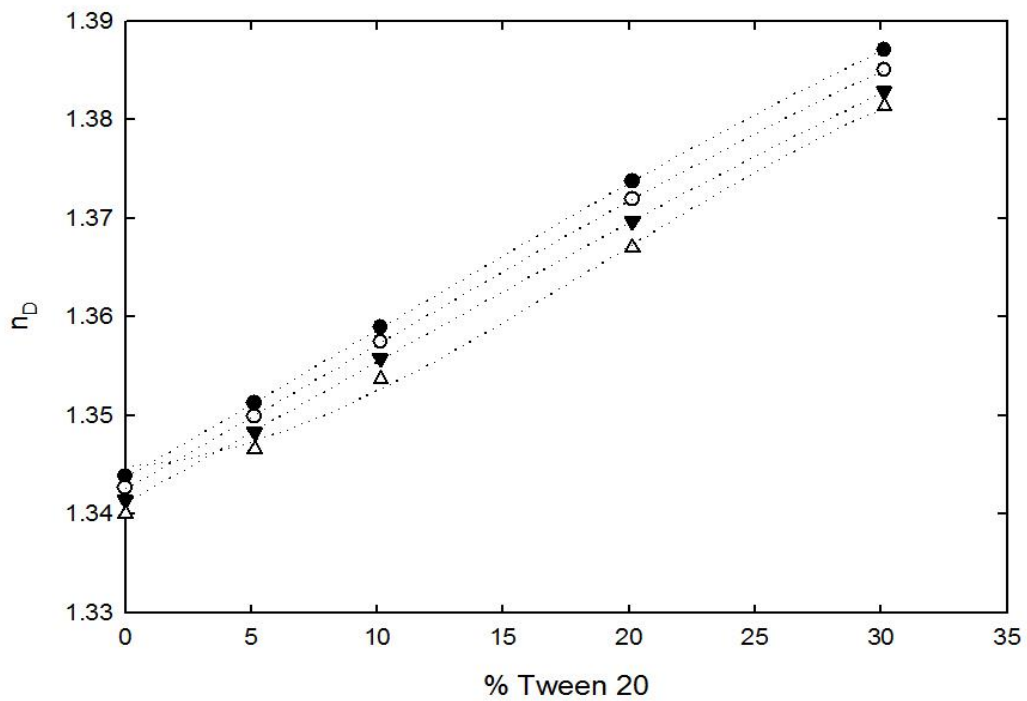


Figura G-149. Índice de refracción para el sistema ternario Tween 20 (1) - $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 4.86% $\text{Na}_2\text{S}_2\text{O}_3$

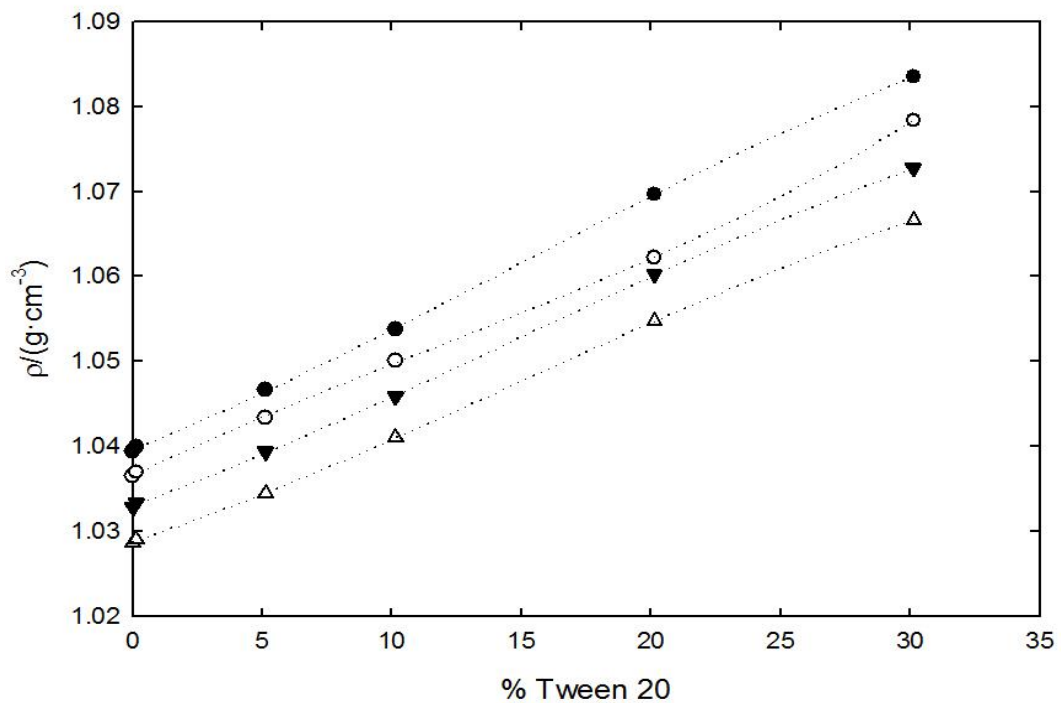


Figura G-150. Densidad para el sistema ternario Tween 20 (1) - $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 4.86% $\text{Na}_2\text{S}_2\text{O}_3$

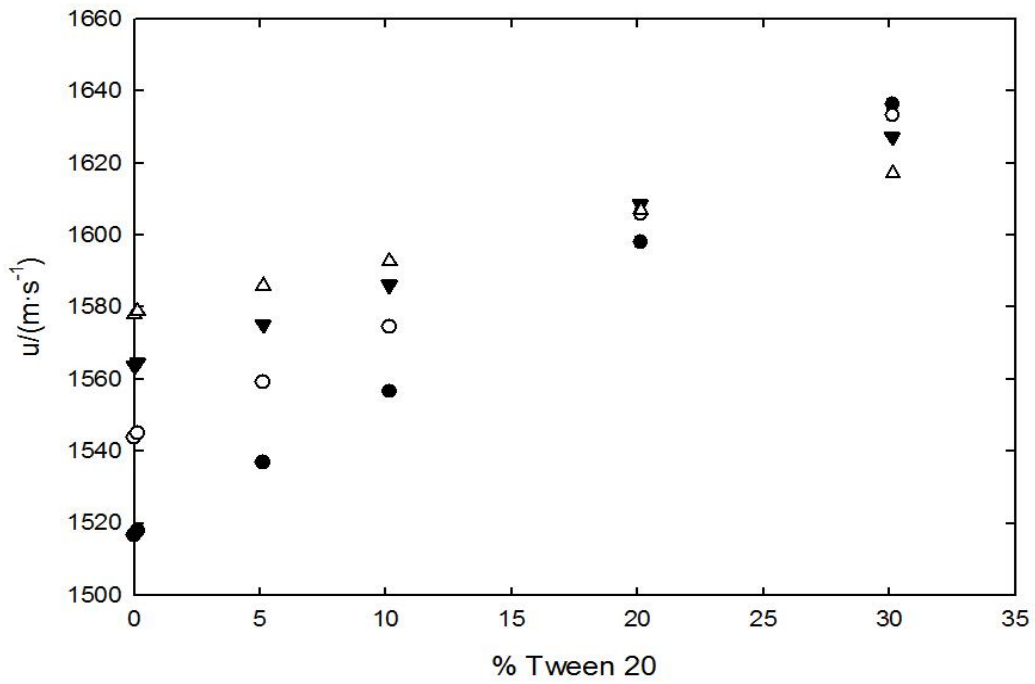


Figura G-151. Velocidad del sonido para el sistema ternario Tween 20 (1) - $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 4.86% $\text{Na}_2\text{S}_2\text{O}_3$

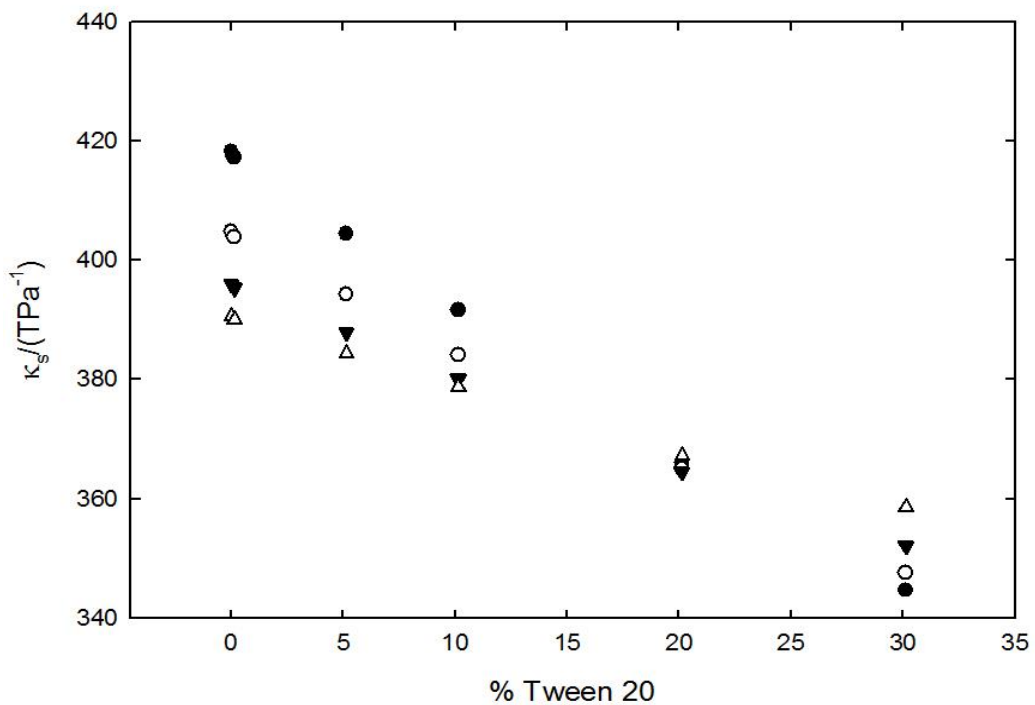


Figura G-152. Compresibilidad isoentrópica para el sistema ternario Tween 20 (1) - $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 4.86% $\text{Na}_2\text{S}_2\text{O}_3$

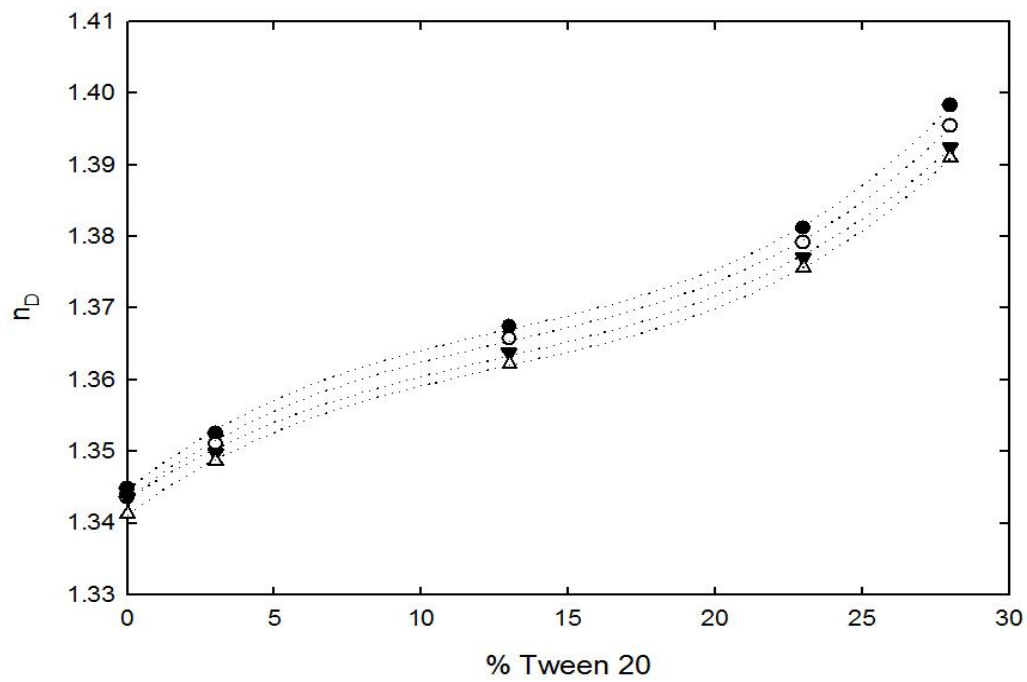


Figura G-153. Índice de refracción para el sistema ternario Tween 20 (1) - $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, ● $T=288.15\text{ K}$; ○, $T = 298.15\text{ K}$; ▼, $T = 308.15\text{ K}$; Δ, $T = 318.15\text{ K}$, 7.00% $\text{Na}_2\text{S}_2\text{O}_3$

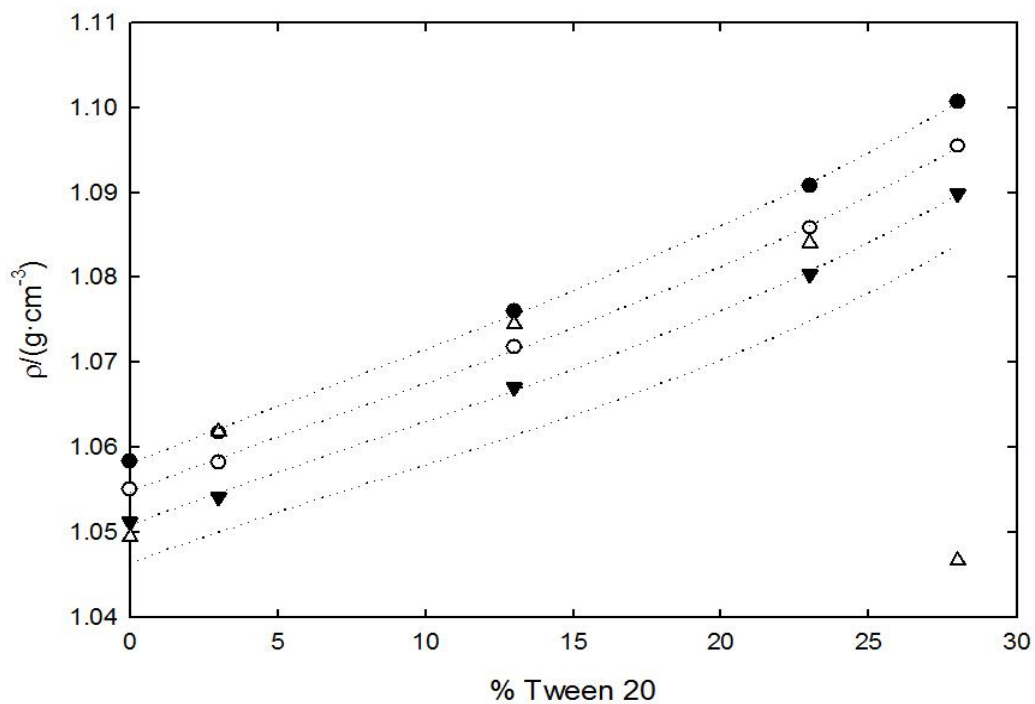


Figura G-154. Densidad para el sistema ternario Tween 20 (1) - $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, ● $T=288.15\text{ K}$; ○, $T = 298.15\text{ K}$; ▼, $T = 308.15\text{ K}$; Δ, $T = 318.15\text{ K}$, 7.00% $\text{Na}_2\text{S}_2\text{O}_3$

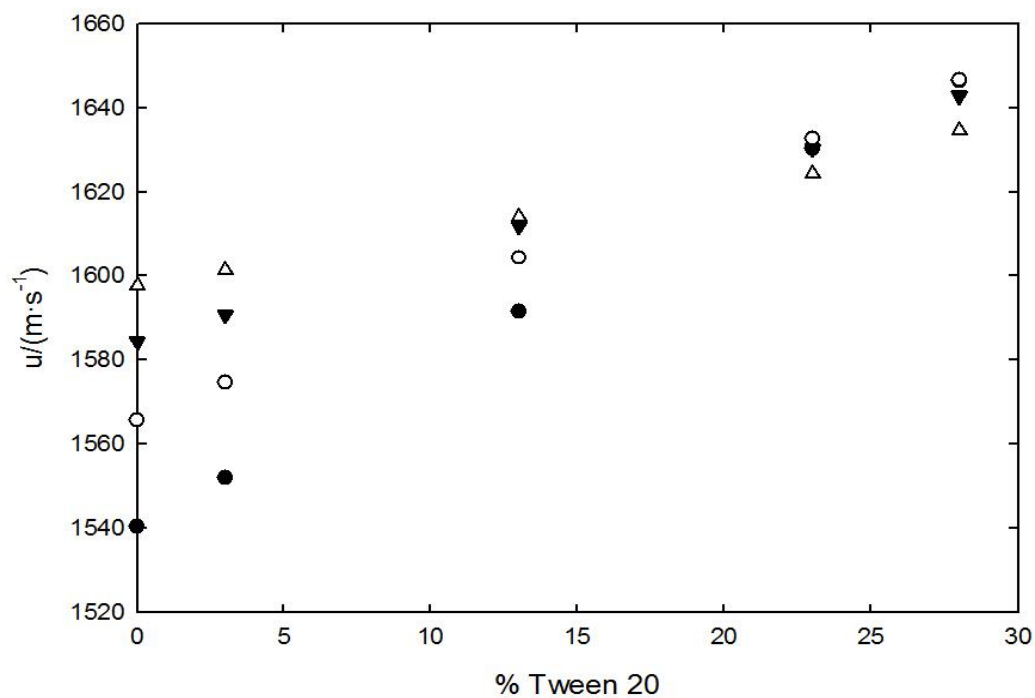


Figura G-155. Velocidad del sonido para el sistema ternario Tween 20 (1) - $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 7.00% $\text{Na}_2\text{S}_2\text{O}_3$

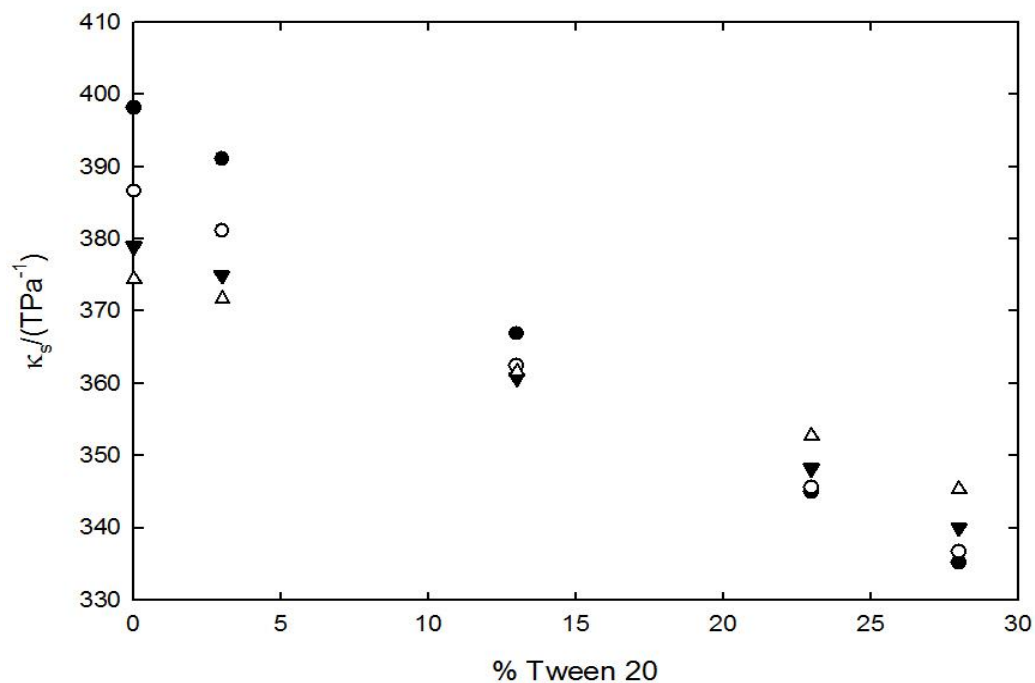


Figura G-156. Compresibilidad isoentrópica para el sistema ternario Tween 20 (1) - $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 7.00% $\text{Na}_2\text{S}_2\text{O}_3$

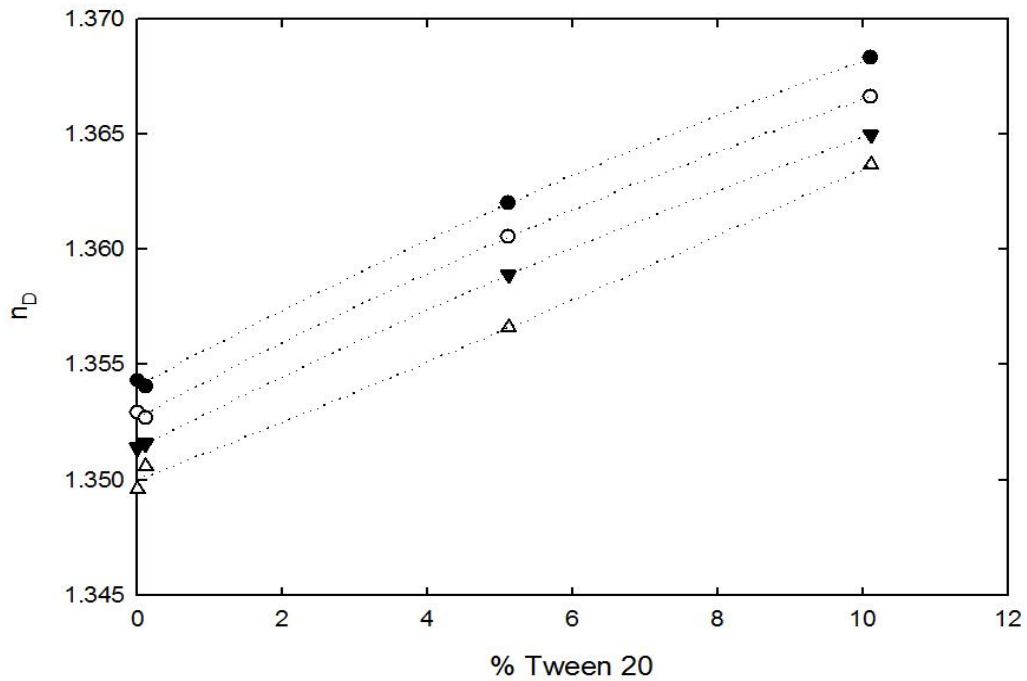


Figura G-157. Índice de refracción para el sistema ternario Tween 20 (1) - $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, ● $T=288.15\text{ K}$; ○, $T = 298.15\text{ K}$; ▼, $T = 308.15\text{ K}$; Δ, $T = 318.15\text{ K}$, 9.88% $\text{Na}_2\text{S}_2\text{O}_3$

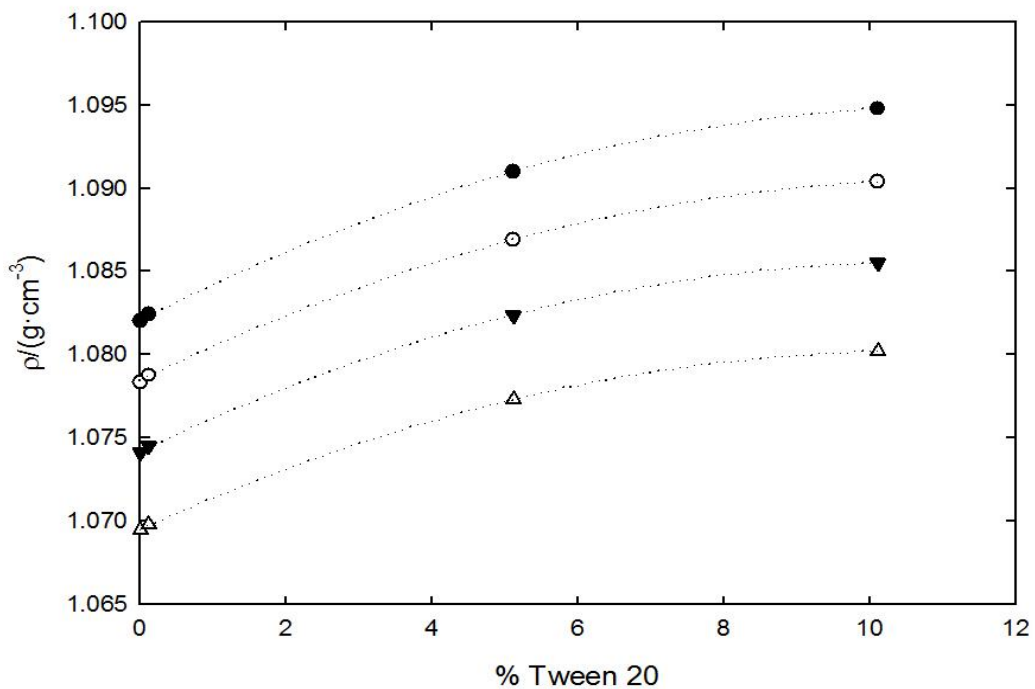


Figura G-158. Densidad para el sistema ternario Tween 20 (1) - $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, ● $T=288.15\text{ K}$; ○, $T = 298.15\text{ K}$; ▼, $T = 308.15\text{ K}$; Δ, $T = 318.15\text{ K}$, 9.88% $\text{Na}_2\text{S}_2\text{O}_3$

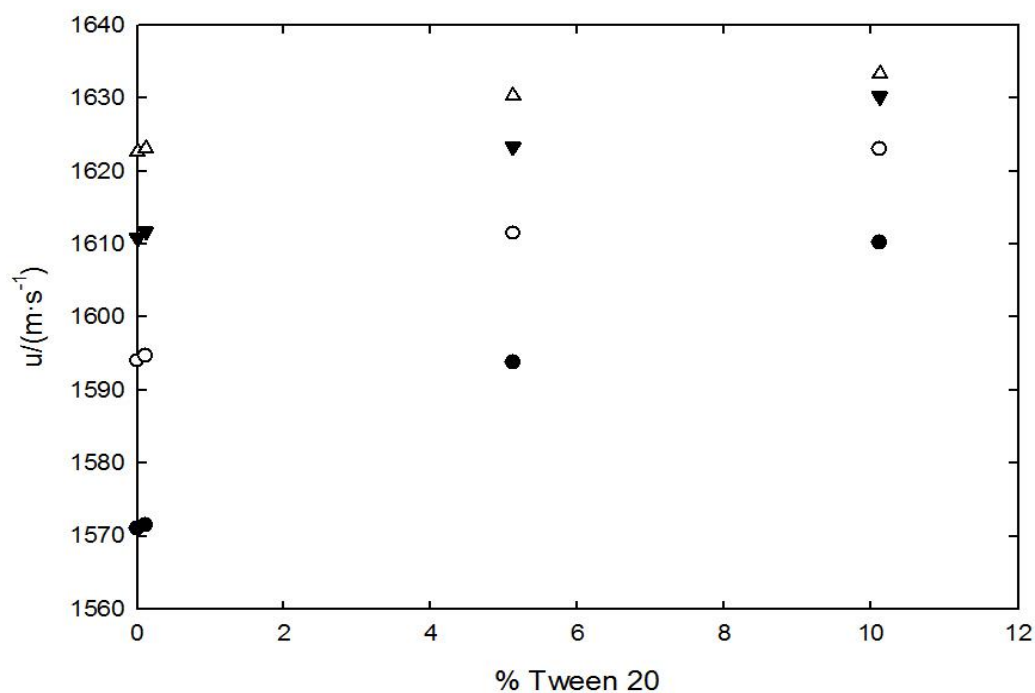


Figura G-159. Velocidad del sonido para el sistema ternario Tween 20 (1) - $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 9.88% $\text{Na}_2\text{S}_2\text{O}_3$

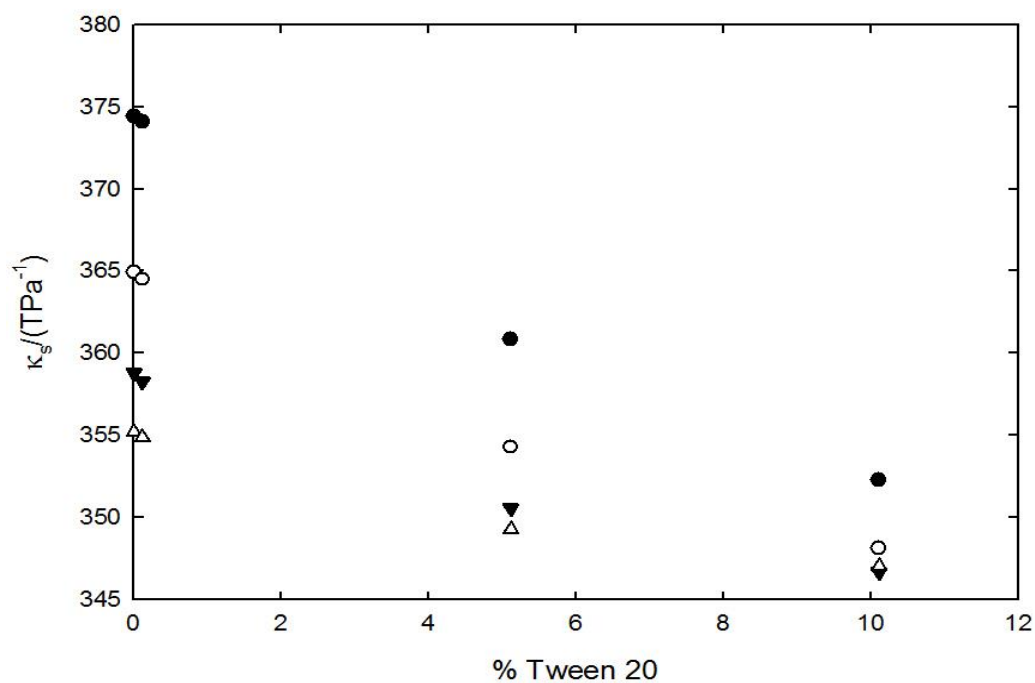


Figura G-160. Compresibilidad isoentrópica para el sistema ternario Tween 20 (1) - $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 9.88% $\text{Na}_2\text{S}_2\text{O}_3$

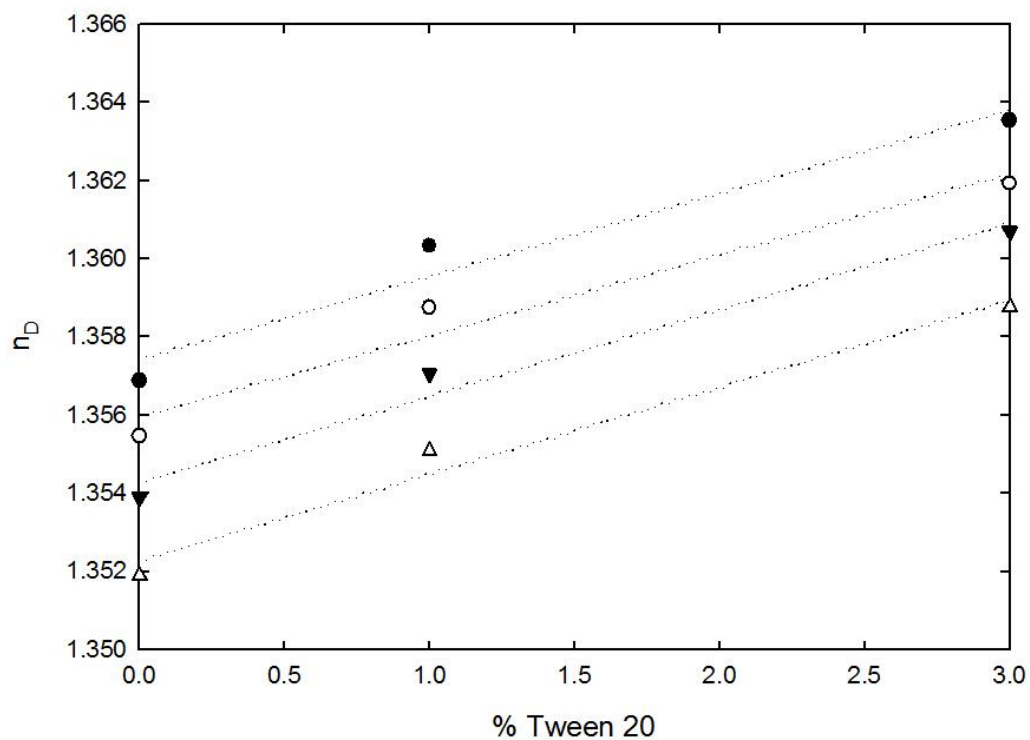


Figura G-161. Índice de refracción para el sistema ternario Tween 20 (1) - $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 12.00% $\text{Na}_2\text{S}_2\text{O}_3$

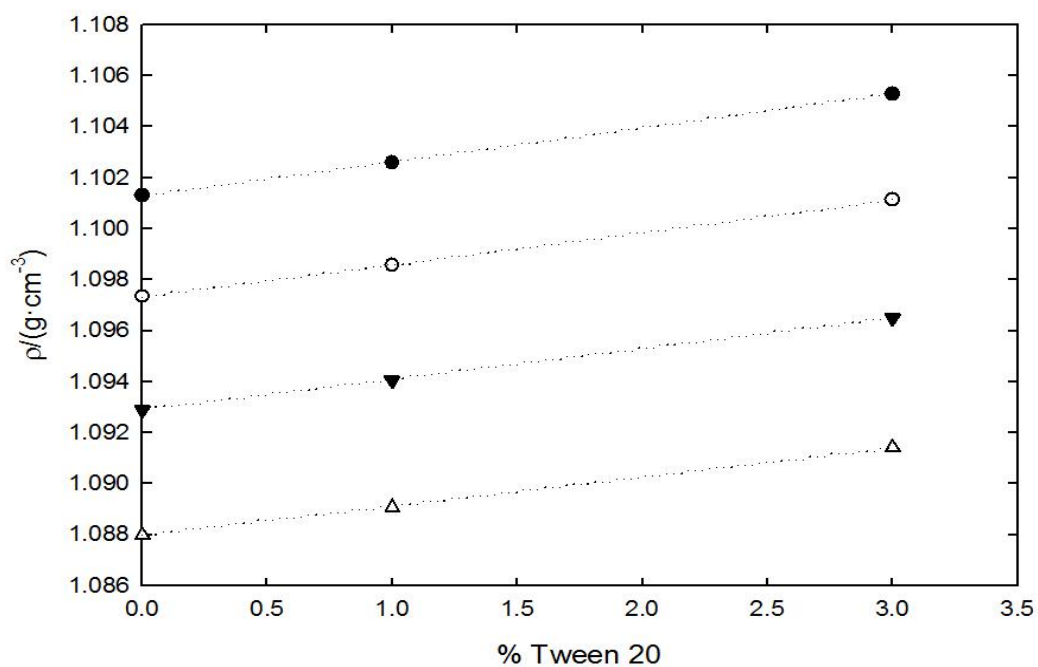


Figura G-162. Densidad para el sistema ternario Tween 20 (1) - $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 12.00% $\text{Na}_2\text{S}_2\text{O}_3$

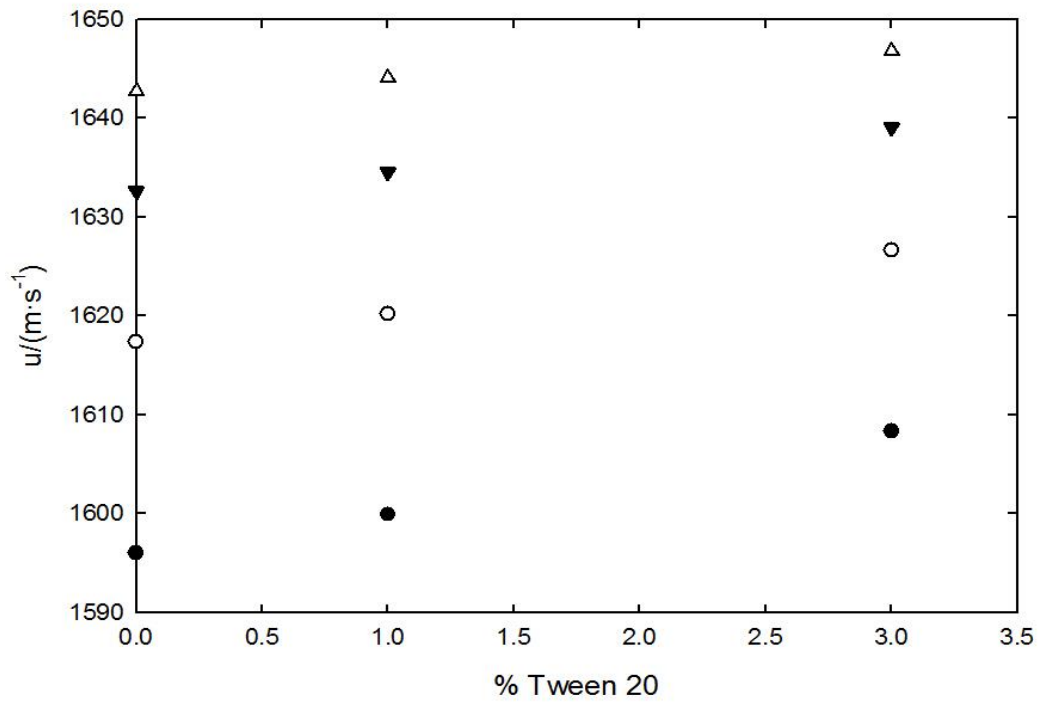


Figura G-163. Velocidad del sonido para el sistema ternario Tween 20 (1) - $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 12.00% $\text{Na}_2\text{S}_2\text{O}_3$

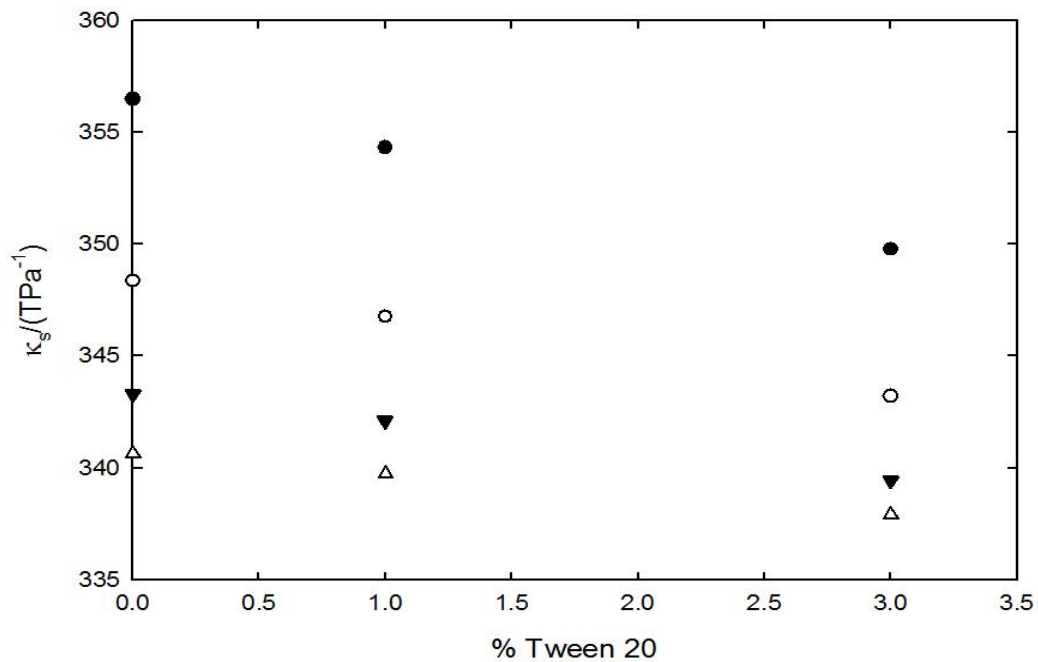


Figura G-164. Compresibilidad isoentrópica para el sistema ternario Tween 20 (1) - $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 12.00% $\text{Na}_2\text{S}_2\text{O}_3$

G.1.6.3. Tween 20 – K₂HPO₄ – agua

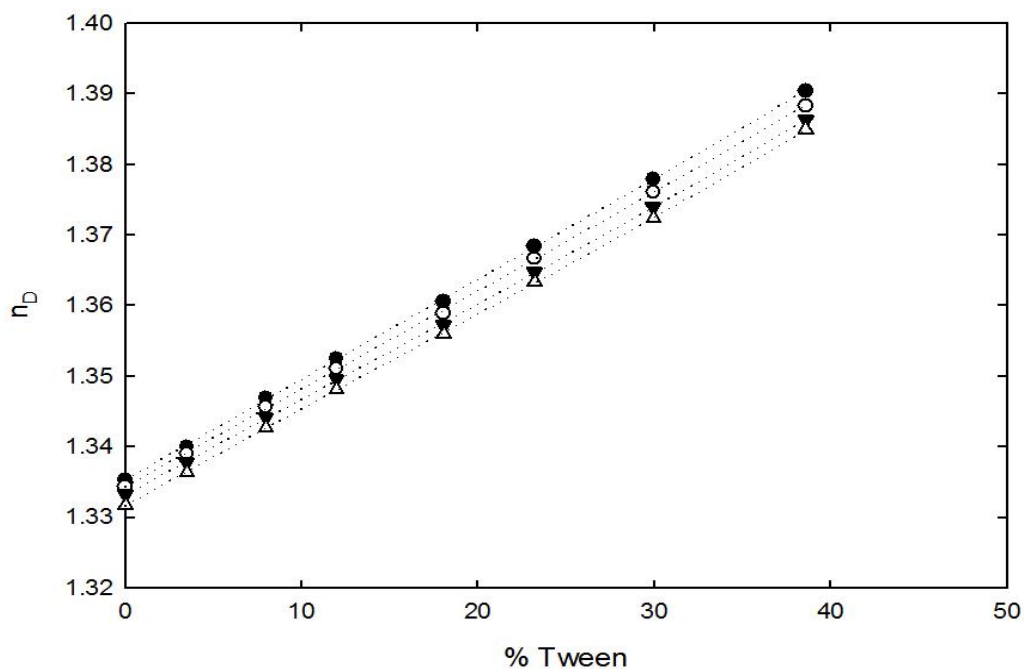


Figura G-165. Índice de refracción para el sistema ternario Tween 20 (1) - K₂HPO₄ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 1.57% K₂HPO₄

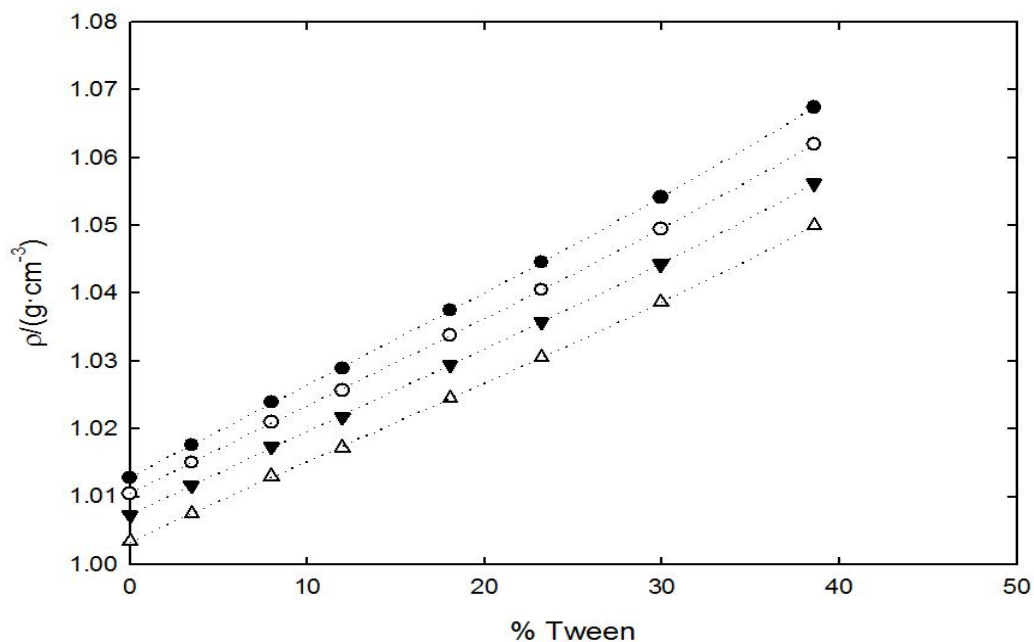


Figura G-166. Densidad para el sistema ternario Tween 20 (1) - K₂HPO₄ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 1.57% K₂HPO₄

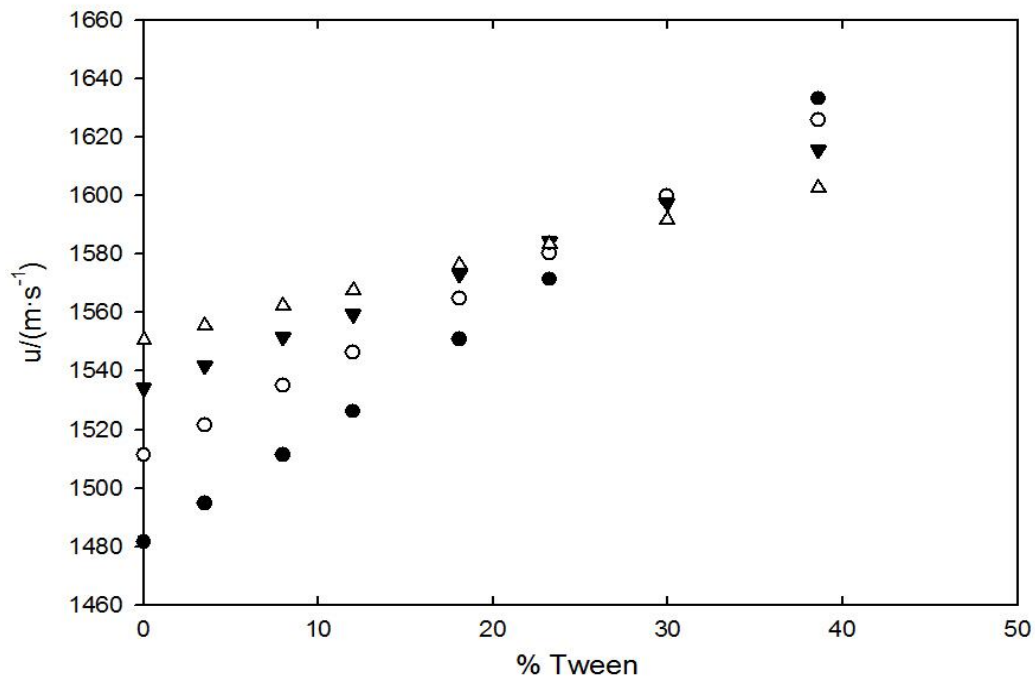


Figura G-167. Velocidad del sonido para el sistema ternario Tween 20 (1) - K_2HPO_4 (2) – agua (3) a, ● $T=288.15$ K; ○, $T = 298.15$ K; ▼, $T = 308.15$ K; △, $T = 318.15$ K, 1.57% K_2HPO_4

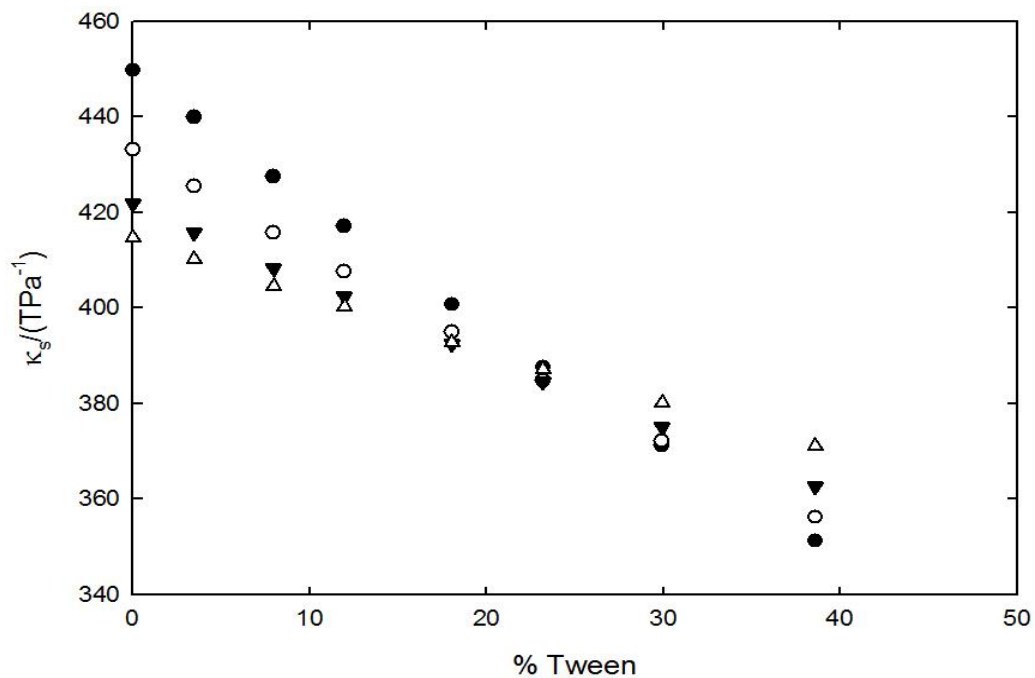


Figura G-168. Compresibilidad isoentrópica para el sistema ternario Tween 20 (1) - K_2HPO_4 (2) – agua (3) a, ● $T=288.15$ K; ○, $T = 298.15$ K; ▼, $T = 308.15$ K; △, $T = 318.15$ K, 1.57% K_2HPO_4

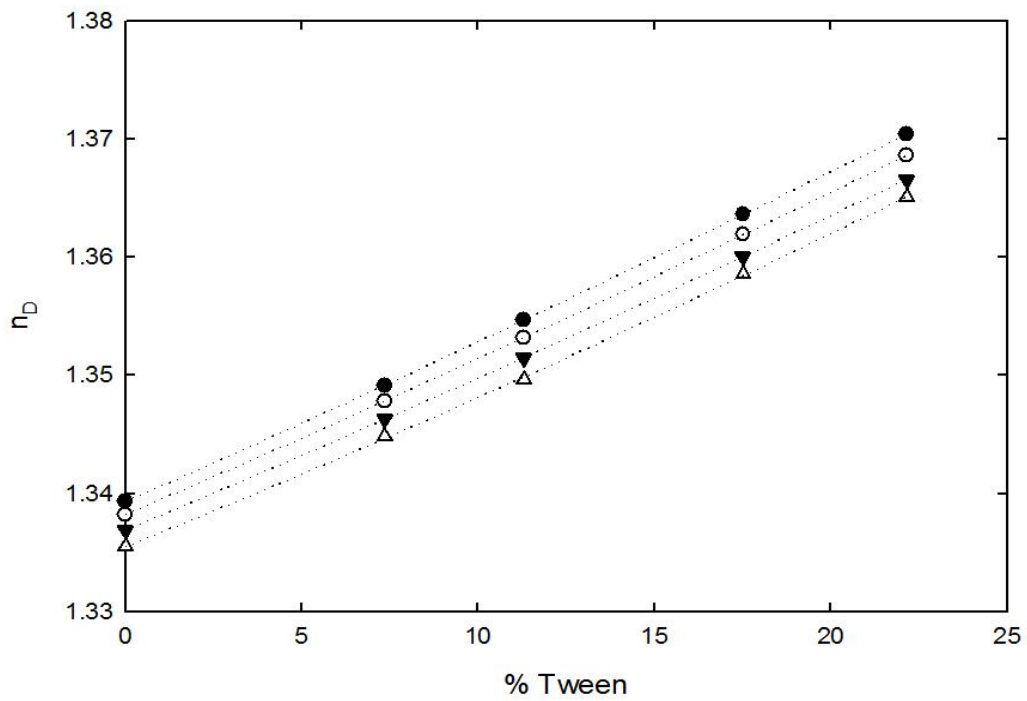


Figura G-169. Índice de refracción para el sistema ternario Tween 20 (1) - K_2HPO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 3.20% K_2HPO_4

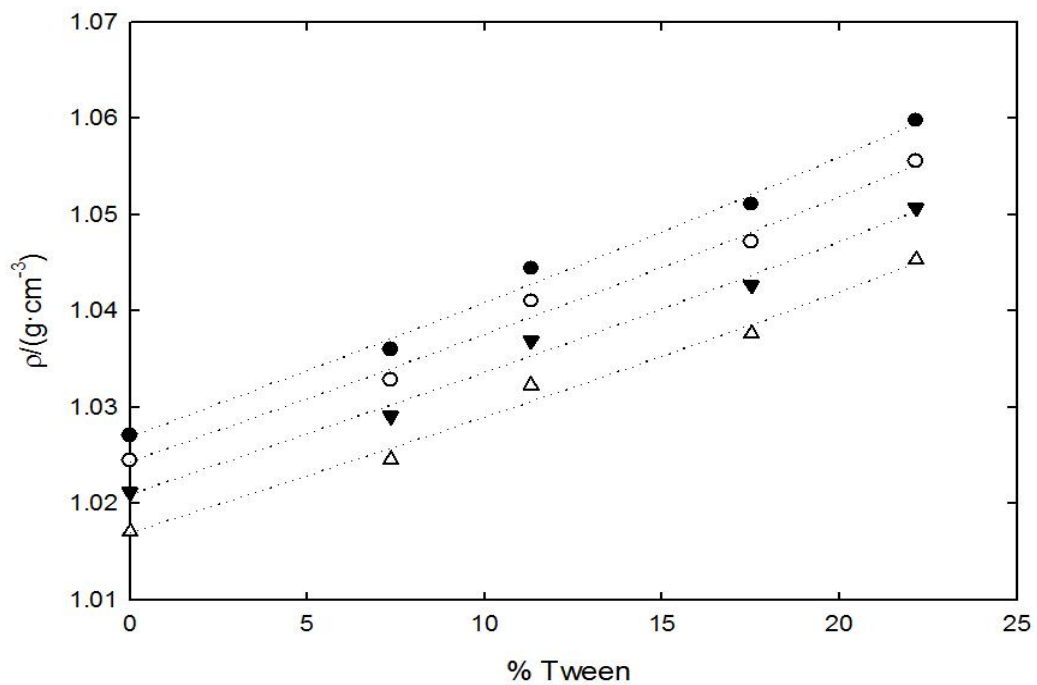


Figura G-170. Densidad para el sistema ternario Tween 20 (1) - K_2HPO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 3.20% K_2HPO_4

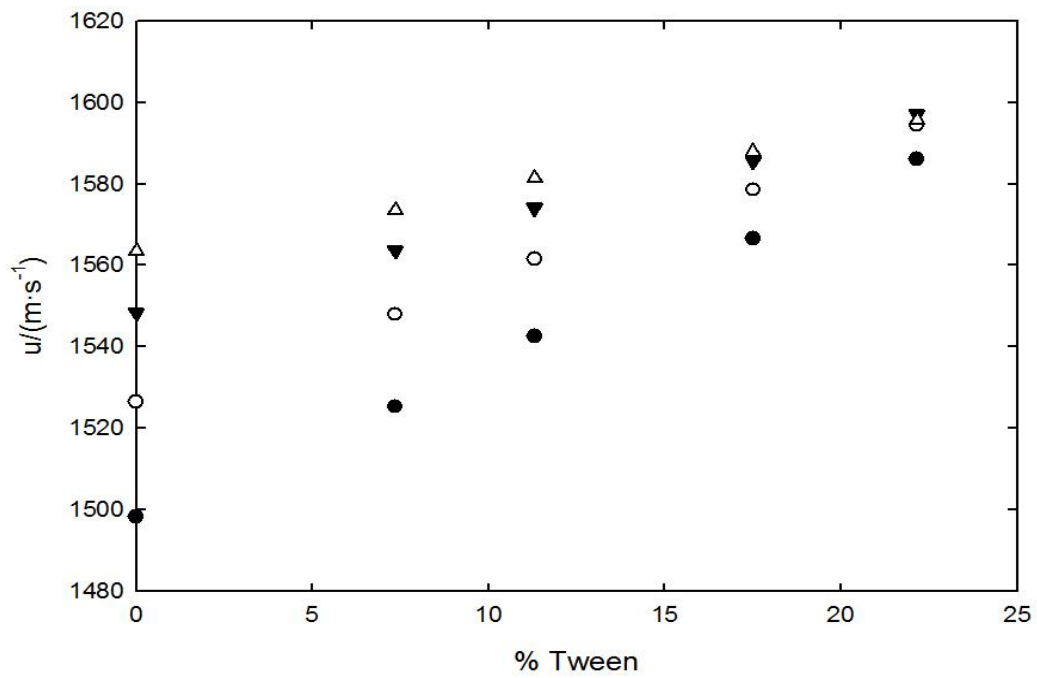


Figura G-171. Velocidad del sonido para el sistema ternario Tween 20 (1) - K_2HPO_4 (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 3.20% K_2HPO_4

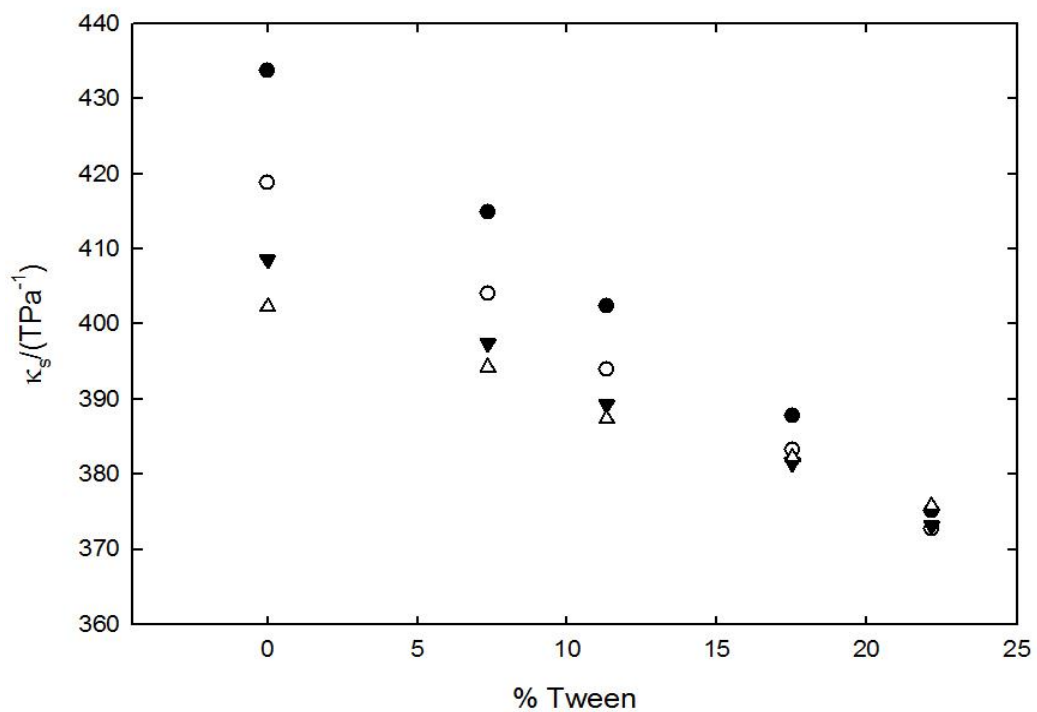


Figura G-172. Compresibilidad isoentrópica para el sistema ternario Tween 20 (1) - K_2HPO_4 (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 3.20% K_2HPO_4

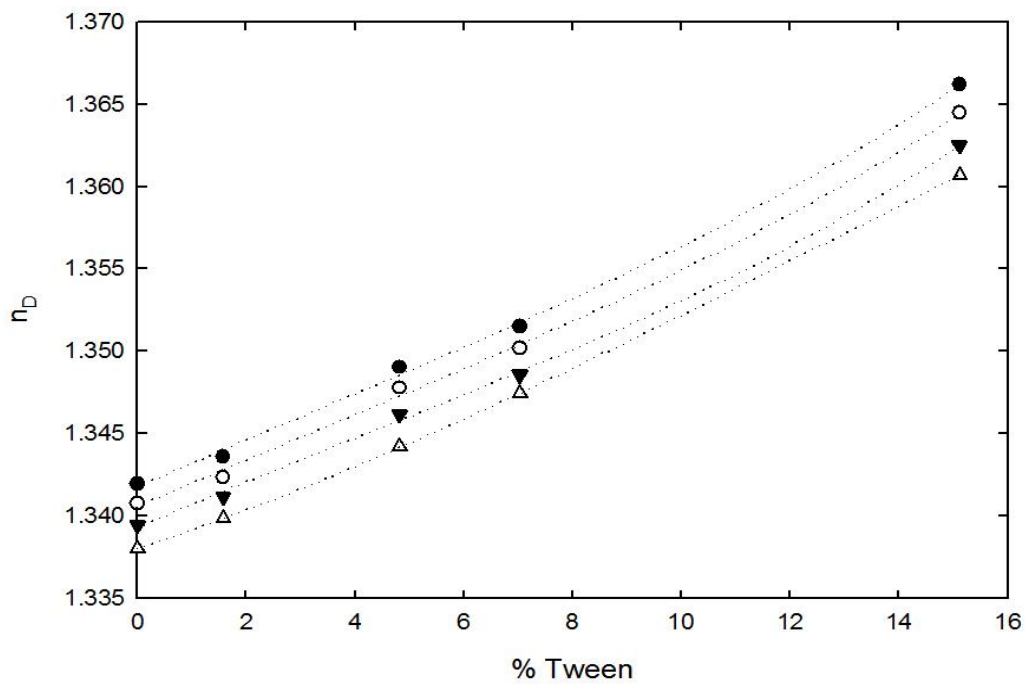


Figura G-173. Índice de refracción para el sistema ternario Tween 20 (1) - K_2HPO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 5.19% K_2HPO_4

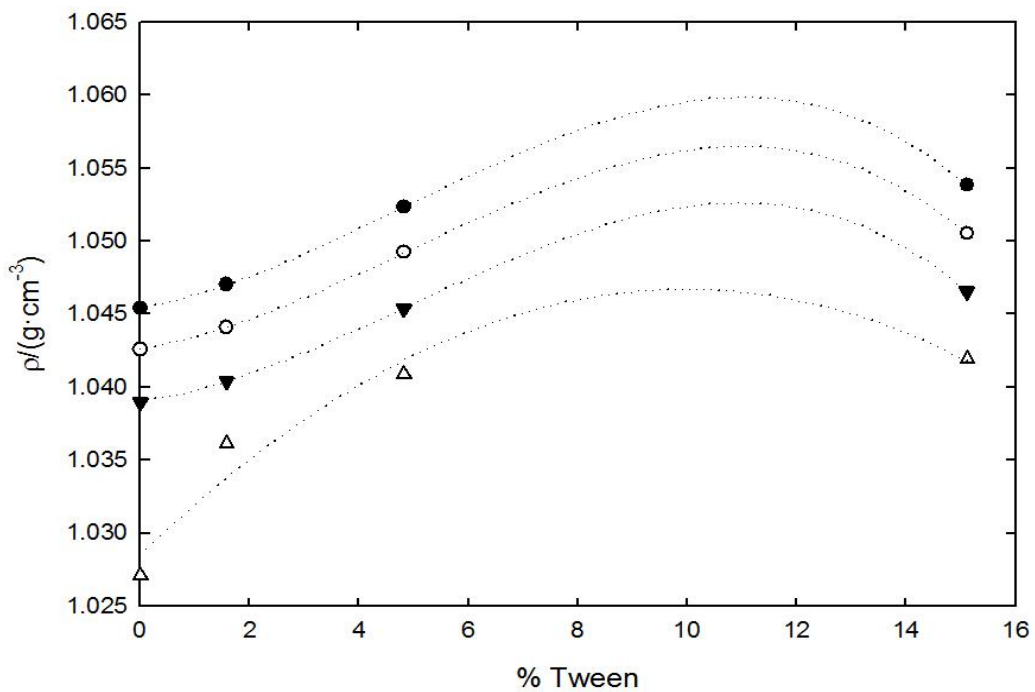


Figura G-174. Densidad para el sistema ternario Tween 20 (1) - K_2HPO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 5.19% K_2HPO_4

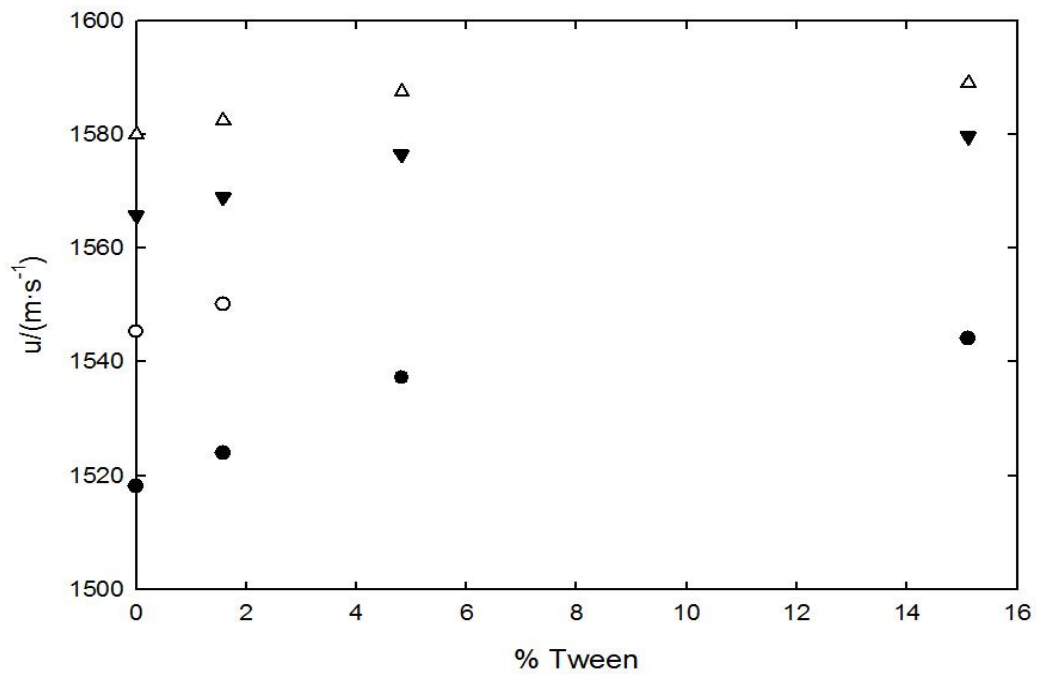


Figura G-175. Velocidad del sonido para el sistema ternario Tween 20 (1) - K_2HPO_4 (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 5.19% K_2HPO_4

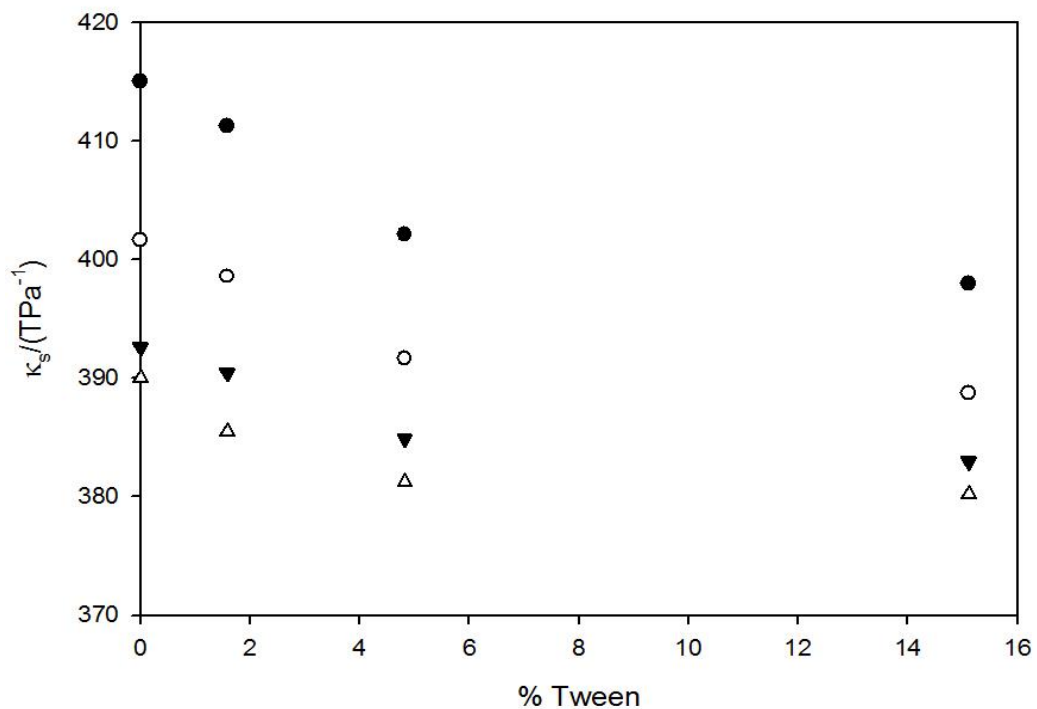


Figura G-176. Compresibilidad isoentrópica para el sistema ternario Tween 20 (1) - K_2HPO_4 (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 5.19% K_2HPO_4

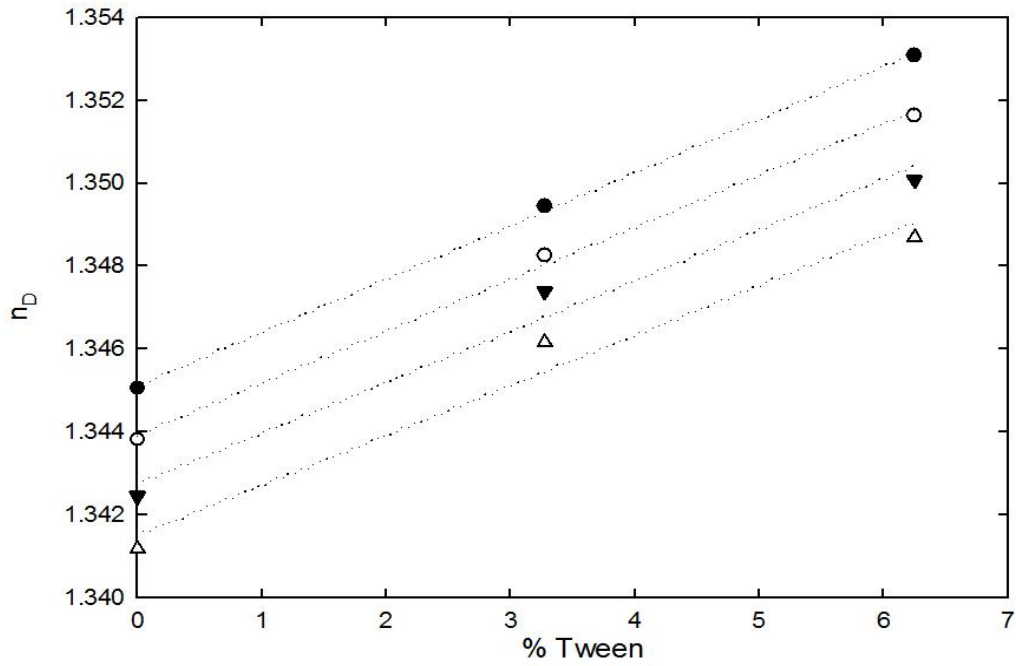


Figura G-177. Índice de refracción para el sistema ternario Tween 20 (1) - K_2HPO_4 (2) - agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 7.19% K_2HPO_4

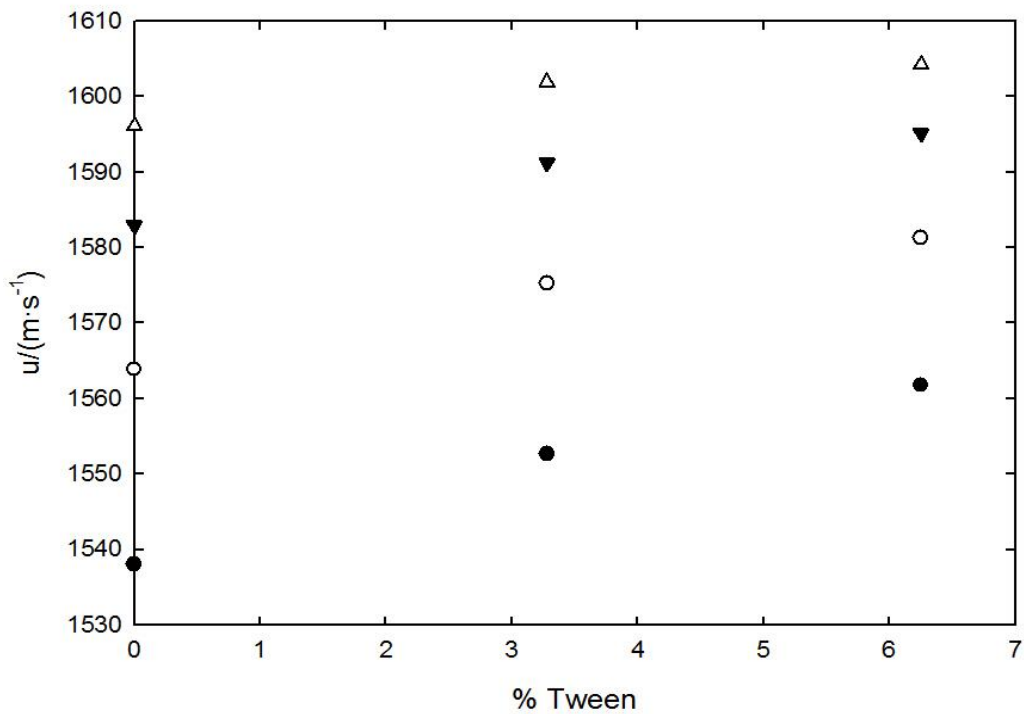


Figura G-178. Densidad para el sistema ternario Tween 20 (1) - K_2HPO_4 (2) - agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 7.19% K_2HPO_4

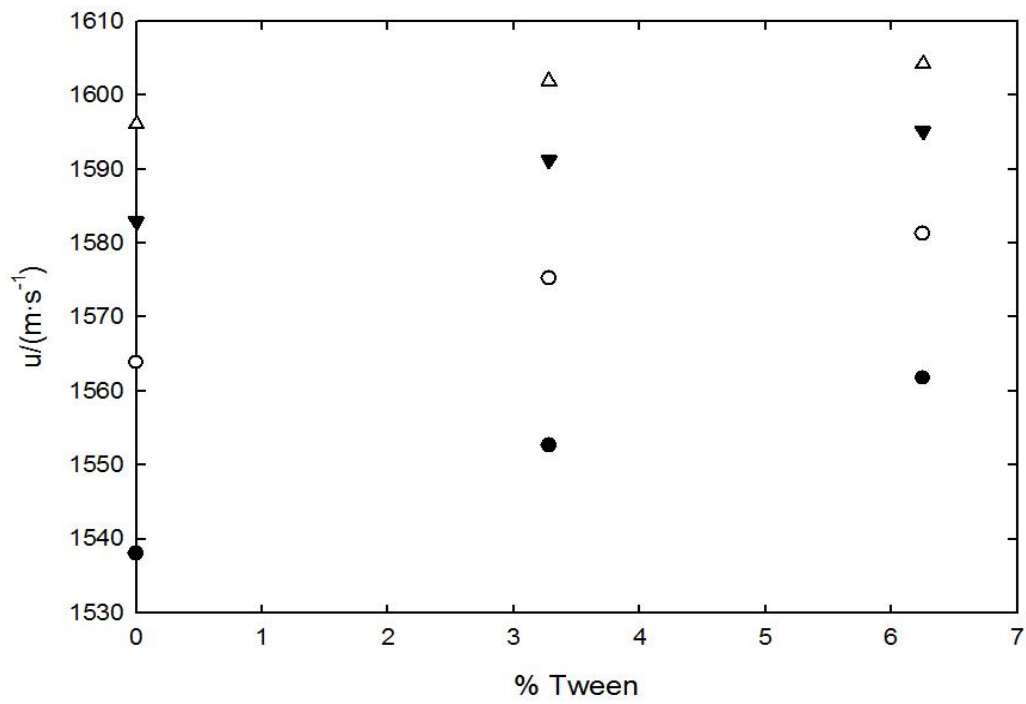


Figura G-179. Velocidad del sonido para el sistema ternario Tween 20 (1) - K_2HPO_4 (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 7.19% K_2HPO_4

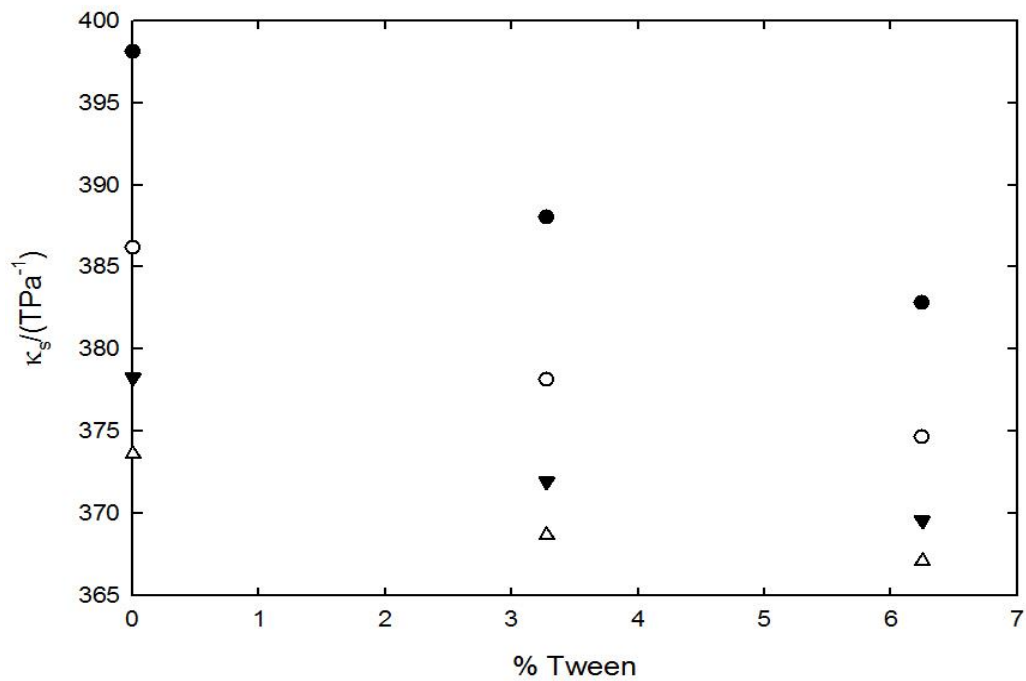


Figura G-180. Compresibilidad isoentrópica para el sistema ternario Tween 20 (1) - K_2HPO_4 (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 7.19% K_2HPO_4

G.1.6.4. Tween 20 – K₃PO₄ – agua

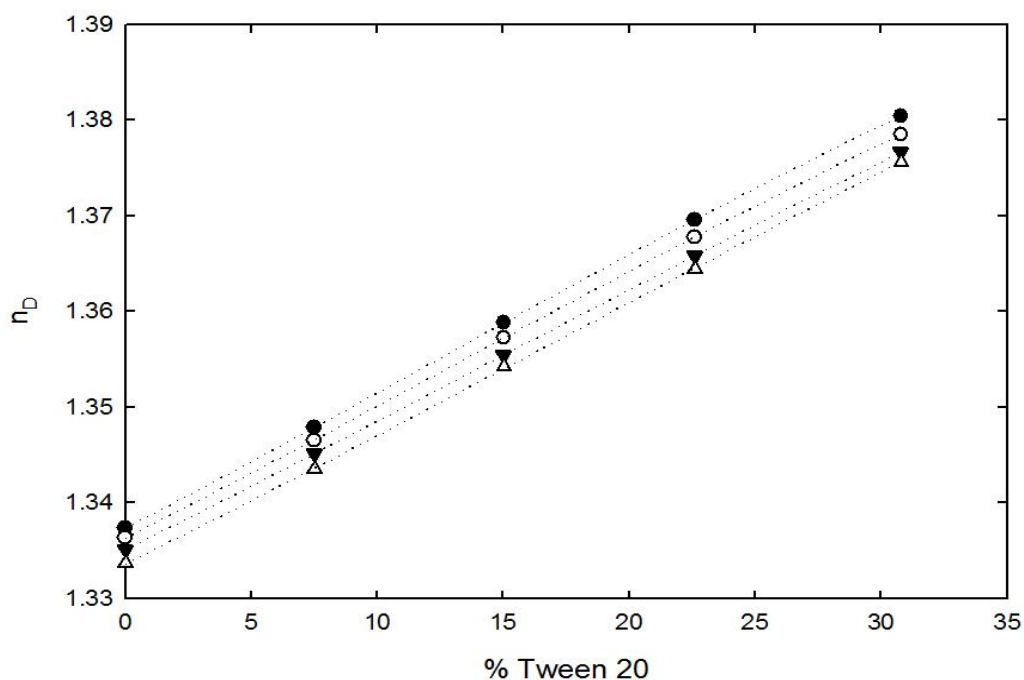


Figura G-181. Índice de refracción para el sistema ternario Tween 20 (1) - K₃PO₄ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 2.00% K₃PO₄

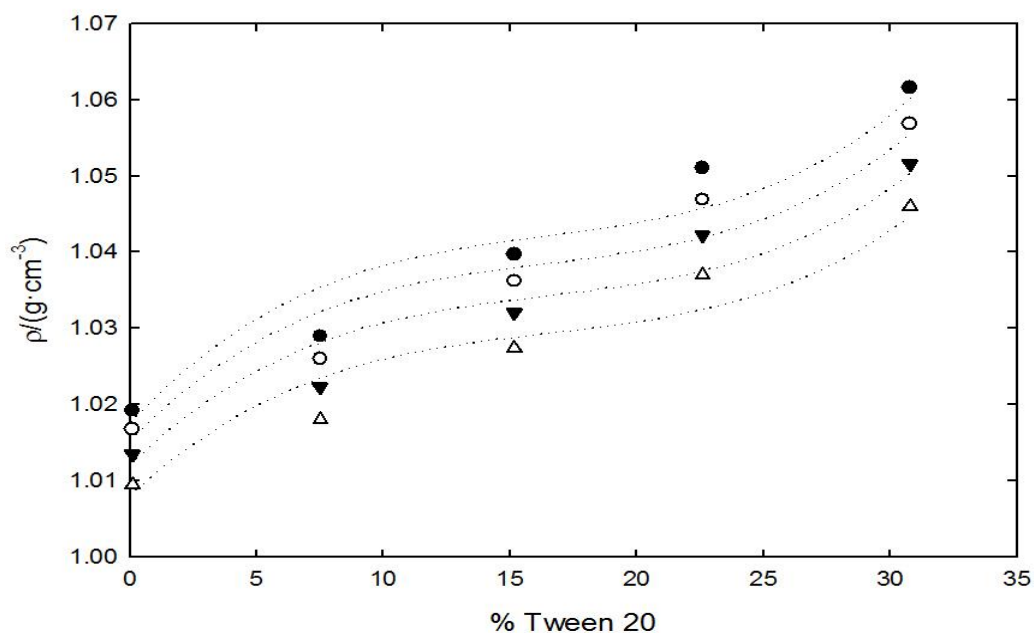


Figura G-182. Densidad para el sistema ternario Tween 20 (1) - K₃PO₄ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 2.00% K₃PO₄

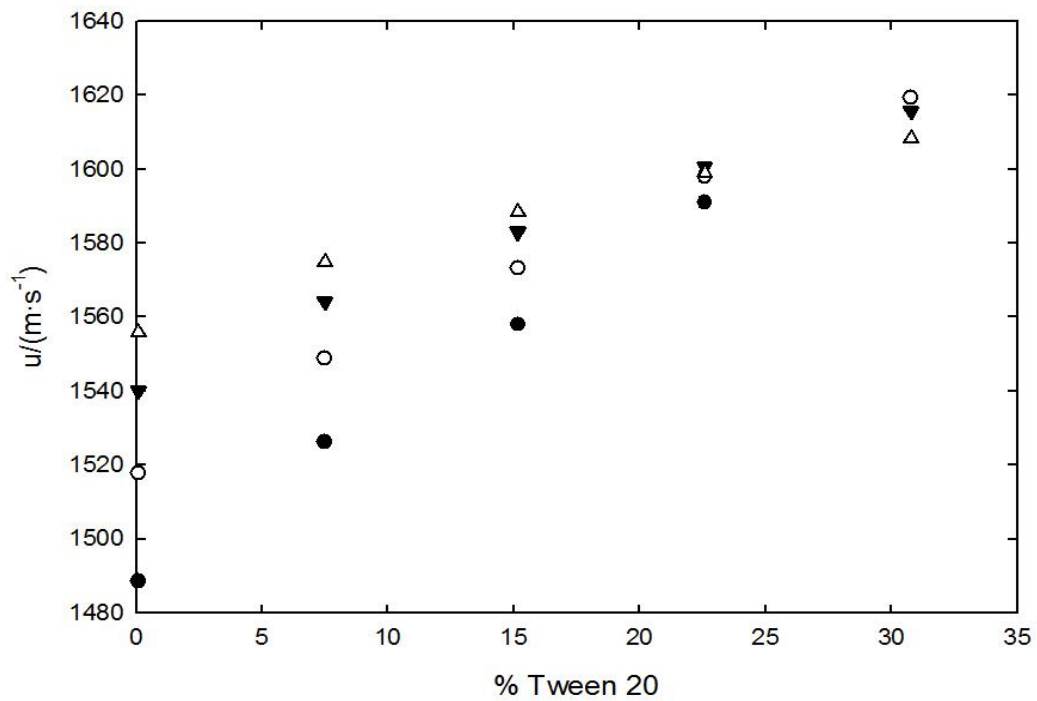


Figura G-183. Velocidad del sonido para el sistema ternario Tween 20 (1) - K_3PO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 2.00% K_3PO_4

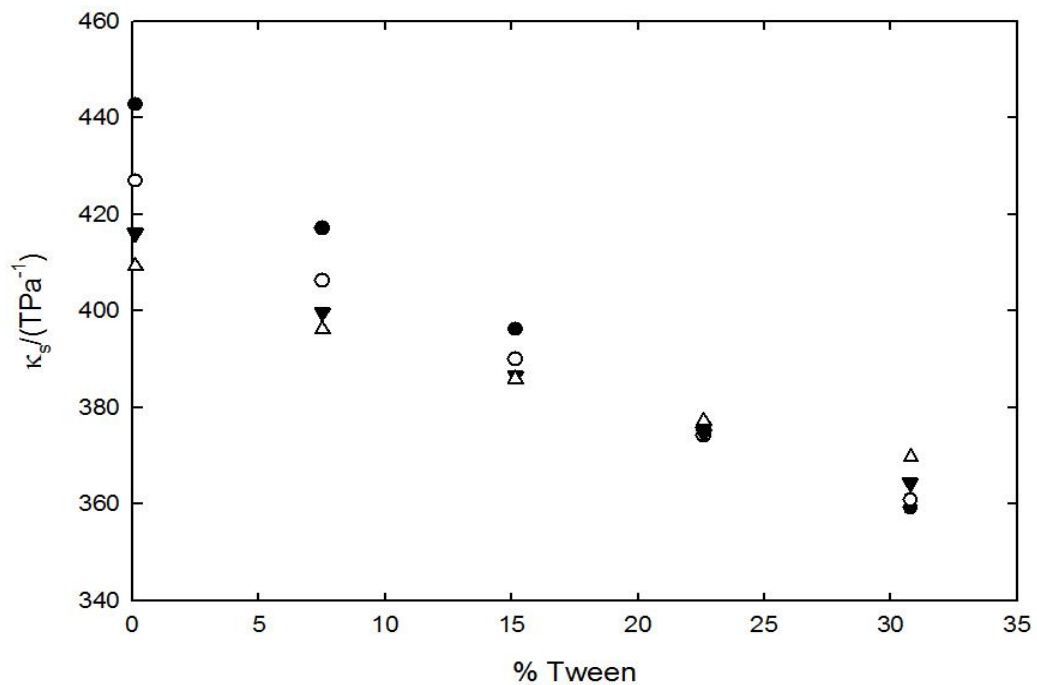


Figura G-184. Compresibilidad isoentrópica para el sistema ternario Tween 20 (1) - K_3PO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 2.00% K_3PO_4

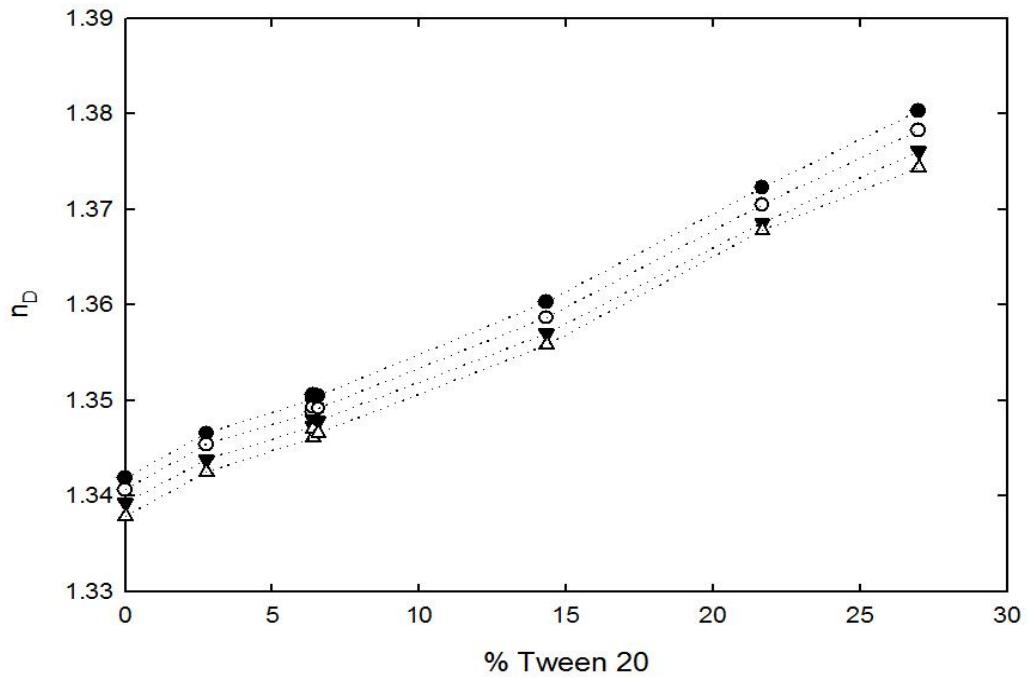


Figura G-185. Índice de refracción para el sistema ternario Tween 20 (1) - K_3PO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 4.43% K_3PO_4

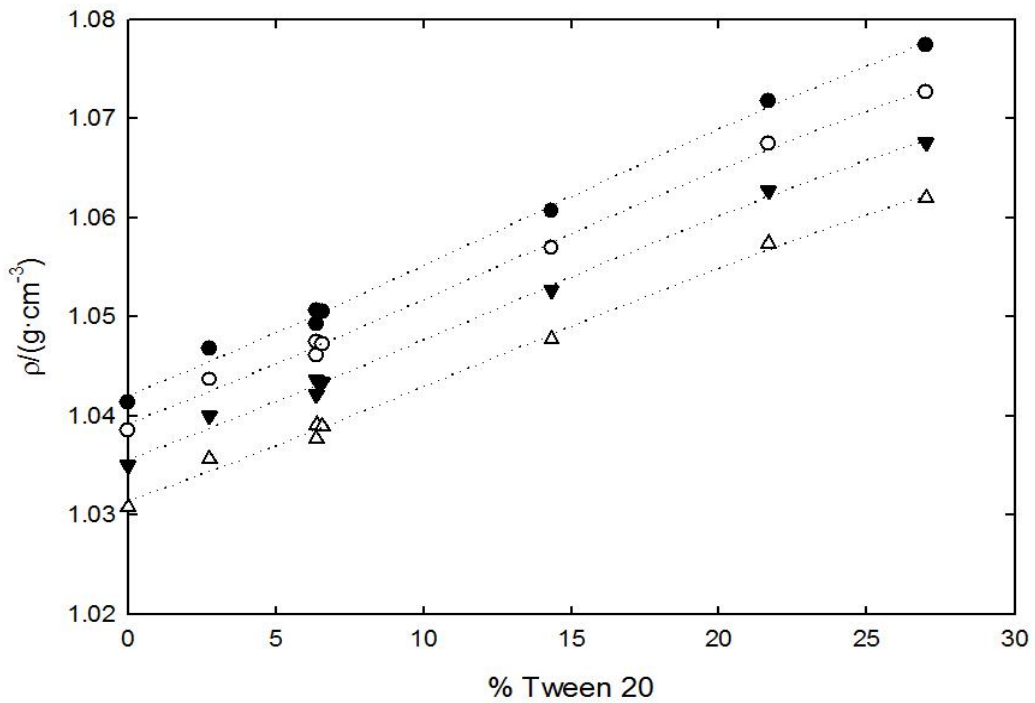


Figura G-186. Densidad para el sistema ternario Tween 20 (1) - K_3PO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 4.43% K_3PO_4

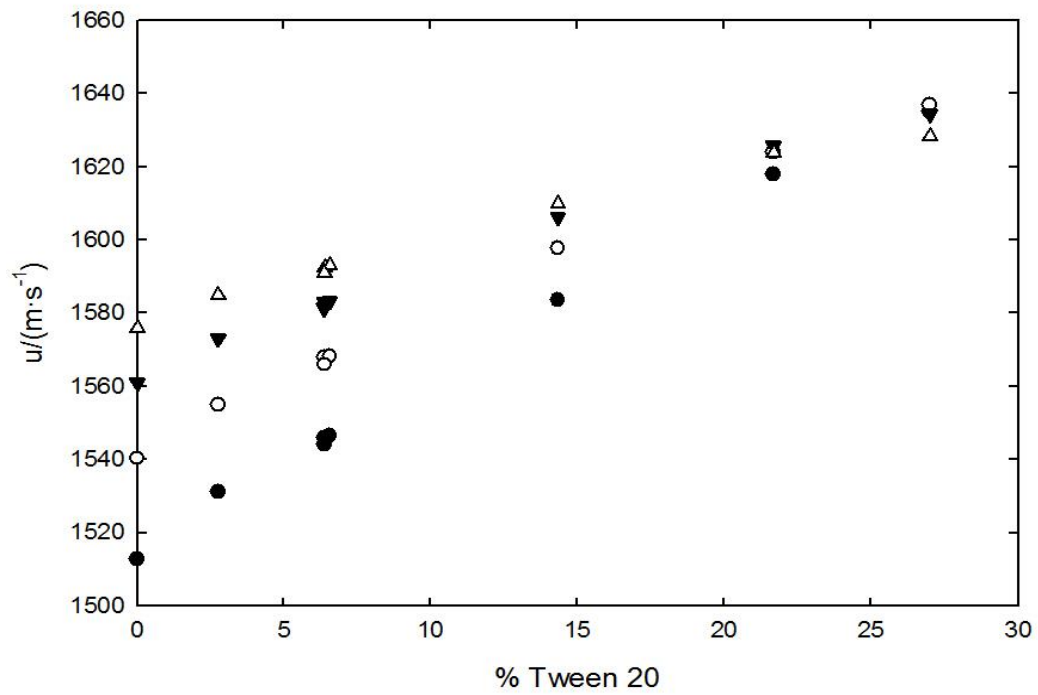


Figura G-187. Velocidad del sonido para el sistema ternario Tween 20 (1) - K_3PO_4 (2) – agua (3) a, ● $T=288.15$ K; ○, $T = 298.15$ K; ▼, $T = 308.15$ K; △, $T = 318.15$ K, 4.43% K_3PO_4

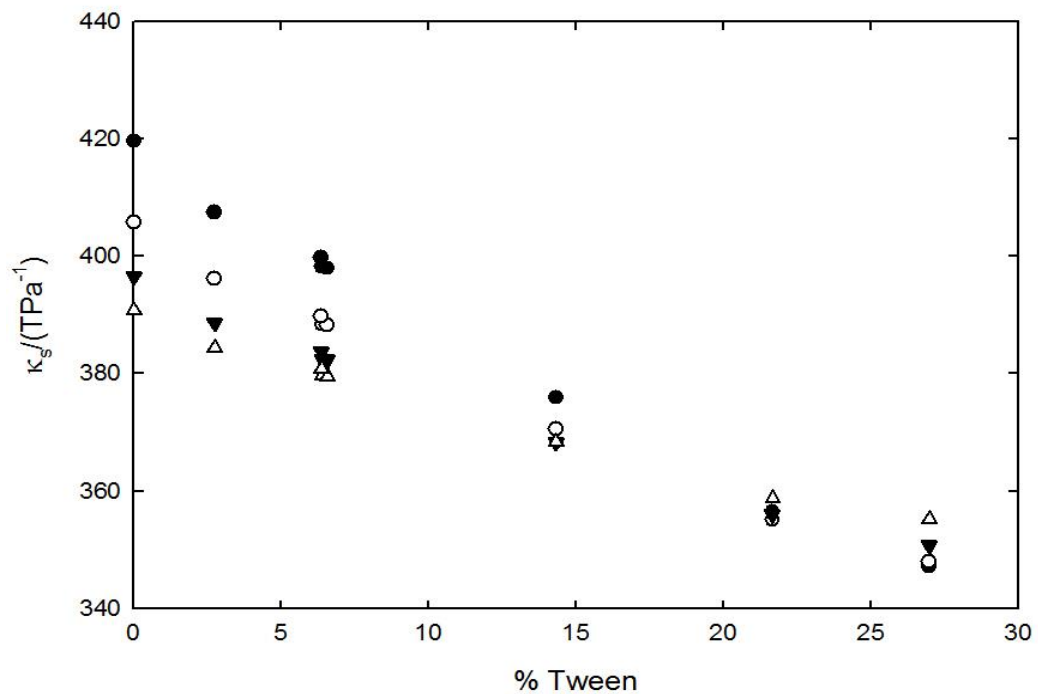


Figura G-188. Compresibilidad isoentrópica para el sistema ternario Tween 20 (1) - K_3PO_4 (2) – agua (3) a, ● $T=288.15$ K; ○, $T = 298.15$ K; ▼, $T = 308.15$ K; △, $T = 318.15$ K, 4.43% K_3PO_4

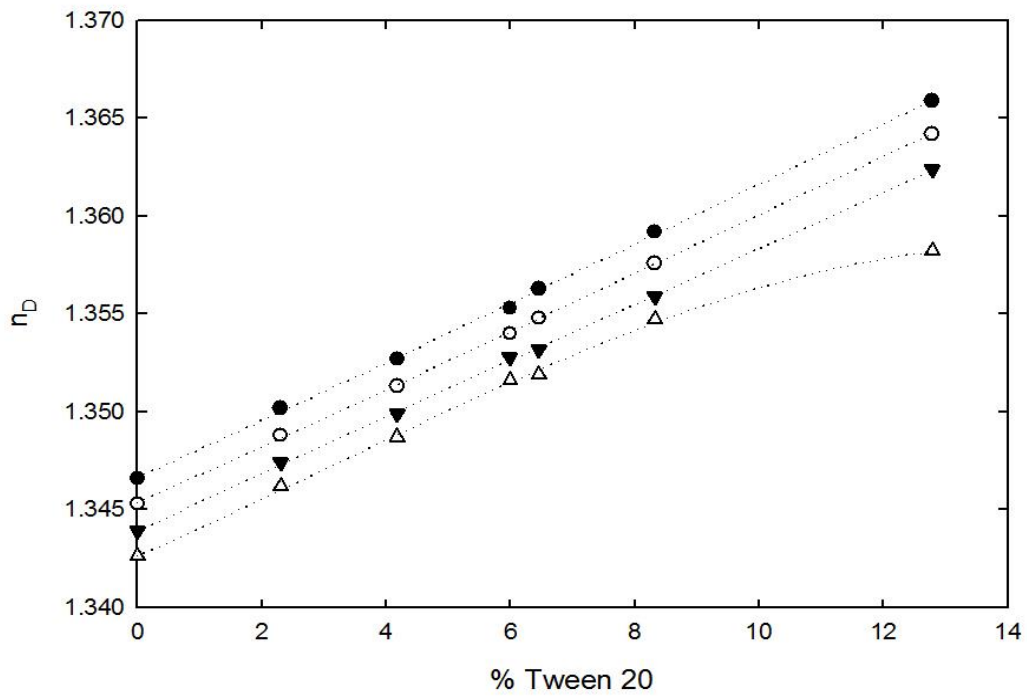


Figura G-189. Índice de refracción para el sistema ternario Tween 20 (1) - K_3PO_4 (2) - agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 7.41% K_3PO_4

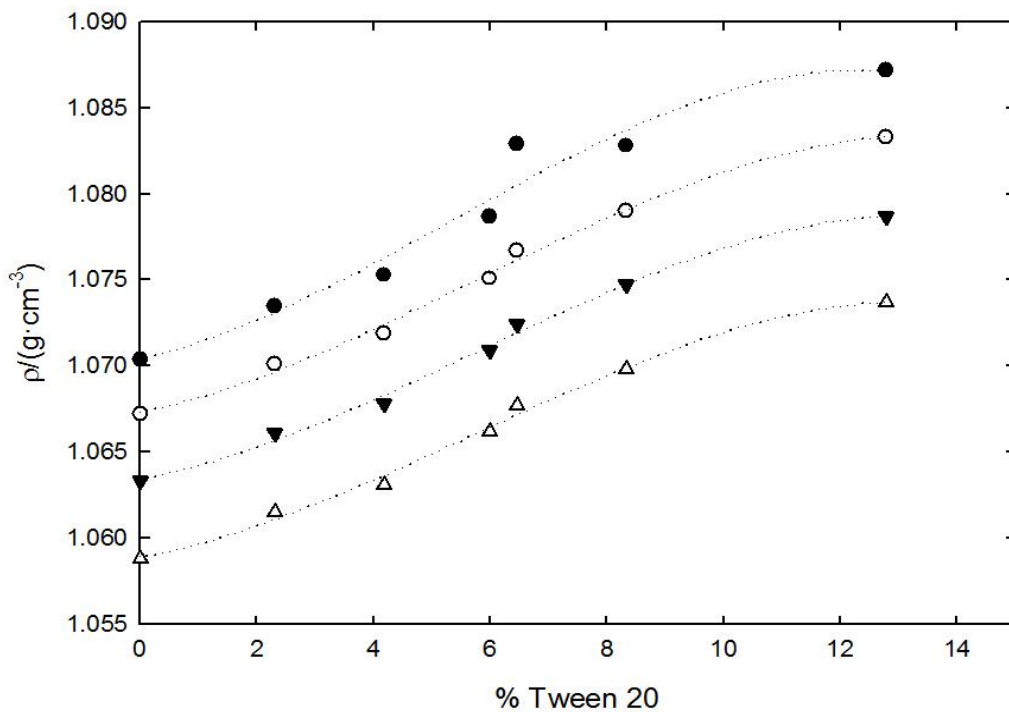


Figura G-190. Densidad para el sistema ternario Tween 20 (1) - K_3PO_4 (2) - agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 7.41% K_2HPO_4

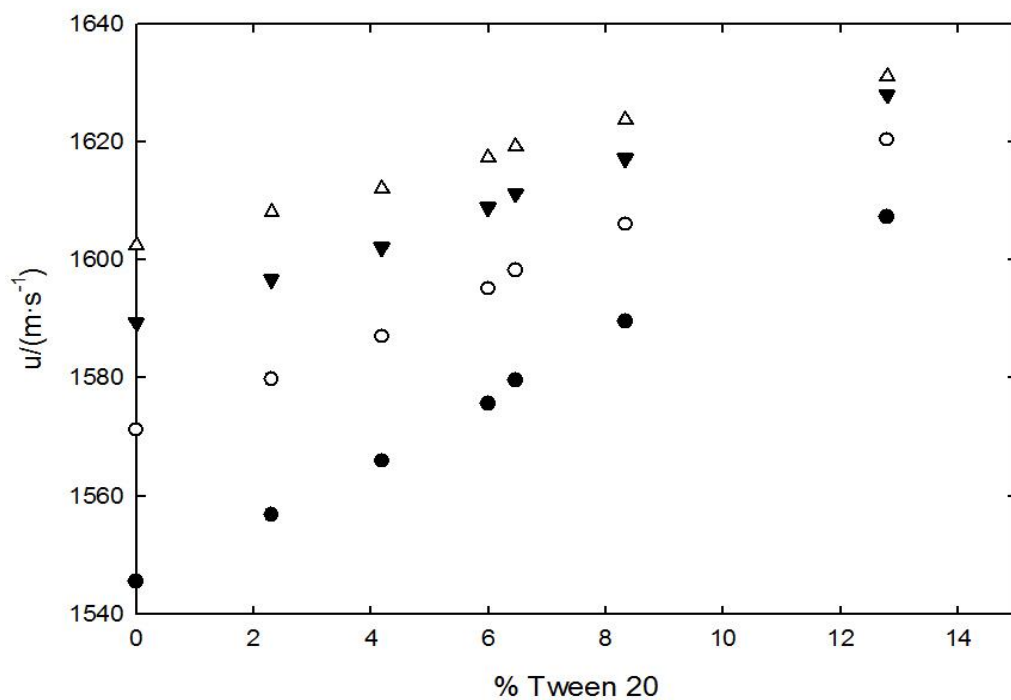


Figura G-191. Velocidad del sonido para el sistema ternario Tween 20 (1) - K_3PO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 7.41% K_3PO_4

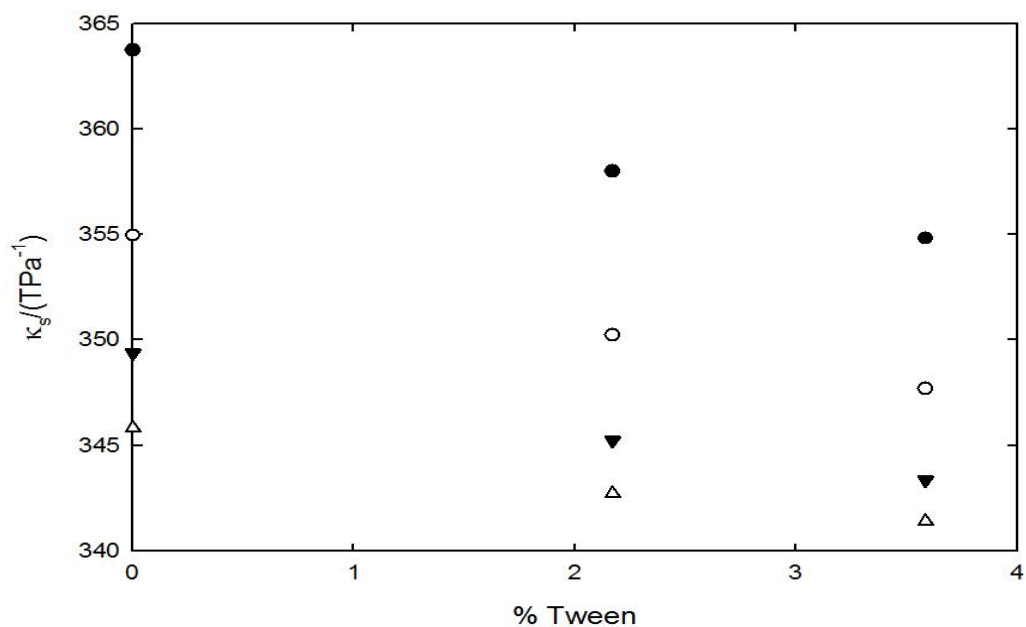


Figura G-192. Compresibilidad isoentrópica para el sistema ternario Tween 20 (1) - K_3PO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 7.41% K_3PO_4

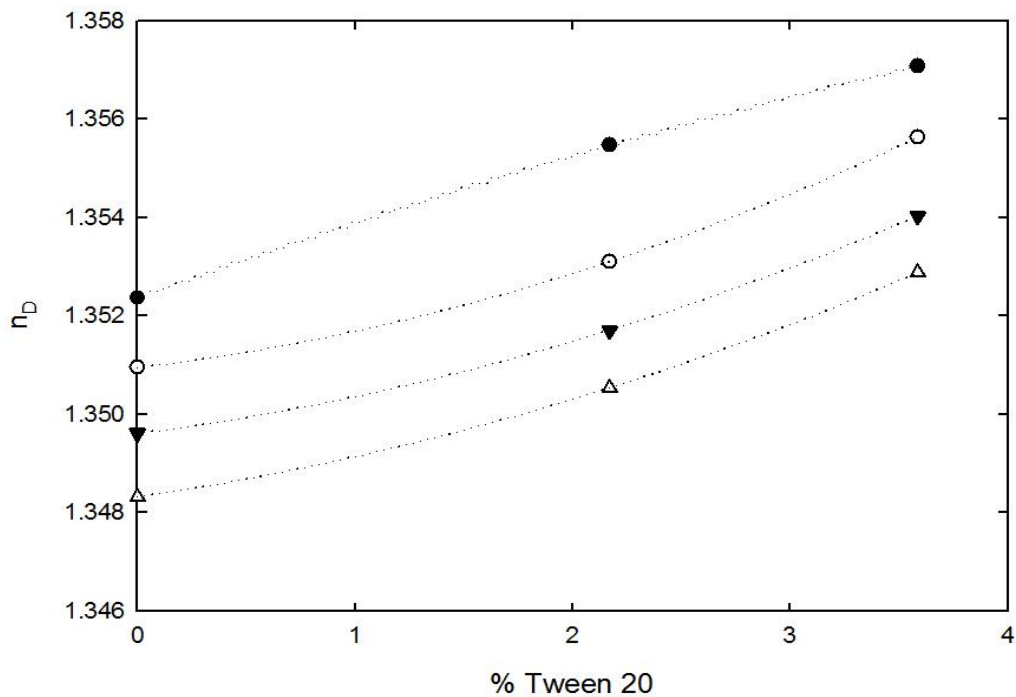


Figura G-193. Índice de refracción para el sistema ternario Tween 20 (1) - K_3PO_4 (2) – agua (3) a, ● $T=288.15\text{ K}$; ○, $T = 298.15\text{ K}$; ▼, $T = 308.15\text{ K}$; Δ, $T = 318.15\text{ K}$, 10.26% K_3PO_4

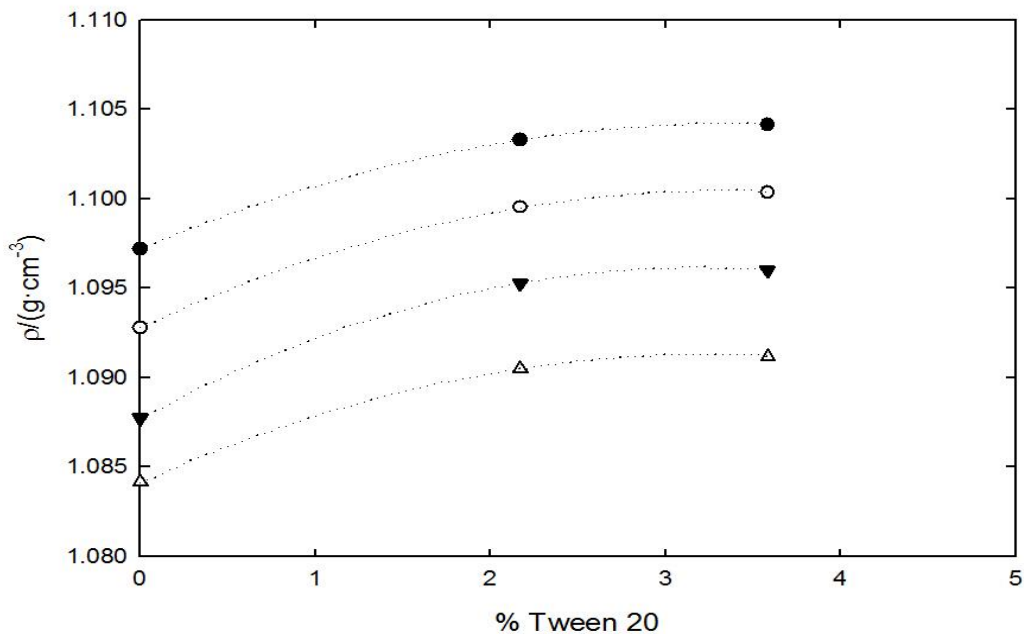


Figura G-194. Densidad para el sistema ternario Tween 20 (1) - K_2HPO_4 (2) – agua (3) a, ● $T=288.15\text{ K}$; ○, $T = 298.15\text{ K}$; ▼, $T = 308.15\text{ K}$; Δ, $T = 318.15\text{ K}$, 10.26% K_2HPO_4

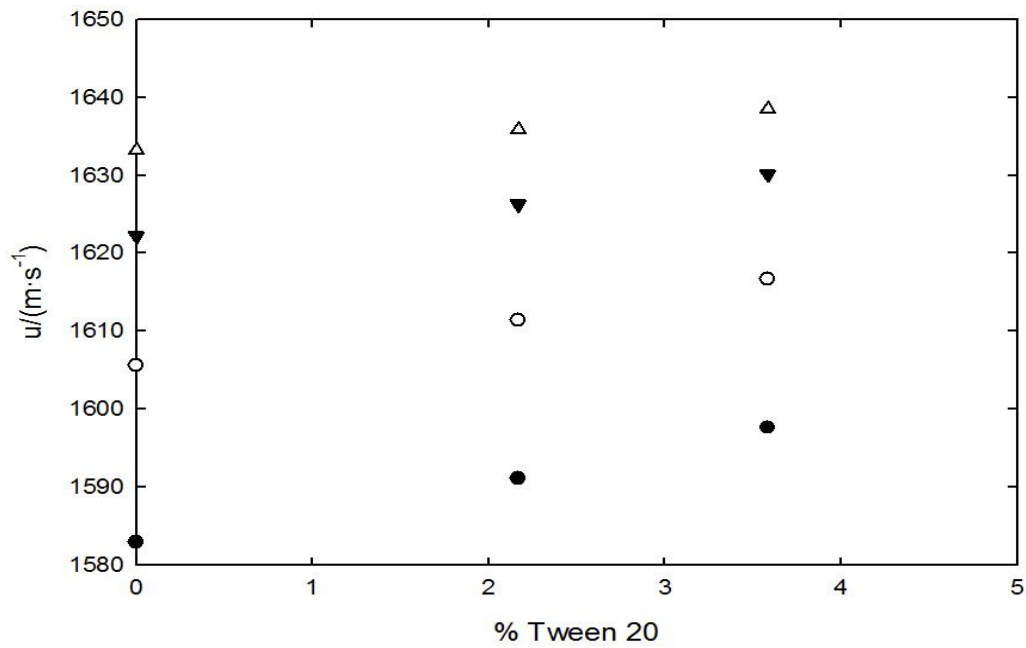


Figura G-195. Velocidad del sonido para el sistema ternario Tween 20 (1) - K_3PO_4 (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 10.26% K_3PO_4

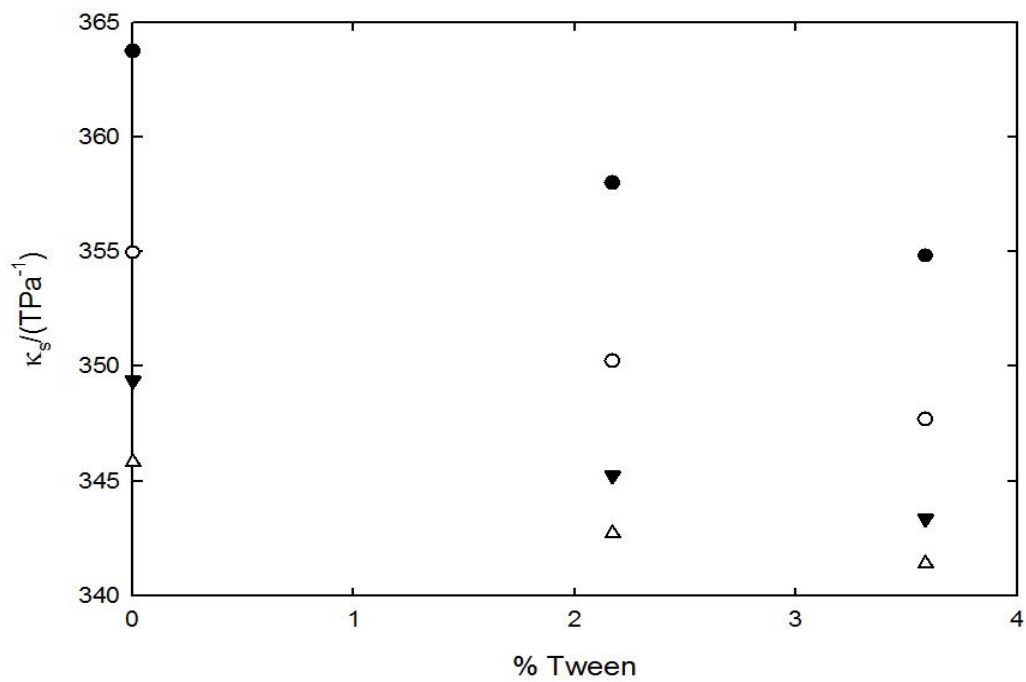


Figura G-196. Compresibilidad isoentrópica para el sistema ternario Tween 20 (1) - K_3PO_4 (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 10.26% K_3PO_4

G.1.6.5. Triton X-102 – Na₂SO₄ – agua

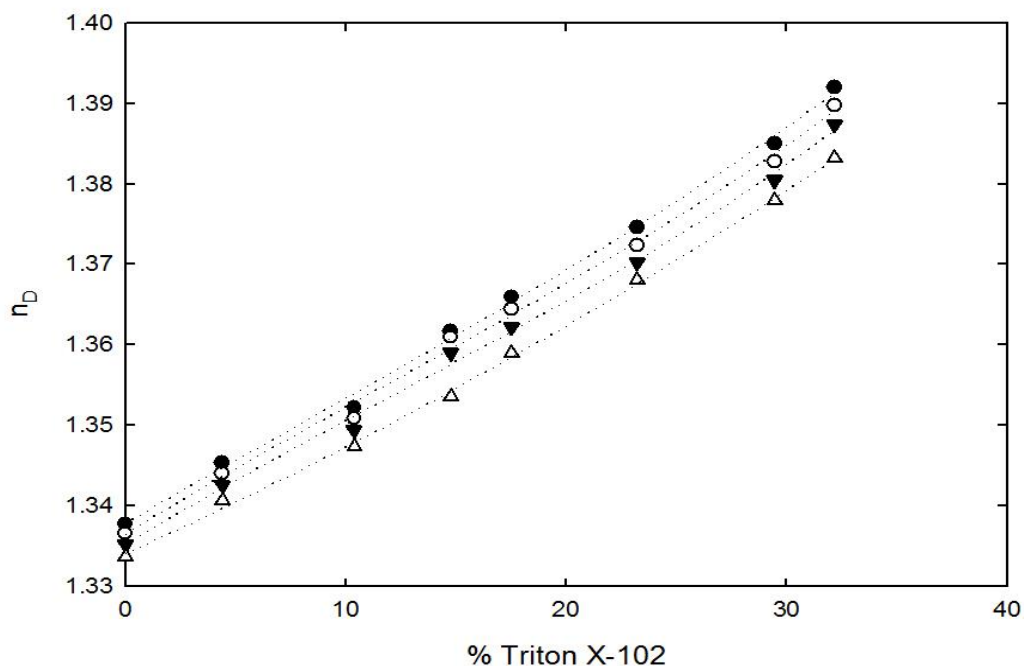


Figura G-197. Índice de refracción para el sistema ternario Triton X-102 (1) - Na₂SO₄ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 2.52% Na₂SO₄

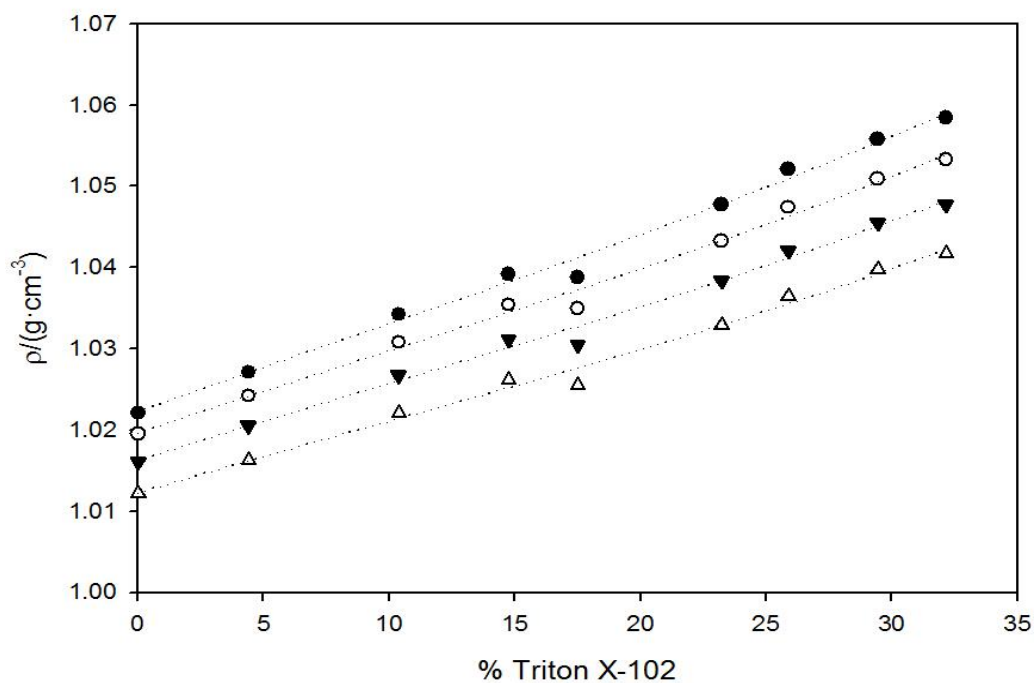


Figura G-198. Densidad para el sistema ternario Triton X-102 (1) - Na₂SO₄ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 2.52% Na₂SO₄

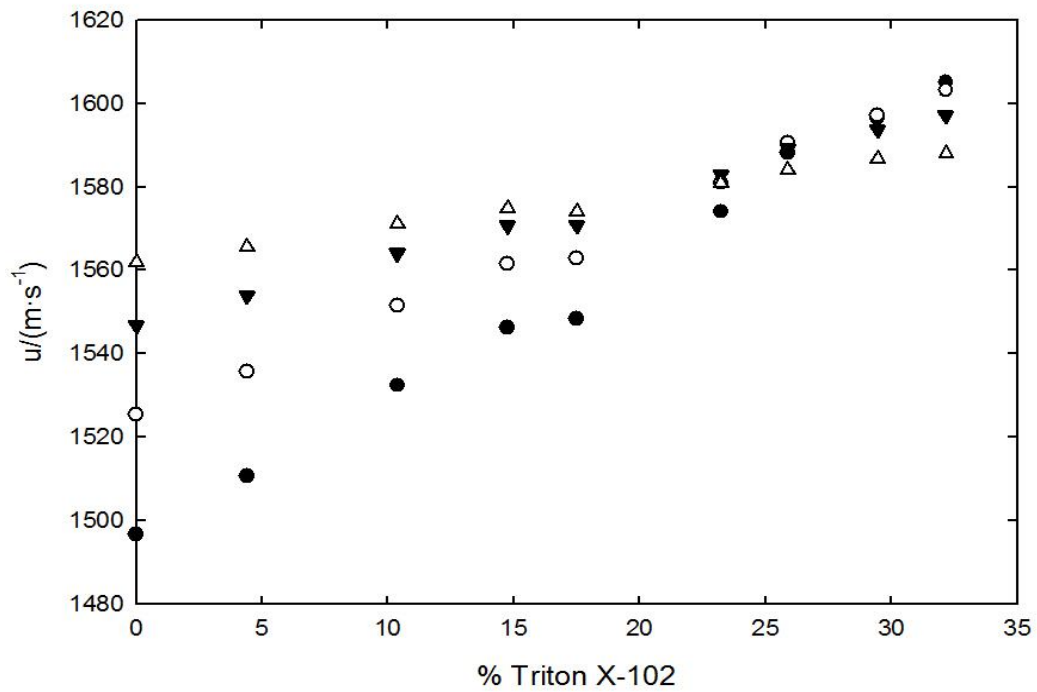


Figura G-199. Velocidad del sonido para el sistema ternario Triton X-102 (1) - Na_2SO_4 (2) – agua (3) a, ● $T=288.15$ K; ○, $T = 298.15$ K; ▼, $T = 308.15$ K; △, $T = 318.15$ K, 2.52% Na_2SO_4

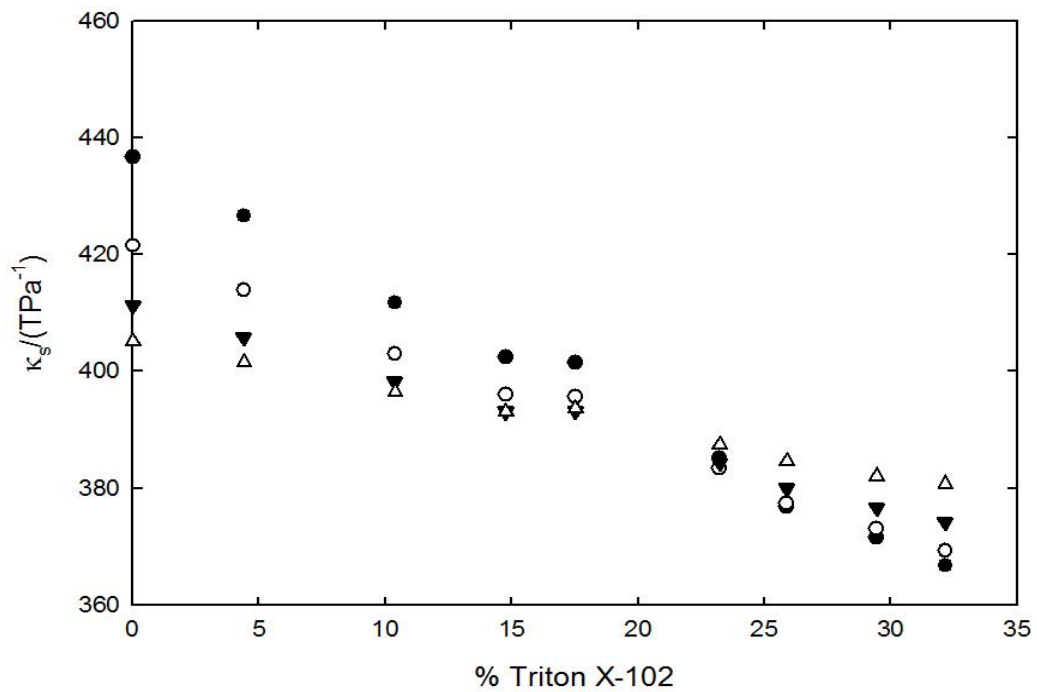


Figura G-200. Compresibilidad isoentrópica para el sistema ternario Triton X-102 (1) - Na_2SO_4 (2) – agua (3) a, ● $T=288.15$ K; ○, $T = 298.15$ K; ▼, $T = 308.15$ K; △, $T = 318.15$ K, 2.52% Na_2SO_4

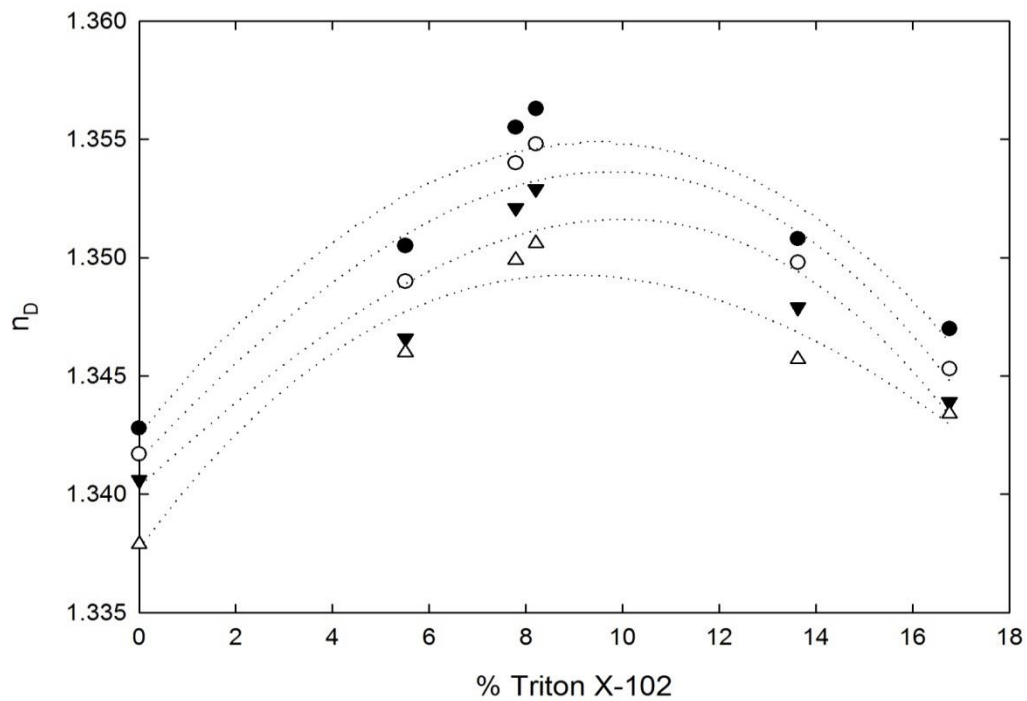


Figura G-201. Índice de refracción para el sistema ternario Triton X-102 (1) - Na_2SO_4 (2) - agua (3) a, ● $T=288.15\text{ K}$; ○, $T = 298.15\text{ K}$; ▼, $T = 308.15\text{ K}$; △, $T = 318.15\text{ K}$, 5.00% Na_2SO_4

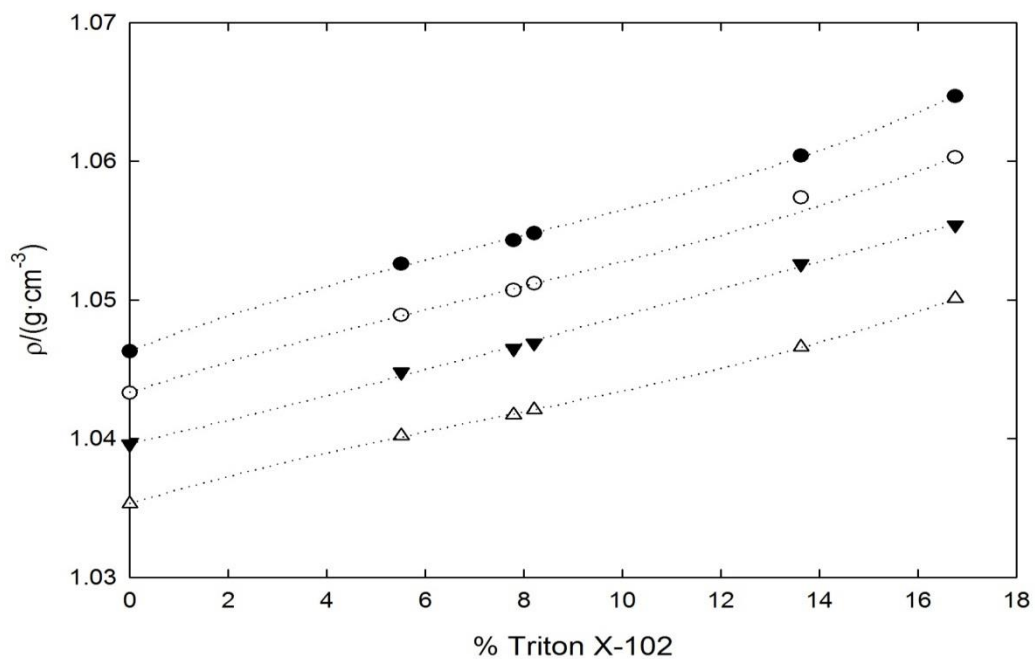


Figura G-202. Densidad para el sistema ternario Triton X-102 (1) - Na_2SO_4 (2) - agua (3) a, ● $T=288.15\text{ K}$; ○, $T = 298.15\text{ K}$; ▼, $T = 308.15\text{ K}$; △, $T = 318.15\text{ K}$, 5.00% Na_2SO_4

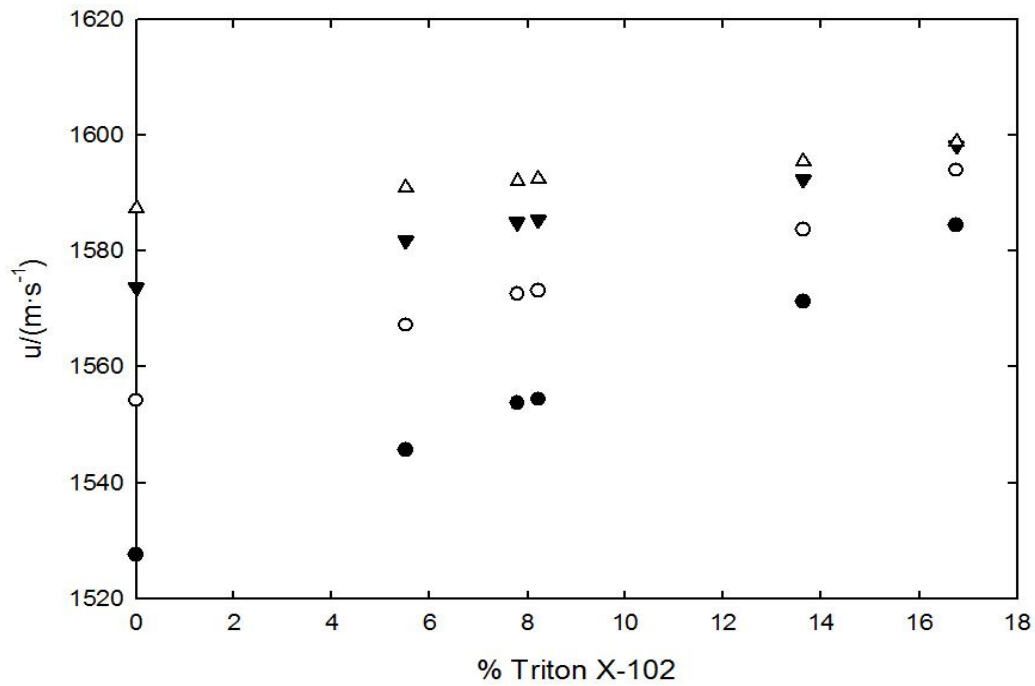


Figura G-203. Velocidad del sonido para el sistema ternario Triton X-102 (1) - Na_2SO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 5.00% Na_2SO_4

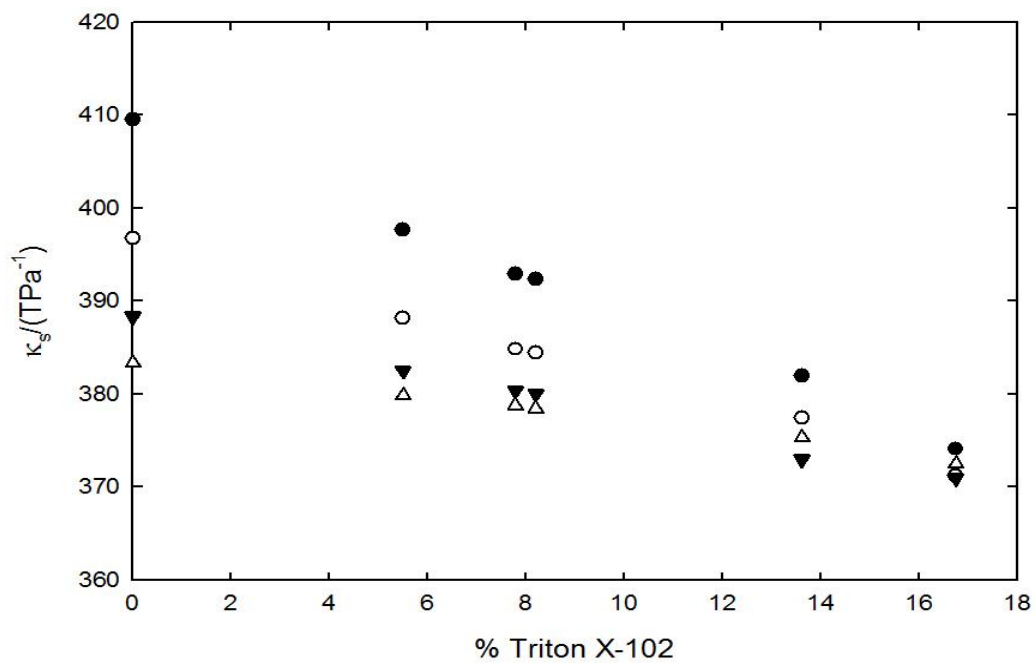


Figura G-204. Compresibilidad isoentrópica para el sistema ternario Triton X-102 (1) - Na_2SO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 5.00% Na_2SO_4

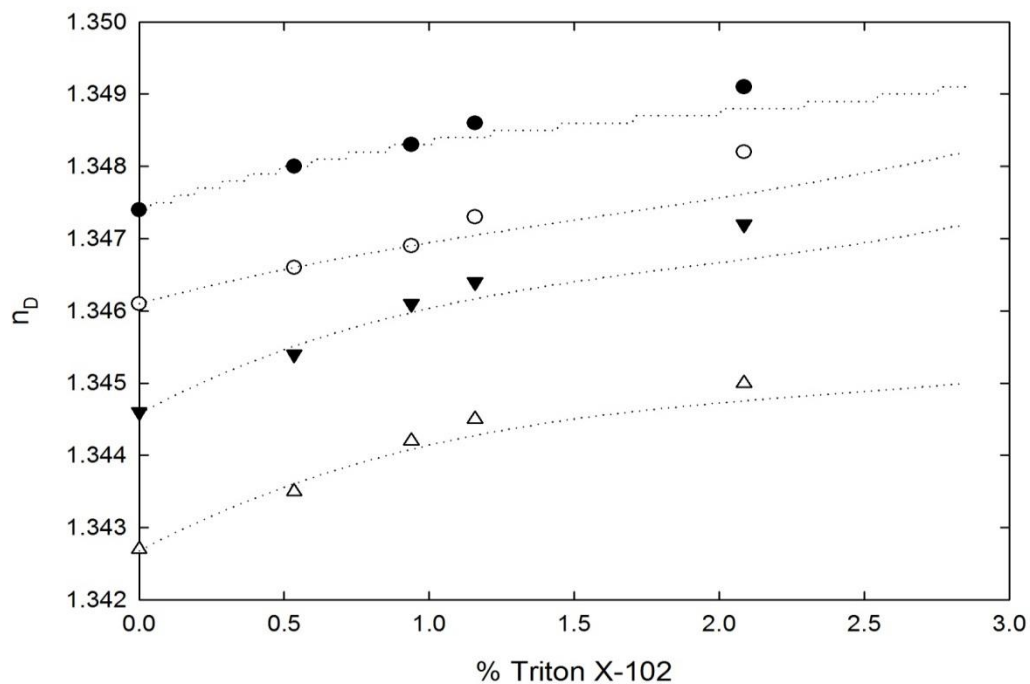


Figura G-205. Índice de refracción para el sistema ternario Triton X-102 (1) - Na_2SO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 9.12% Na_2SO_4

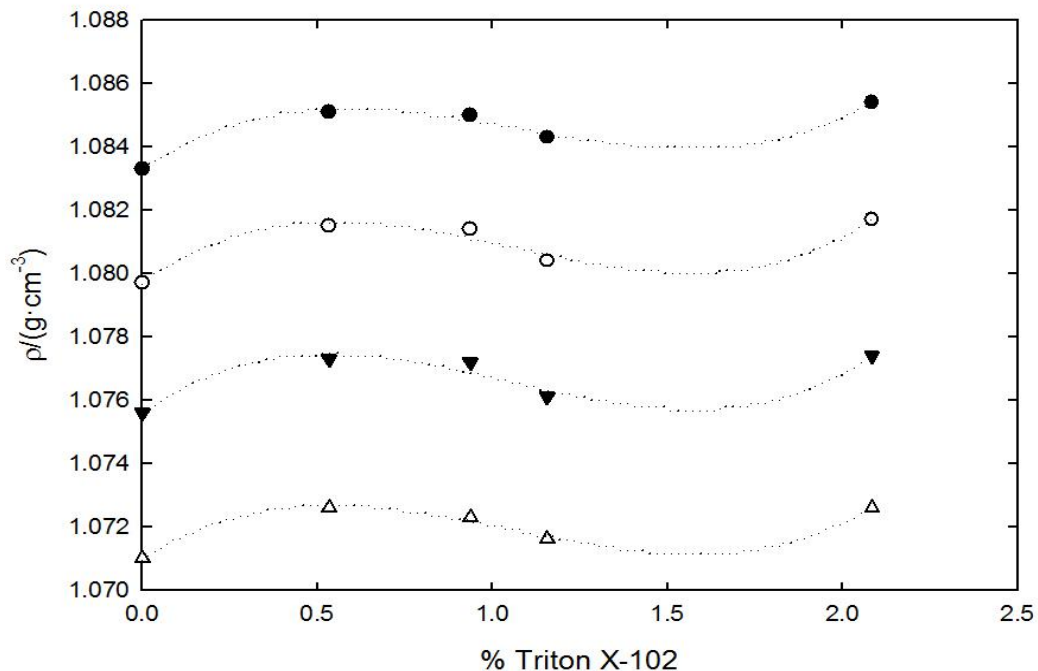


Figura G-206. Densidad para el sistema ternario Triton X-102 (1) - Na_2SO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 9.12% Na_2SO_4

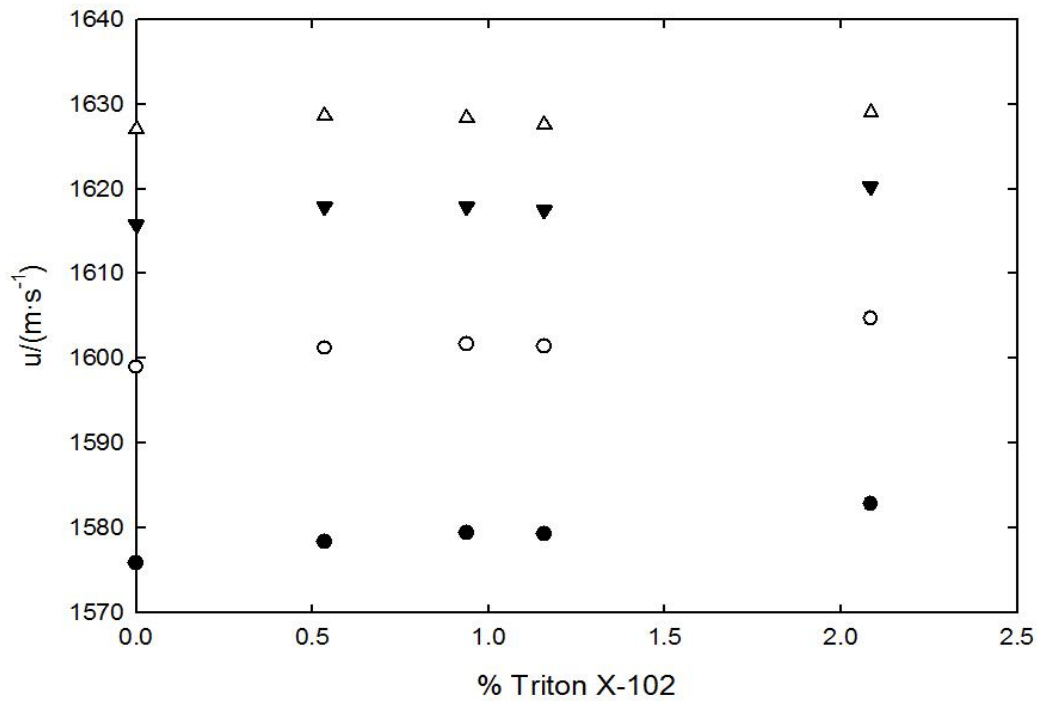


Figura G-207. Velocidad del sonido para el sistema ternario Triton X-102 (1) - Na_2SO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 9.12% Na_2SO_4

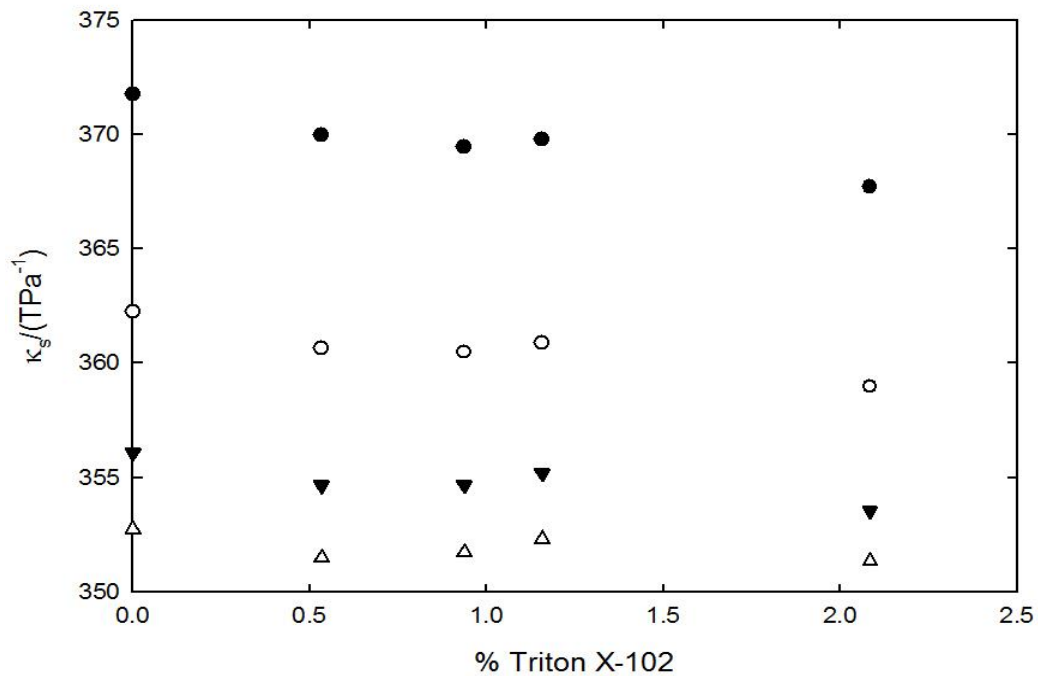


Figura G-208. Compresibilidad isoentrópica para el sistema ternario Triton X-102 (1) - Na_2SO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 9.12% Na_2SO_4

G.1.6.6. Triton X-102 – Na₂S₂O₃ – agua

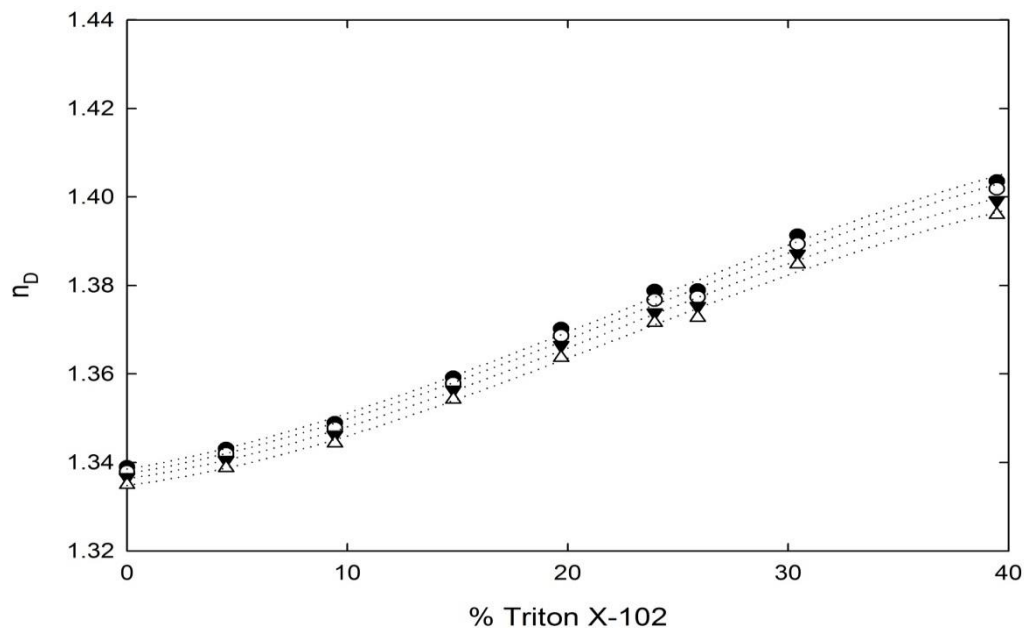


Figura G-209. Índice de refracción para el sistema ternario Triton X-102 (1) – Na₂S₂O₃ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 2.50% Na₂S₂O₃

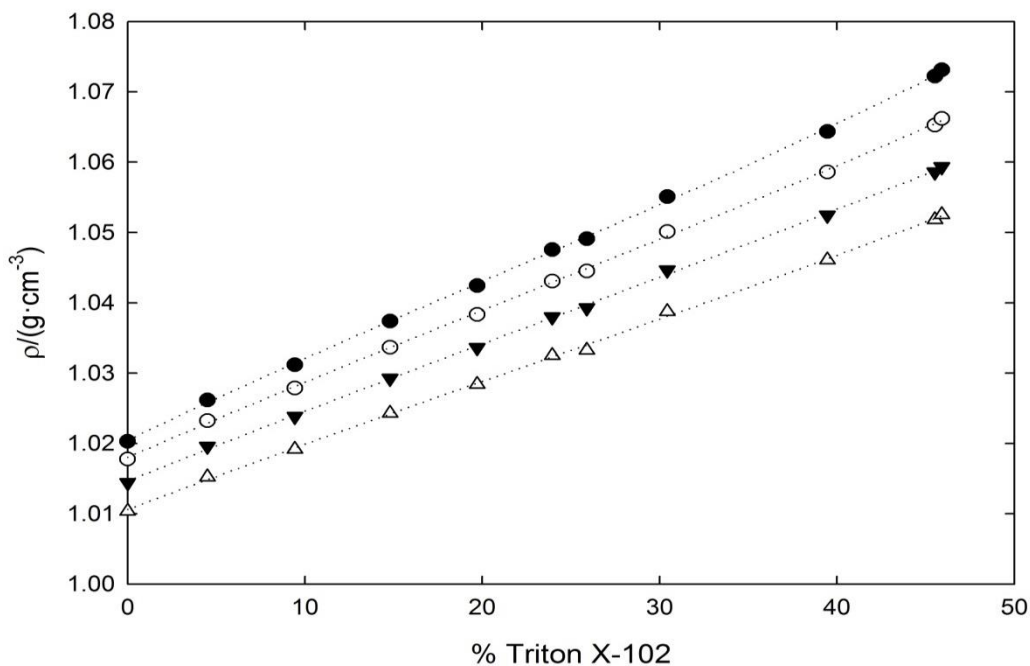


Figura G-210. Densidad para el sistema ternario Triton X-102 (1) - Na₂S₂O₃ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 2.50% Na₂S₂O₃

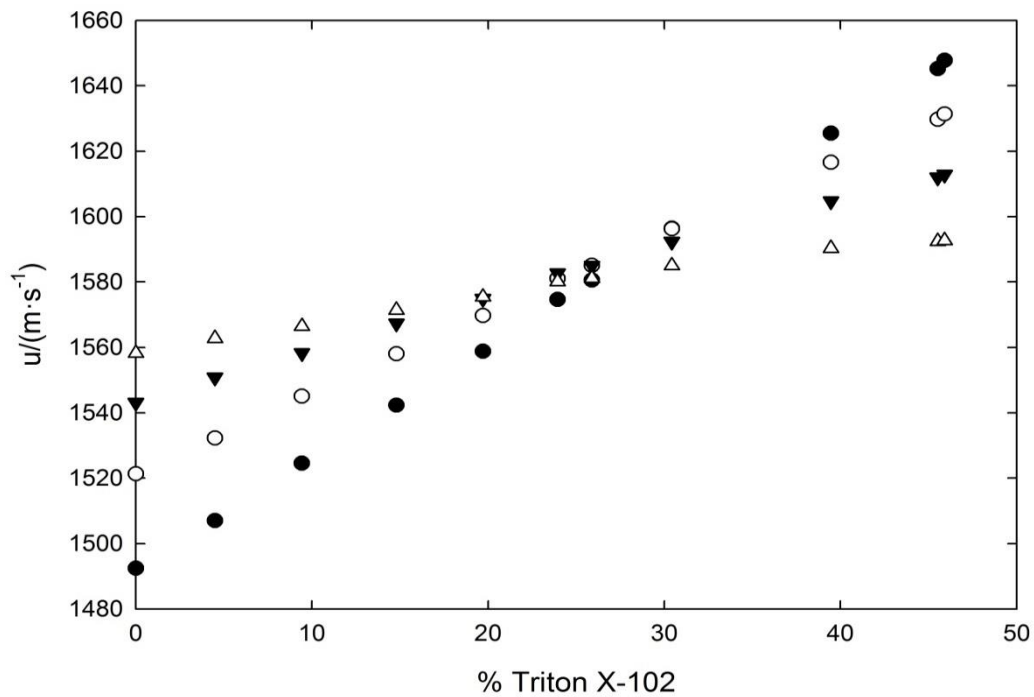


Figura G-211. Velocidad del sonido para el sistema ternario Triton X-102 (1) - $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, \bullet T=288.15 K; \circ , T = 298.15 K; \blacktriangledown , T = 308.15 K; Δ , T = 318.15 K, 2.50% $\text{Na}_2\text{S}_2\text{O}_3$

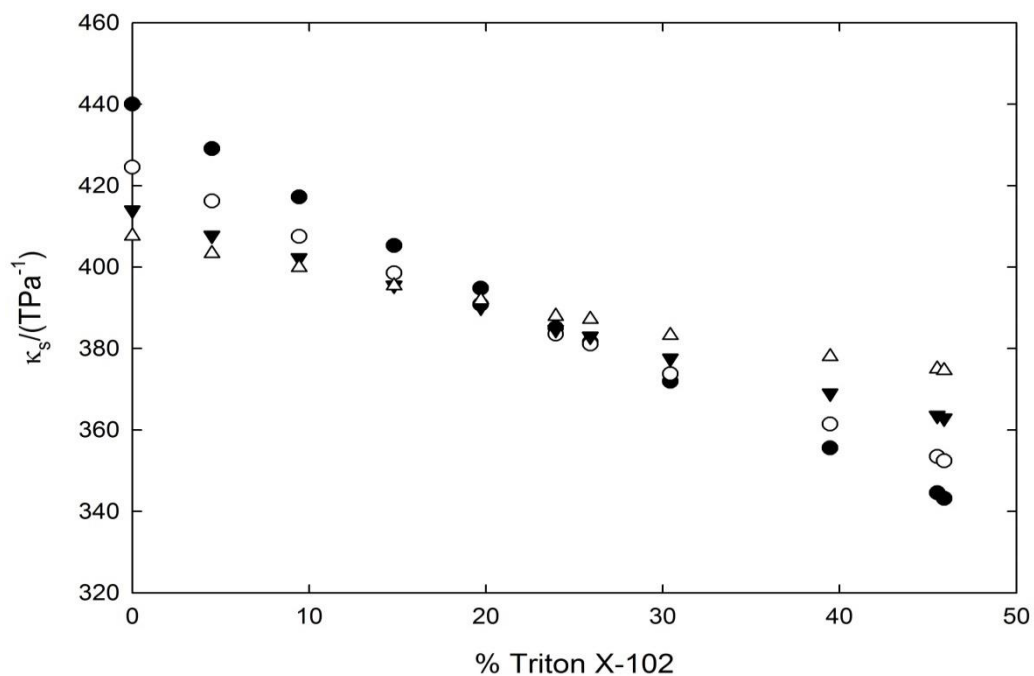


Figura G-212. Compresibilidad isoentrópica para el sistema ternario Triton X-102 (1) - $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, \bullet T=288.15 K; \circ , T = 298.15 K; \blacktriangledown , T = 308.15 K; Δ , T = 318.15 K, 2.50% $\text{Na}_2\text{S}_2\text{O}_3$

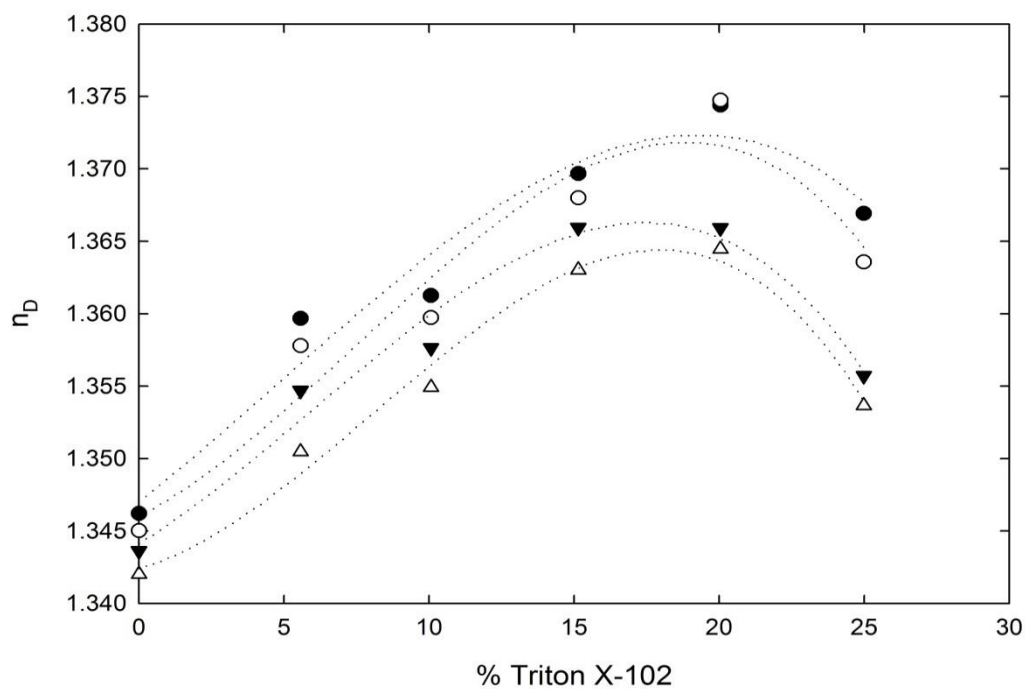


Figura G-213. Índice de refracción para el sistema ternario Triton X-102 (1) – $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, ● $T=288.15$ K; ○, $T = 298.15$ K; ▼, $T = 308.15$ K; △, $T = 318.15$ K, 5.00% $\text{Na}_2\text{S}_2\text{O}_3$

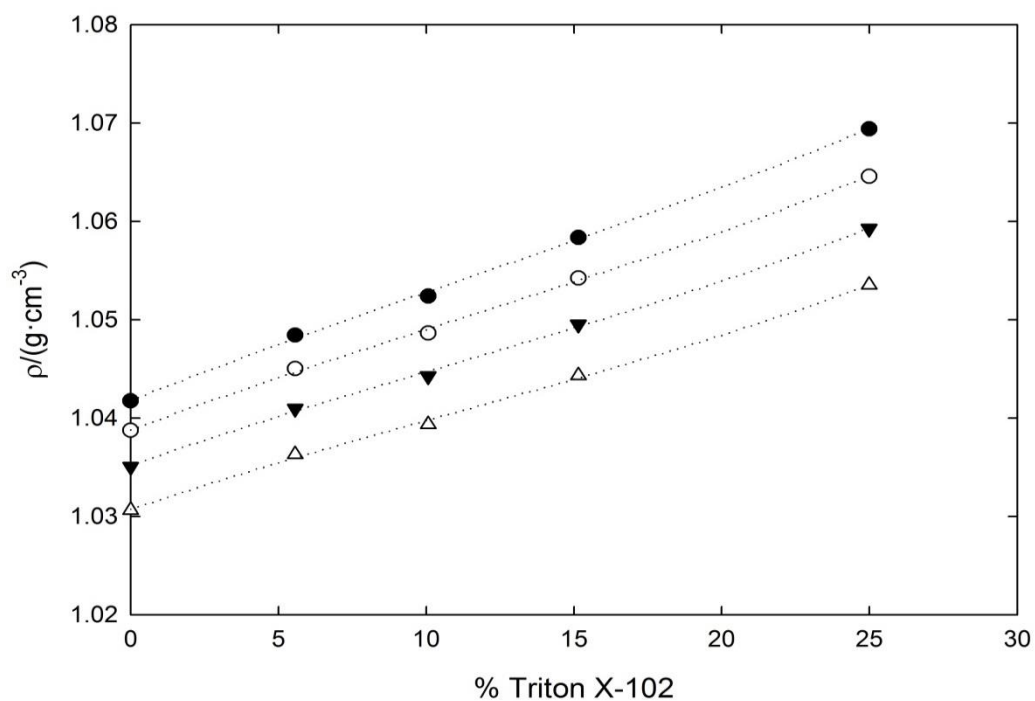


Figura G-214. Densidad para el sistema ternario Triton X-102 (1) - $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, ● $T=288.15$ K; ○, $T = 298.15$ K; ▼, $T = 308.15$ K; △, $T = 318.15$ K, 5.00% $\text{Na}_2\text{S}_2\text{O}_3$

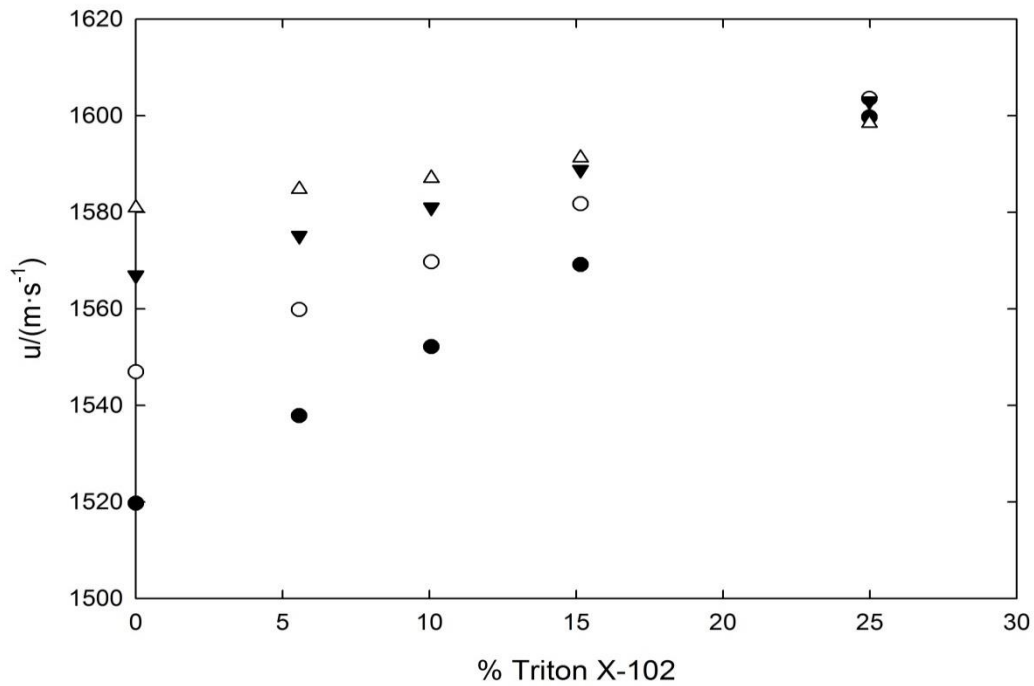


Figura G-215. Velocidad del sonido para el sistema ternario Triton X-102 (1) - $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, ● $T = 288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 5.00% $\text{Na}_2\text{S}_2\text{O}_3$

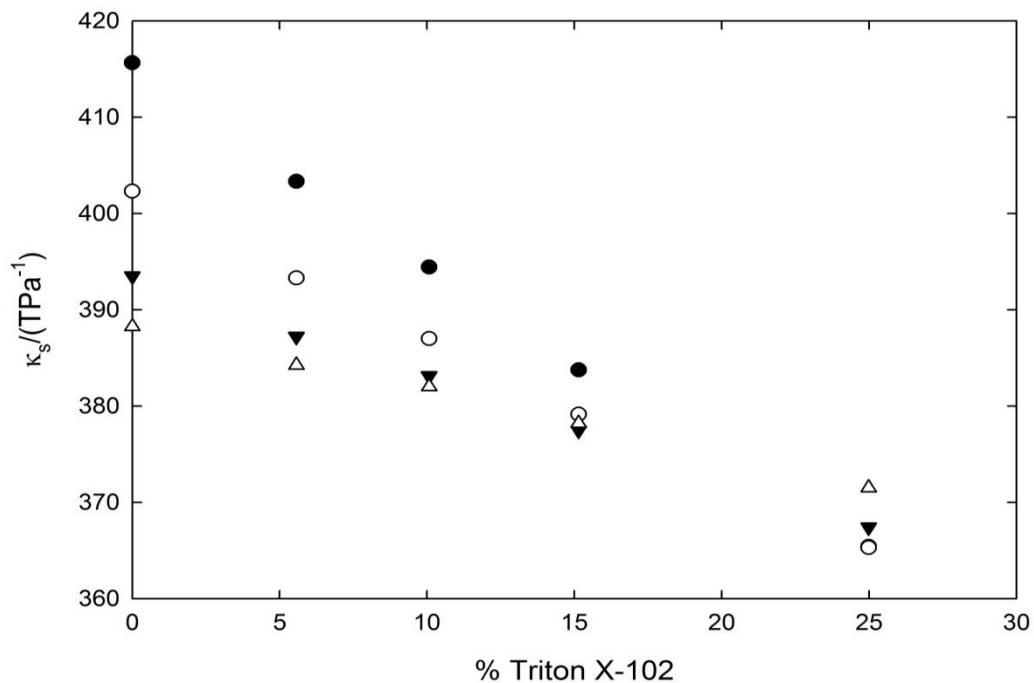


Figura G-216. Compresibilidad isoentrópica para el sistema ternario Triton X-102 (1) - $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, ● $T = 288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 5.00% $\text{Na}_2\text{S}_2\text{O}_3$

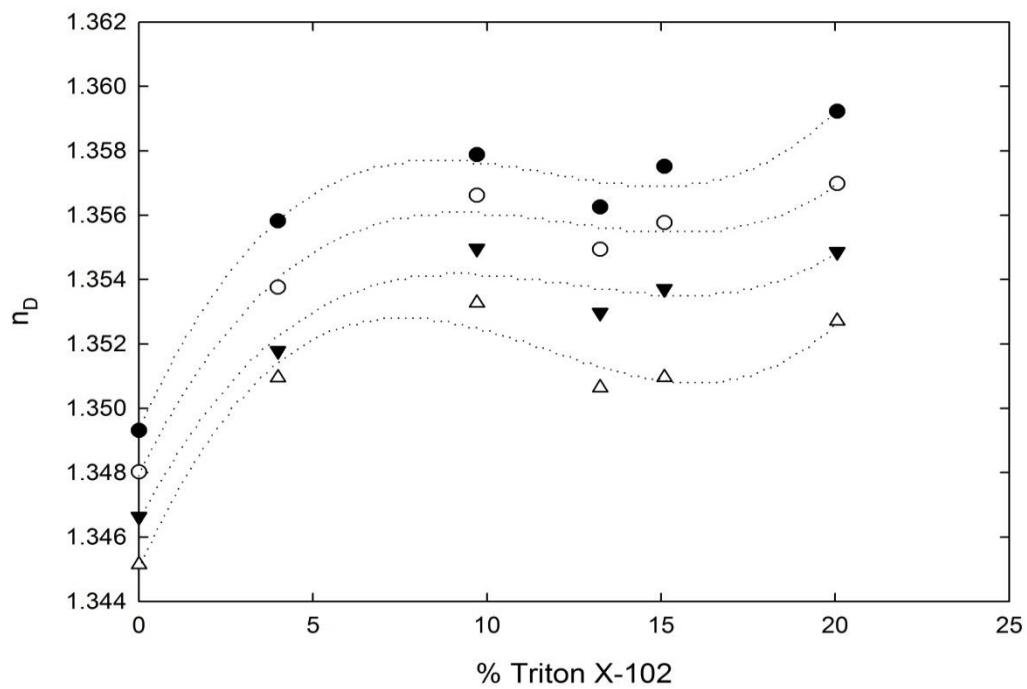


Figura G-217. Índice de refracción para el sistema ternario Triton X-102 (1) – Na₂S₂O₃ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 7.48% Na₂S₂O₃

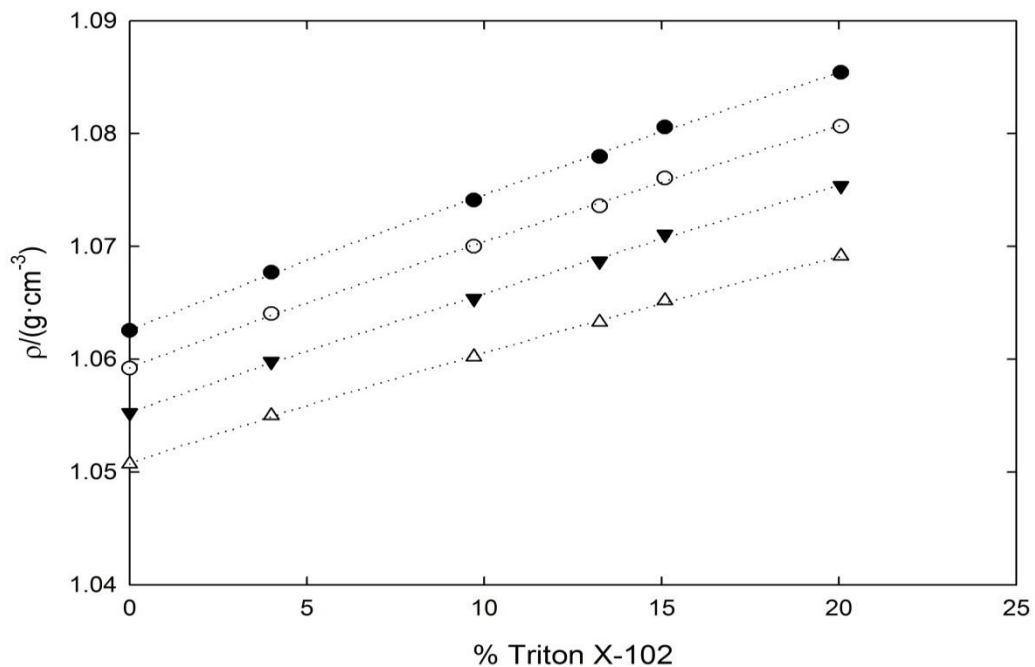


Figura G-218. Densidad para el sistema ternario Triton X-102 (1) - Na₂S₂O₃ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 7.48% Na₂S₂O₃

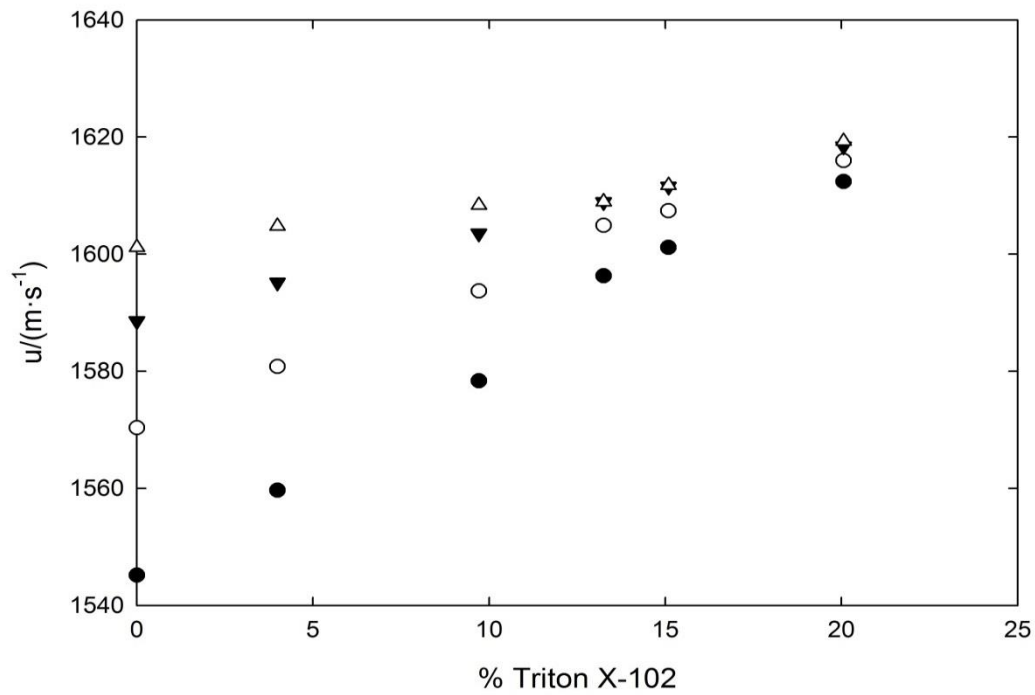


Figura G-219. Velocidad del sonido para el sistema ternario Triton X-102 (1) - $Na_2S_2O_3$ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 7.48% $Na_2S_2O_3$

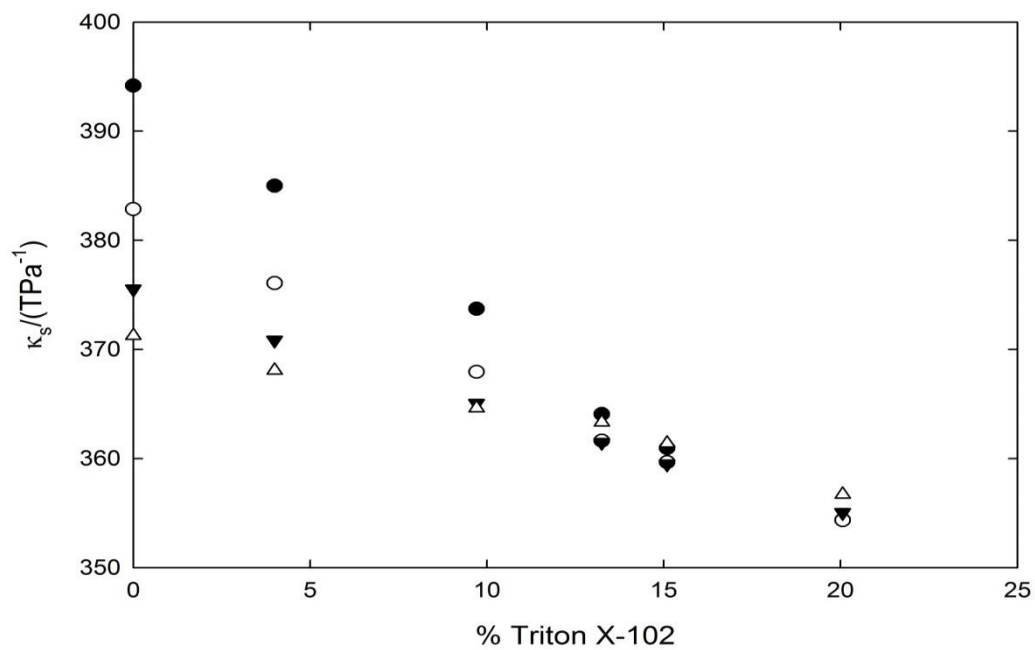


Figura G-220. Compresibilidad isoentrópica para el sistema ternario Triton X-102 (1) - $Na_2S_2O_3$ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 7.48% $Na_2S_2O_3$

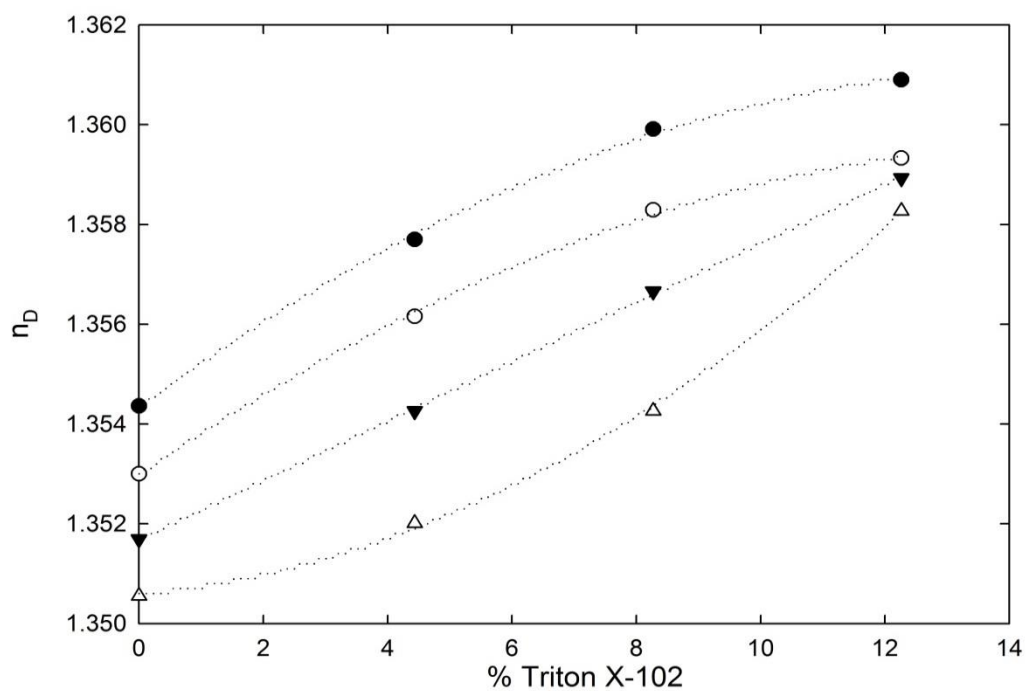


Figura G-221. Índice de refracción para el sistema ternario Triton X-102 (1) – Na₂S₂O₃ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 10.03% Na₂S₂O₃

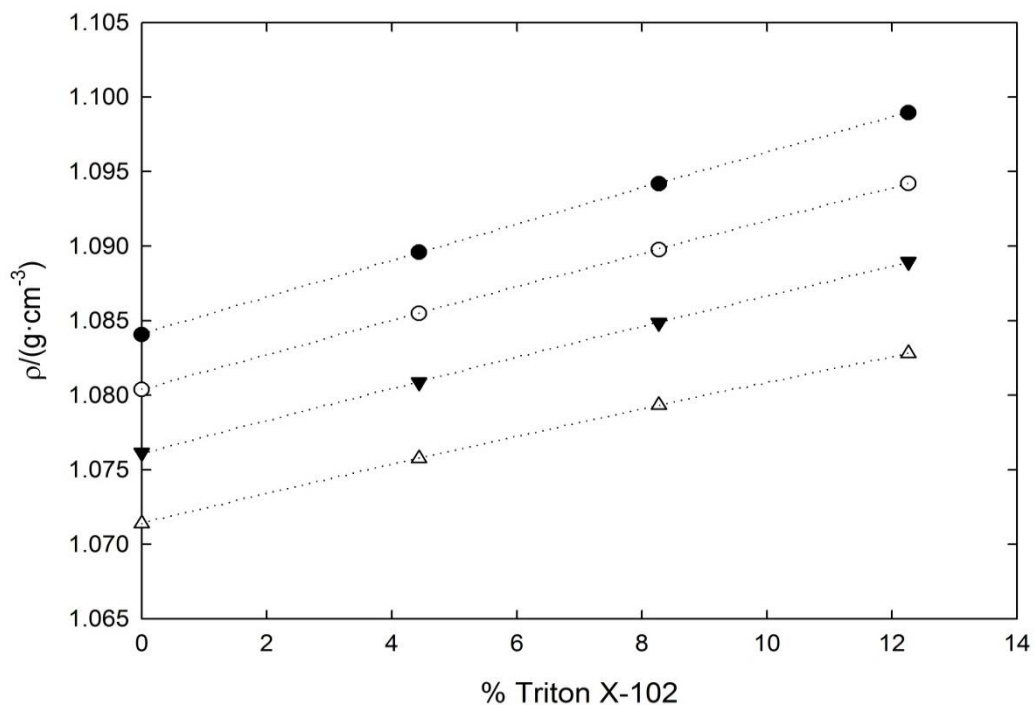


Figura G-222. Densidad para el sistema ternario Triton X-102 (1) - Na₂S₂O₃ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 10.03% Na₂S₂O₃

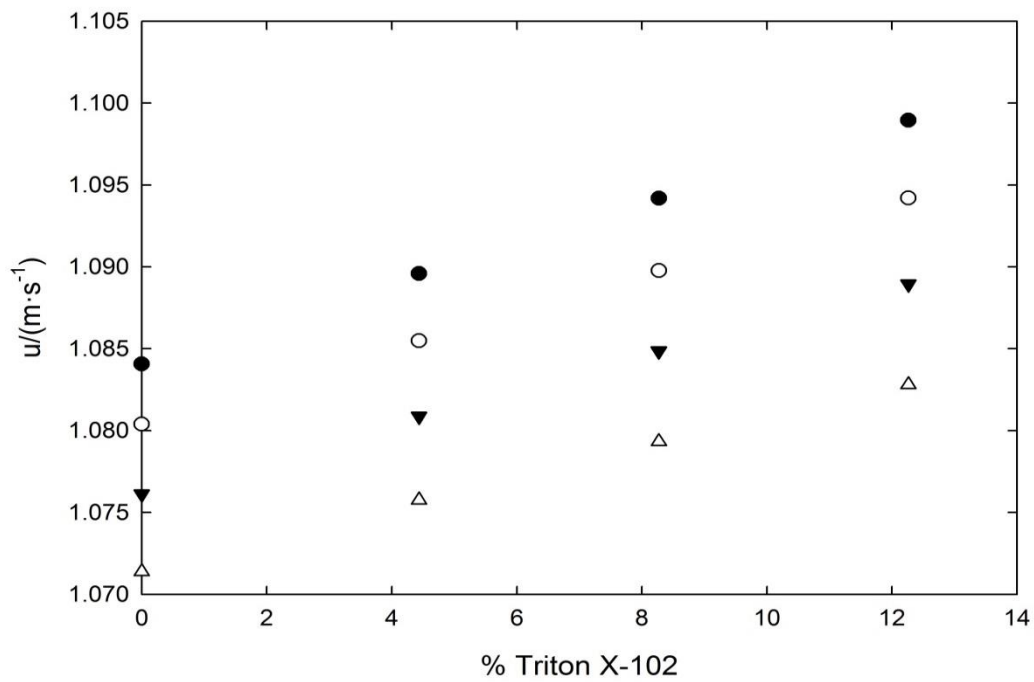


Figura G-223. Velocidad del sonido para el sistema ternario Triton X-102 (1) - $Na_2S_2O_3$ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 10.03% $Na_2S_2O_3$

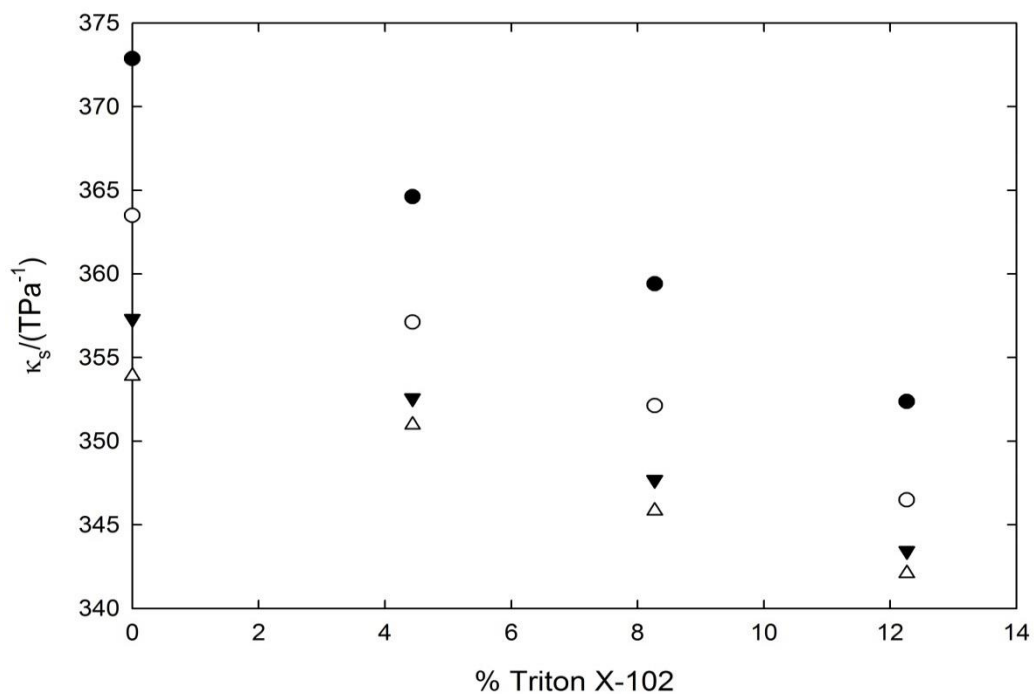


Figura G-224. Compresibilidad isoentrópica para el sistema ternario Triton X-102 (1) - $Na_2S_2O_3$ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 10.03% $Na_2S_2O_3$

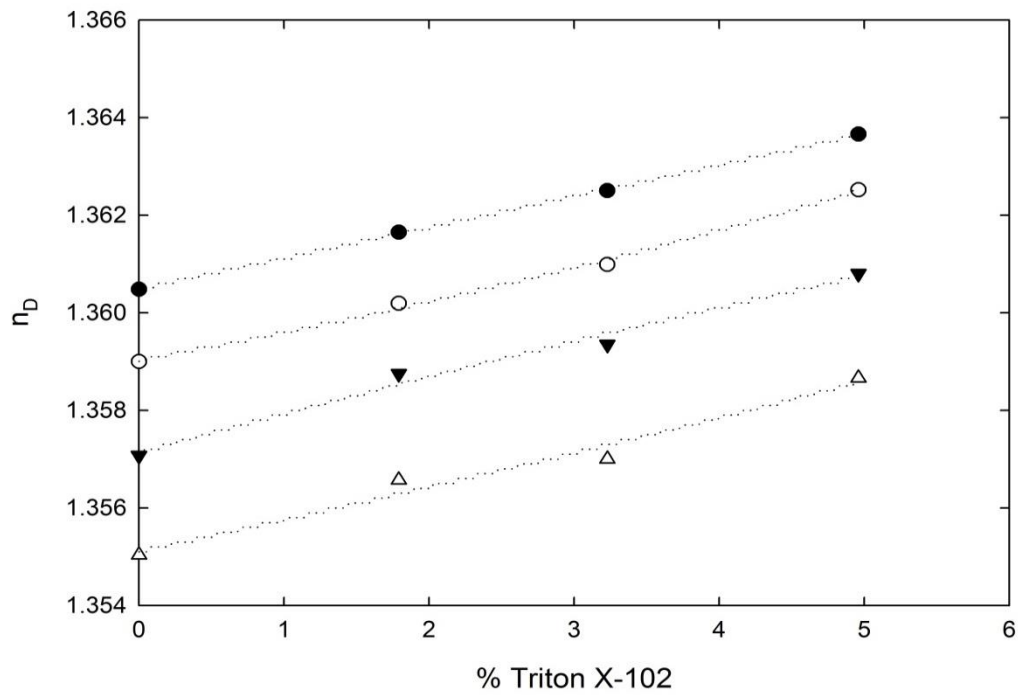


Figura G-225. Índice de refracción para el sistema ternario Triton X-102 (1) – Na₂S₂O₃ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 12.55% Na₂S₂O₃

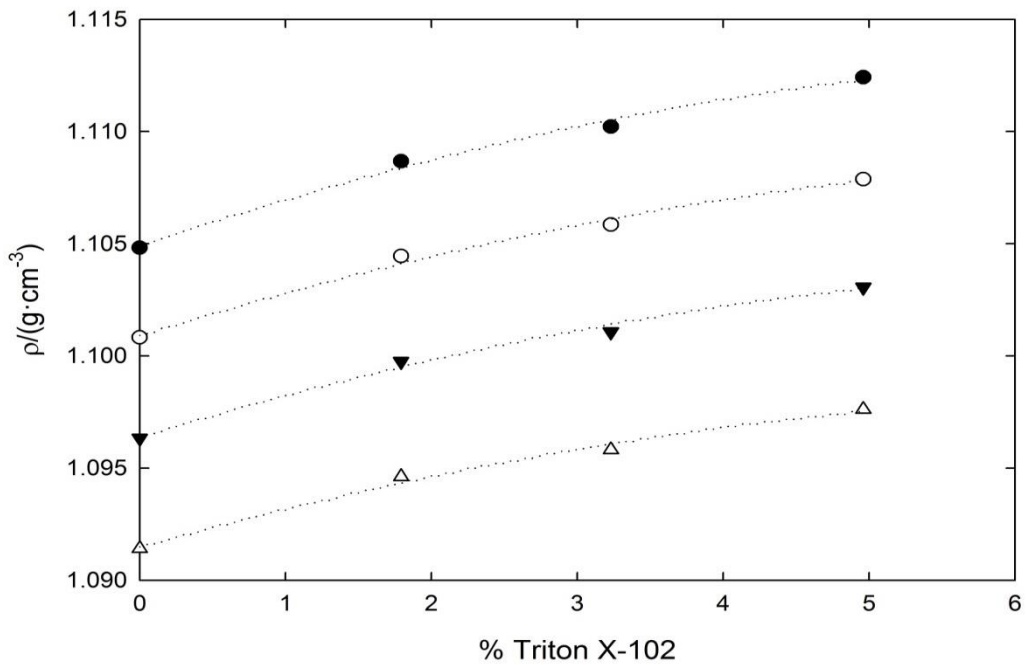


Figura G-226. Densidad para el sistema ternario Triton X-102 (1) - Na₂S₂O₃ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 12.55% Na₂S₂O₃

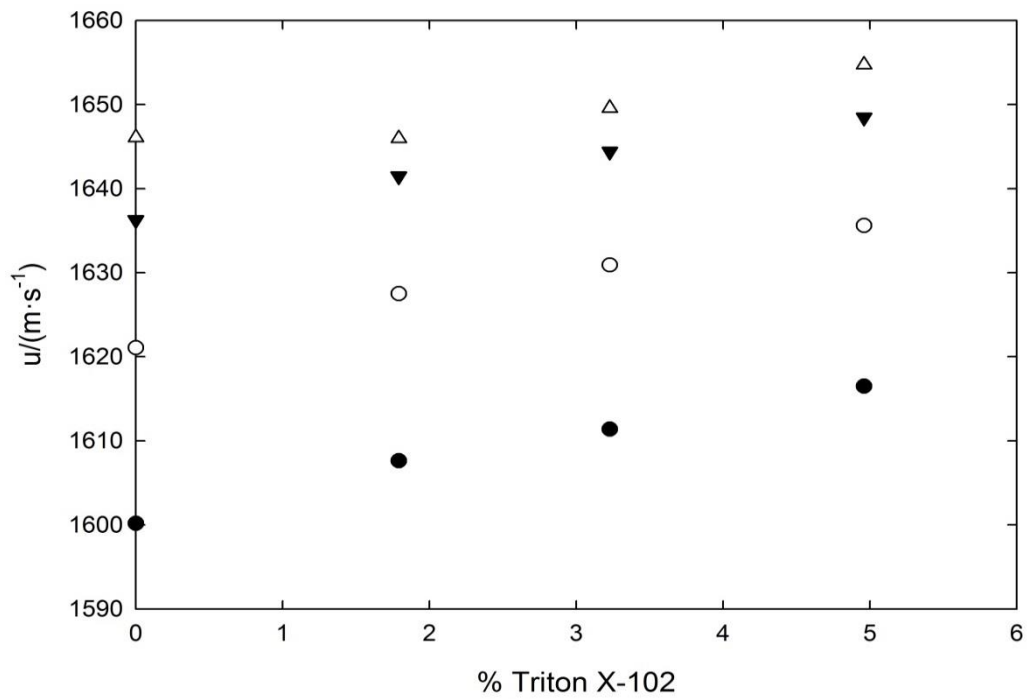


Figura G-227. Velocidad del sonido para el sistema ternario Triton X-102 (1) - $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 12.55% $\text{Na}_2\text{S}_2\text{O}_3$

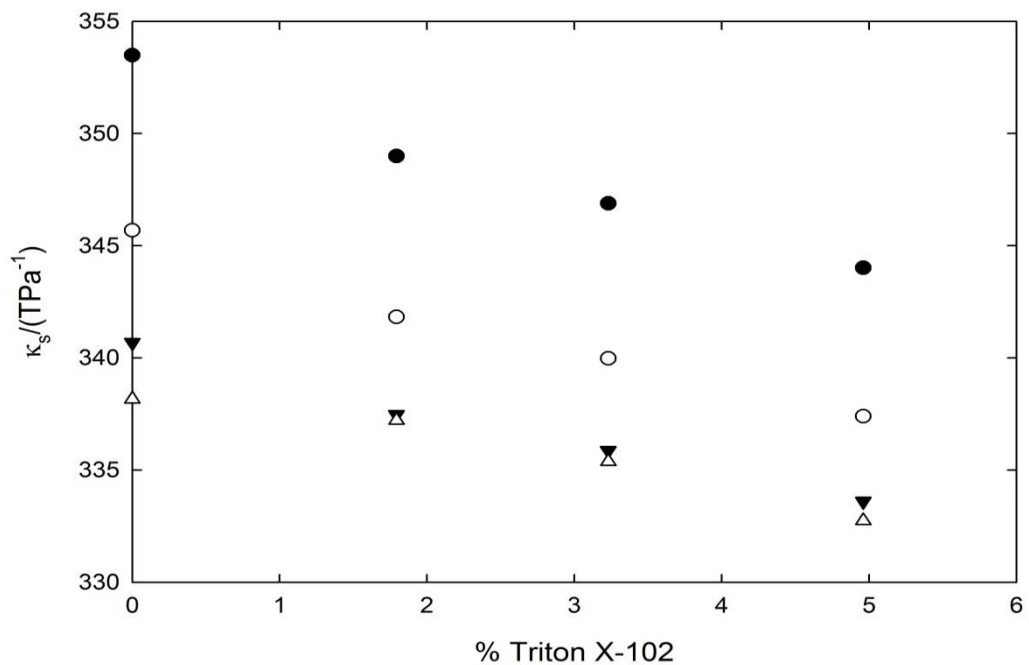


Figura G-228. Compresibilidad isoentrópica para el sistema ternario Triton X-102 (1) - $\text{Na}_2\text{S}_2\text{O}_3$ (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 12.55% $\text{Na}_2\text{S}_2\text{O}_3$

G.1.6.7. Triton X-102 – K₂HPO₄ – agua

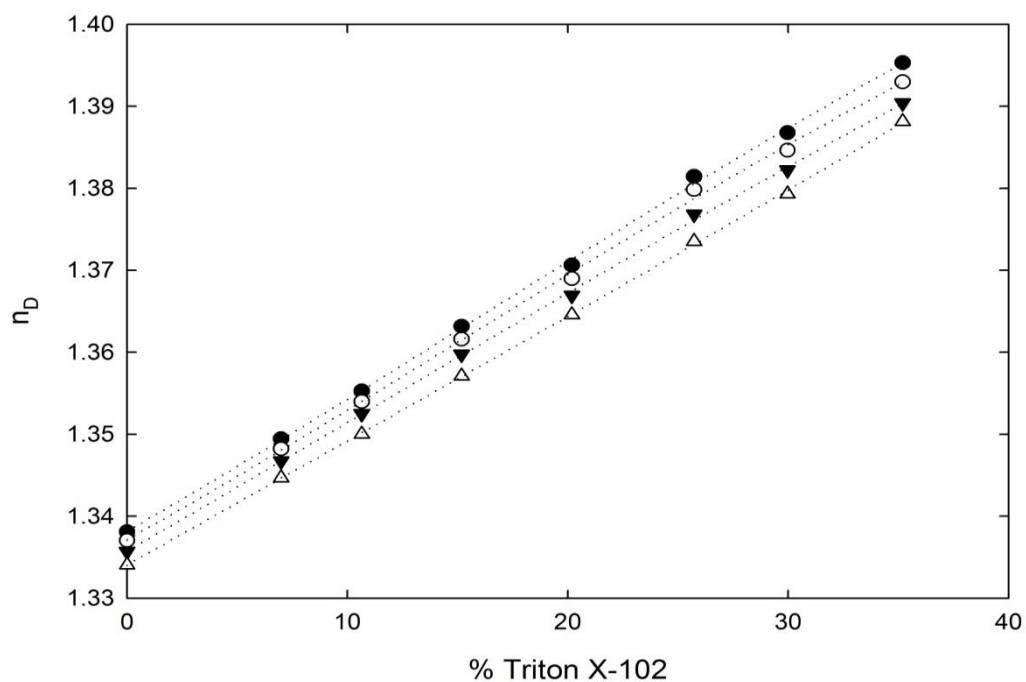


Figura G-229. Índice de refracción para el sistema ternario Triton X-102 (1) - K₂HPO₄ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 2.54% K₂HPO₄

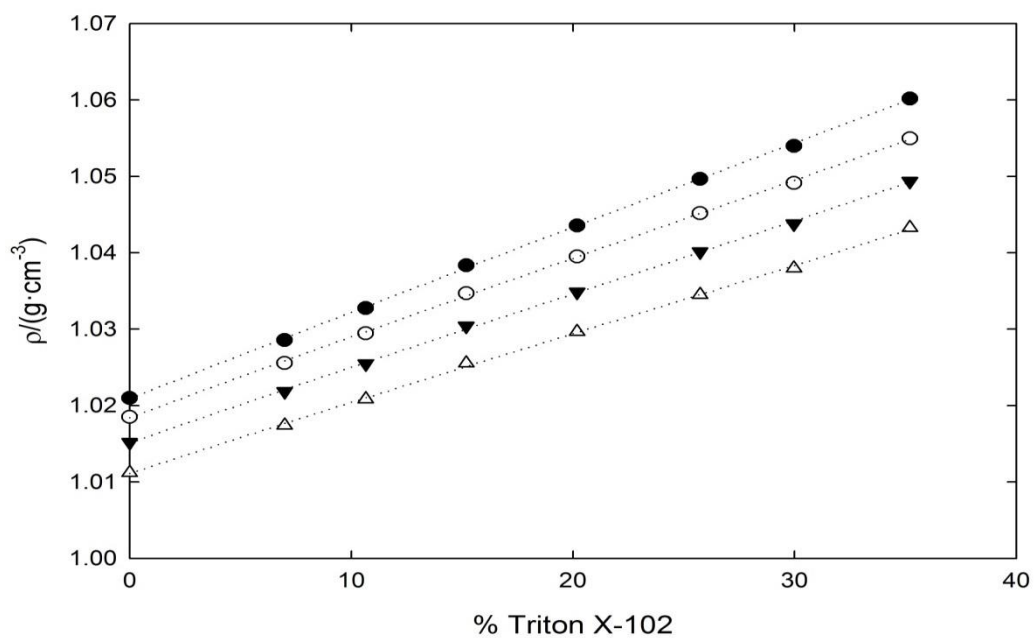


Figura G-230. Densidad para el sistema ternario Triton X-102 (1) - K₂HPO₄ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 2.54% K₂HPO₄

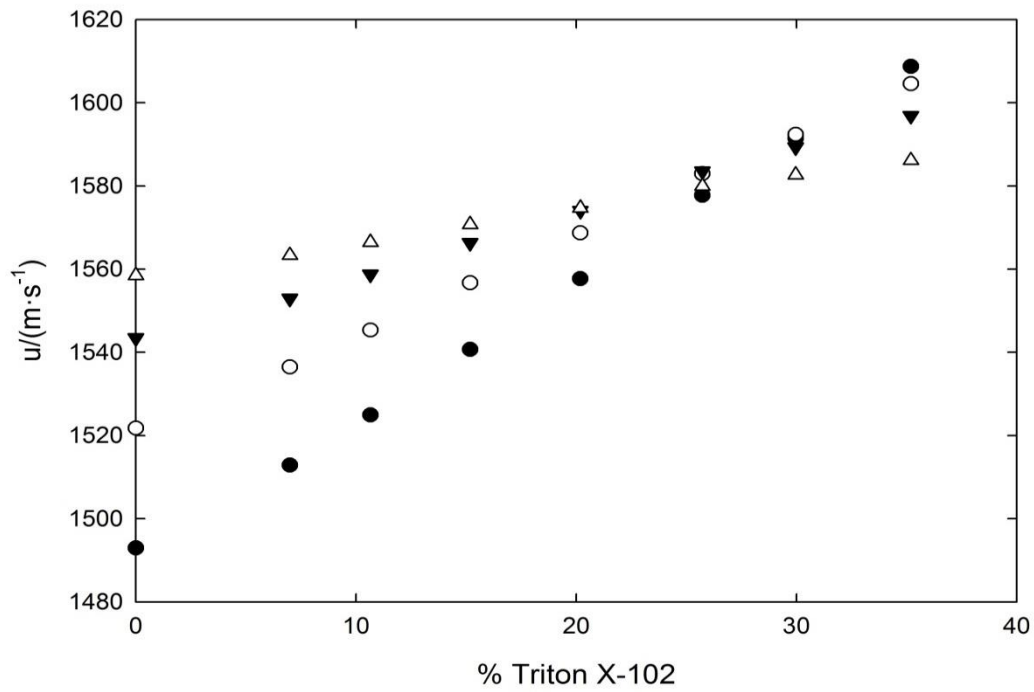


Figura G-231. Velocidad del sonido para el sistema ternario Triton X-102 (1) - K_2HPO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 2.54% K_2HPO_4

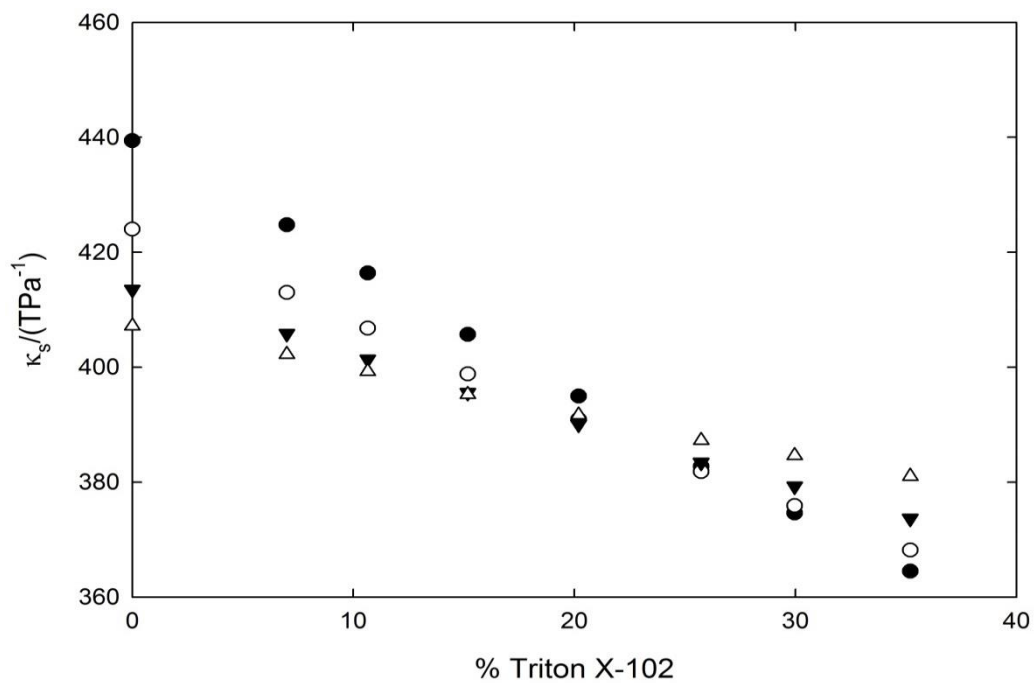


Figura G-232. Compresibilidad isoentrópica para el sistema ternario Triton X-102 (1) - K_2HPO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 2.54% K_2HPO_4

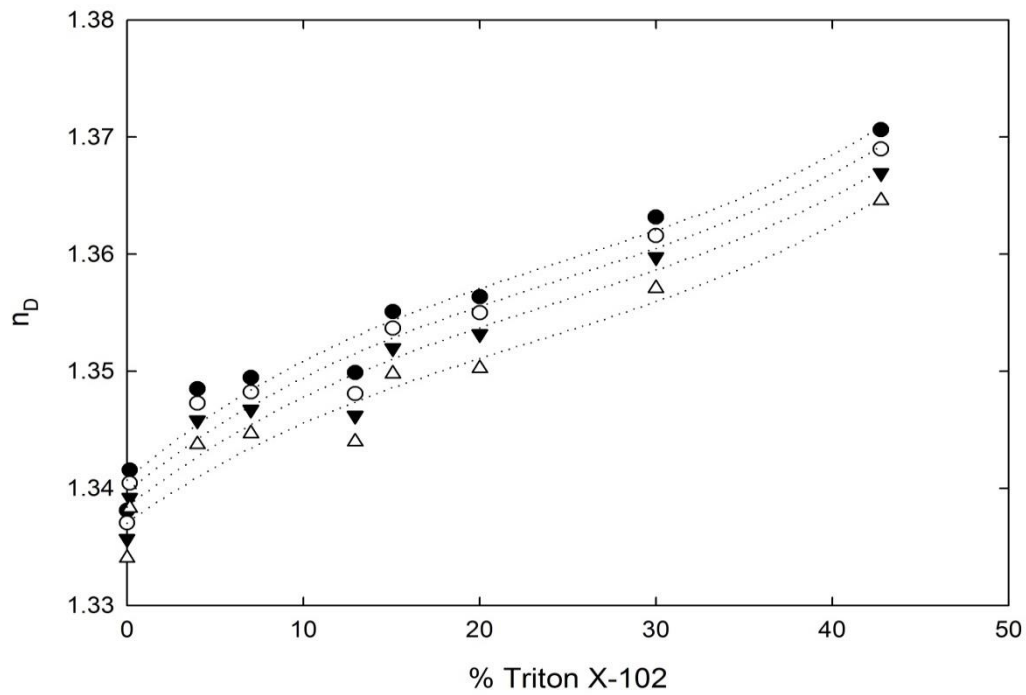


Figura G-233. Índice de refracción para el sistema ternario Triton X-102 (1) - K_2HPO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 5.08% K_2HPO_4

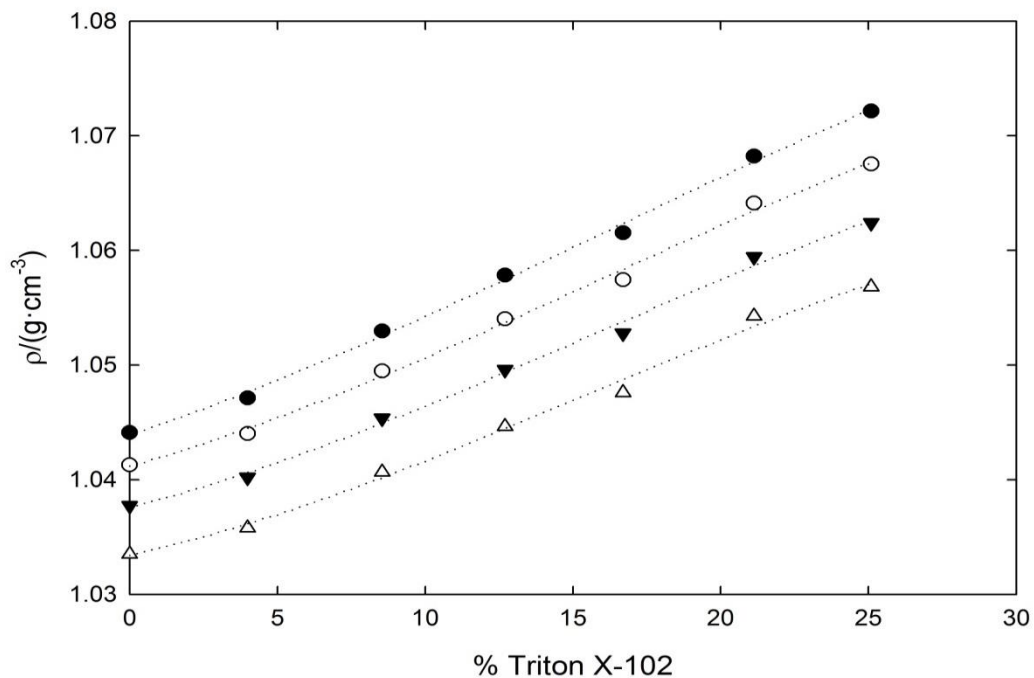


Figura G-234. Densidad para el sistema ternario Triton X-102 (1) - K_2HPO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 5.08% K_2HPO_4

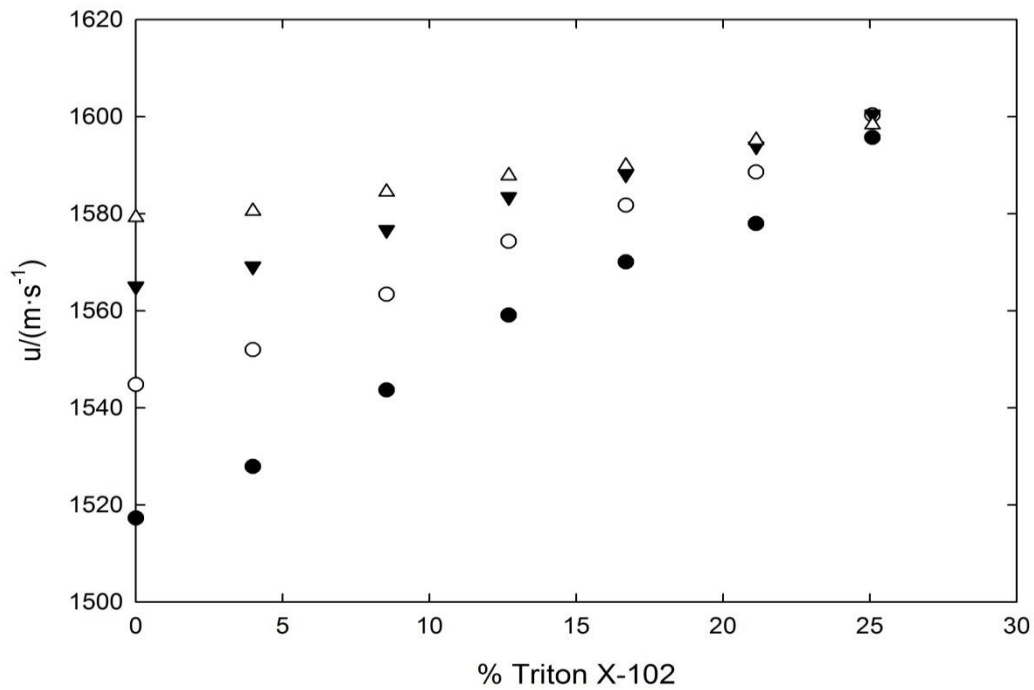


Figura G-235. Velocidad del sonido para el sistema ternario Triton X-102 (1) - K_2HPO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 5.08% K_2HPO_4

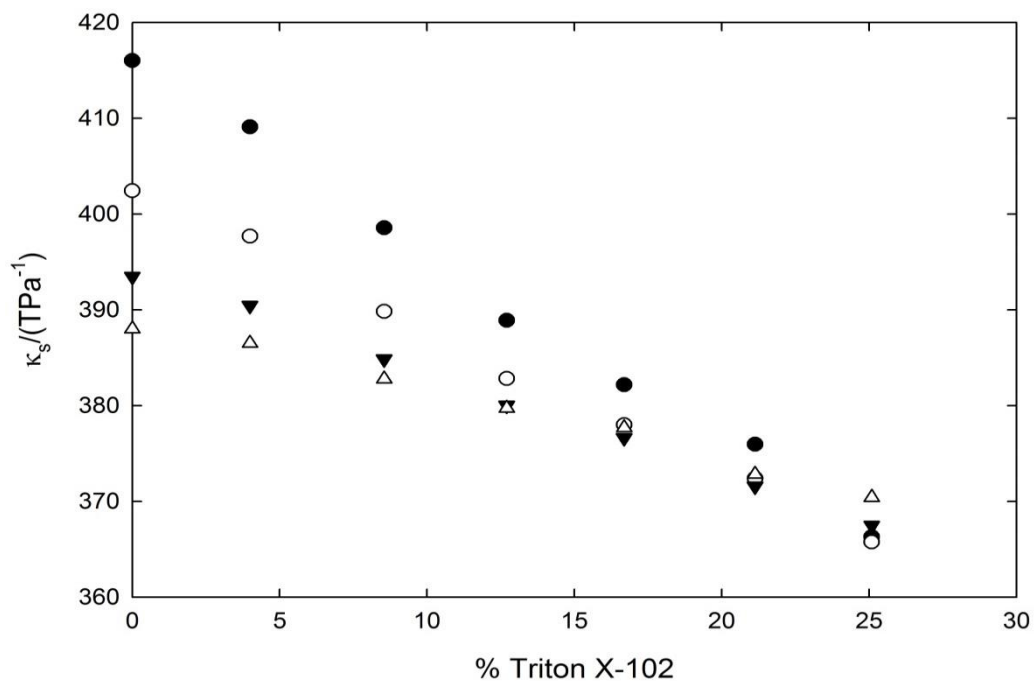


Figura G-236. Compresibilidad isoentrópica para el sistema ternario Triton X-102 (1) - K_2HPO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 5.08% K_2HPO_4

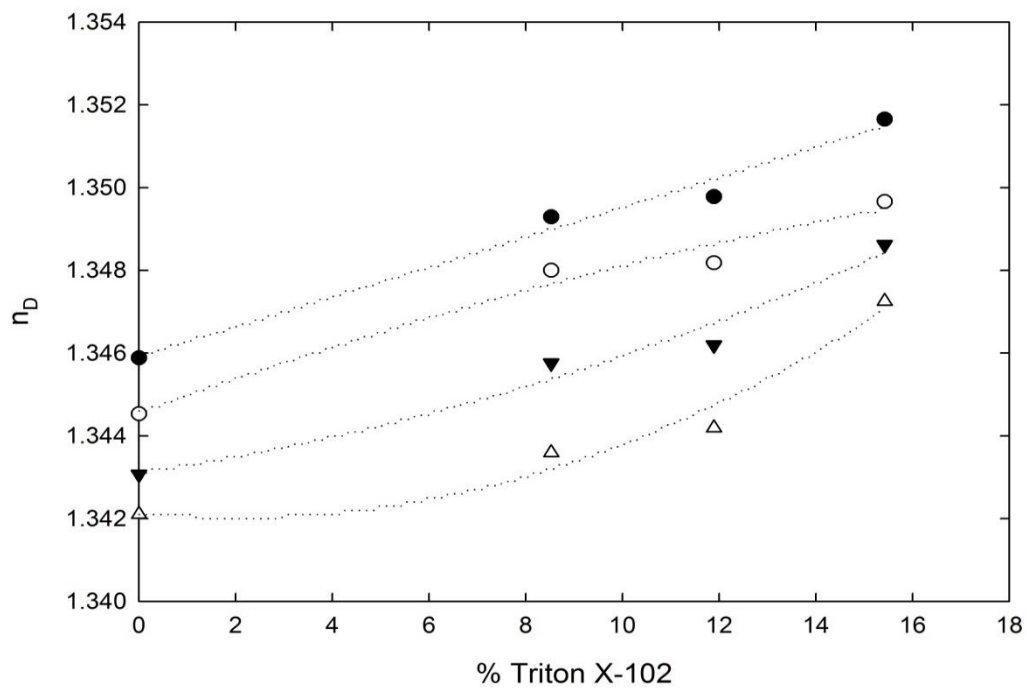


Figura G-237. Índice de refracción para el sistema ternario Triton X-102 (1) - K_2HPO_4 (2) – agua (3) a, ● $T=288.15\text{ K}$; ○, $T = 298.15\text{ K}$; ▼, $T = 308.15\text{ K}$; △, $T = 318.15\text{ K}$, 7.48% K_2HPO_4

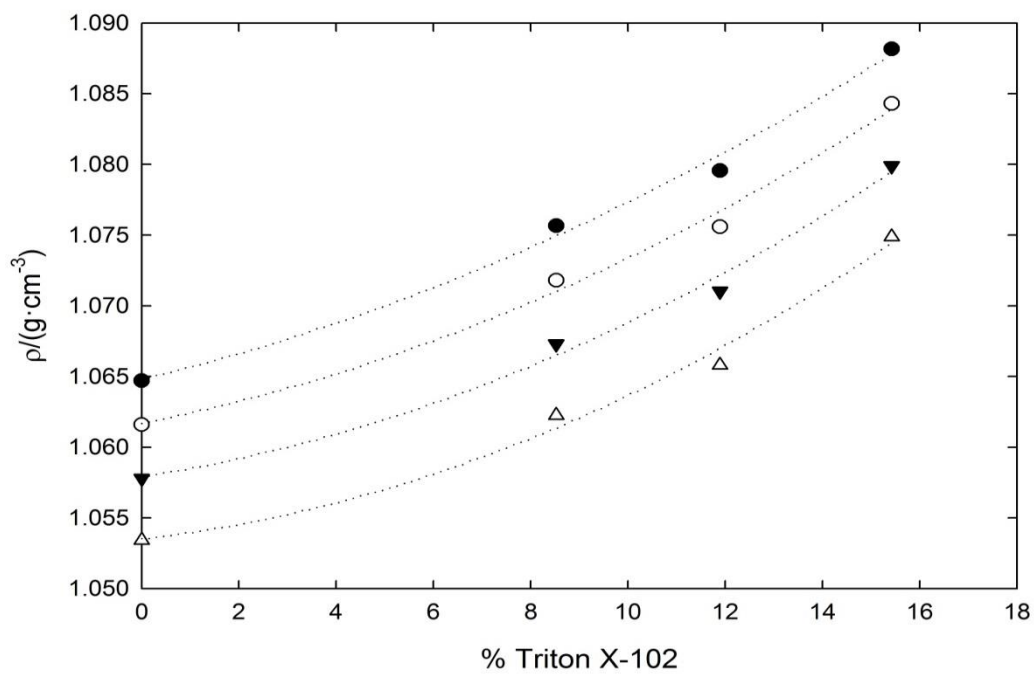


Figura G-238. Densidad para el sistema ternario Triton X-102 (1) - K_2HPO_4 (2) – agua (3) a, ● $T=288.15\text{ K}$; ○, $T = 298.15\text{ K}$; ▼, $T = 308.15\text{ K}$; △, $T = 318.15\text{ K}$, 7.48% K_2HPO_4

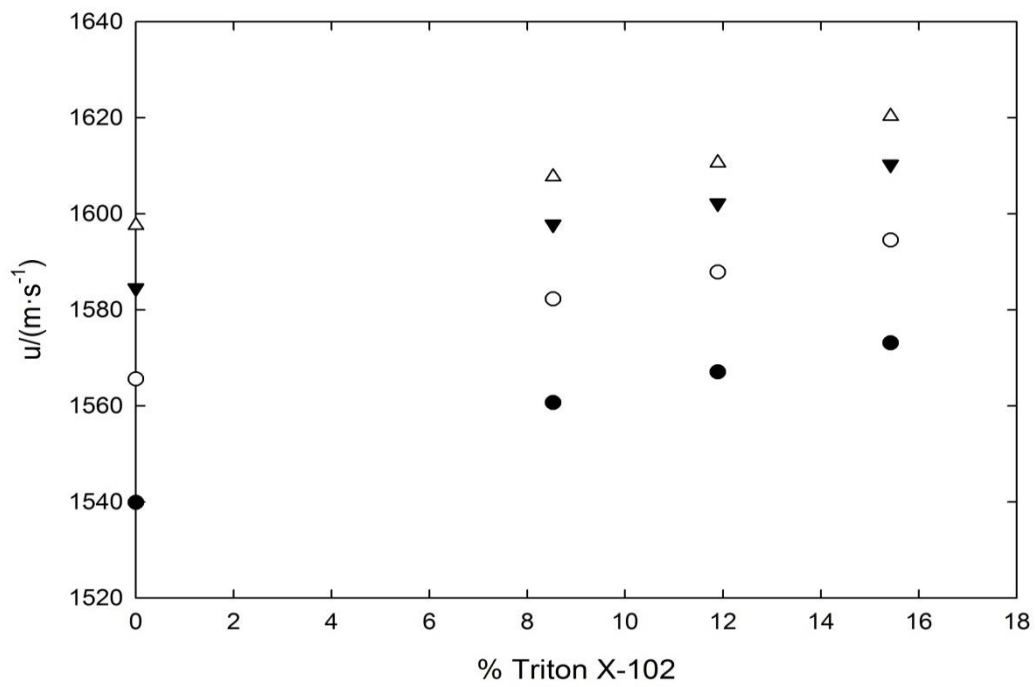


Figura G-239. Velocidad del sonido para el sistema ternario Triton X-102 (1) - K_2HPO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 7.48% K_2HPO_4

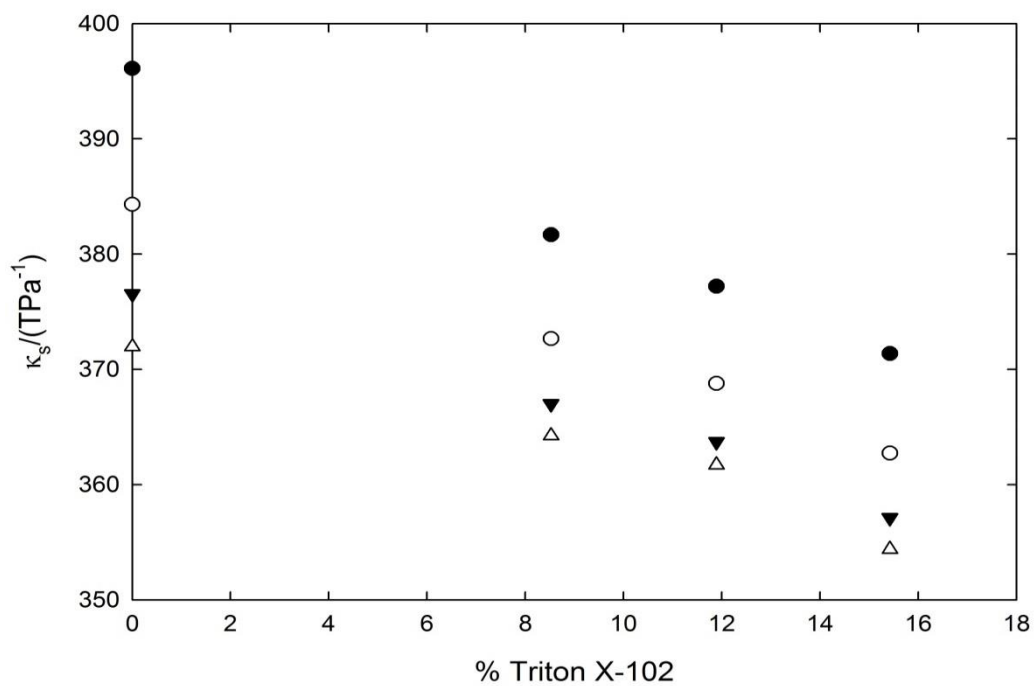


Figura G-240. Compresibilidad isoentrópica para el sistema ternario Triton X-102 (1) - K_2HPO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 7.48% K_2HPO_4

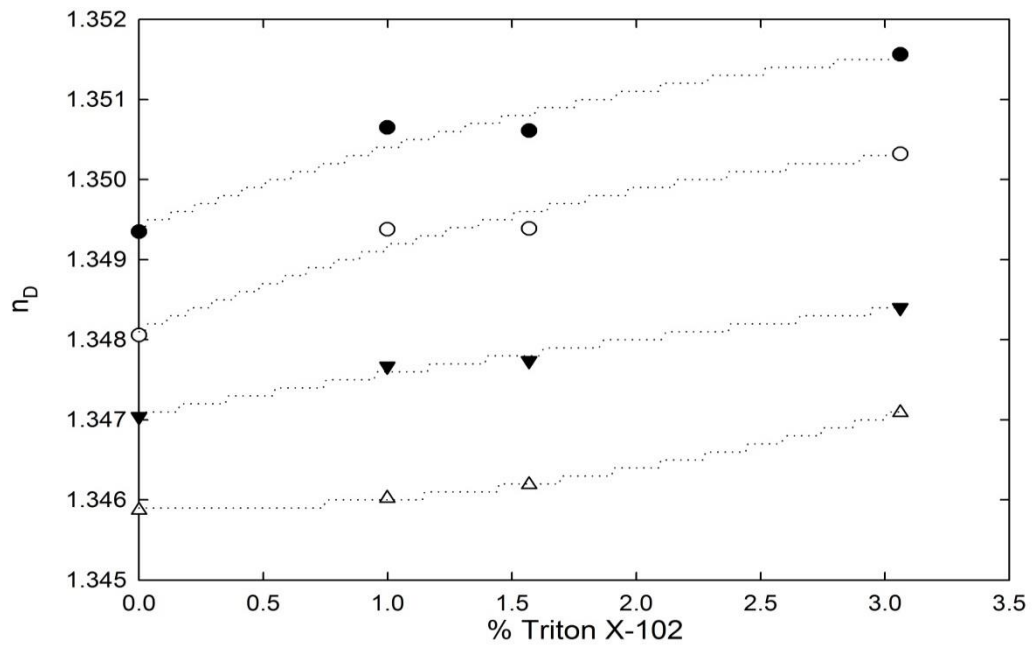


Figura G-241. Índice de refracción para el sistema ternario Triton X-102 (1) - K_2HPO_4 (2) - agua (3) a, \bullet T=288.15 K; \circ , T = 298.15 K; \blacktriangledown , T = 308.15 K; \triangle , T = 318.15 K, 10.03% K_2HPO_4

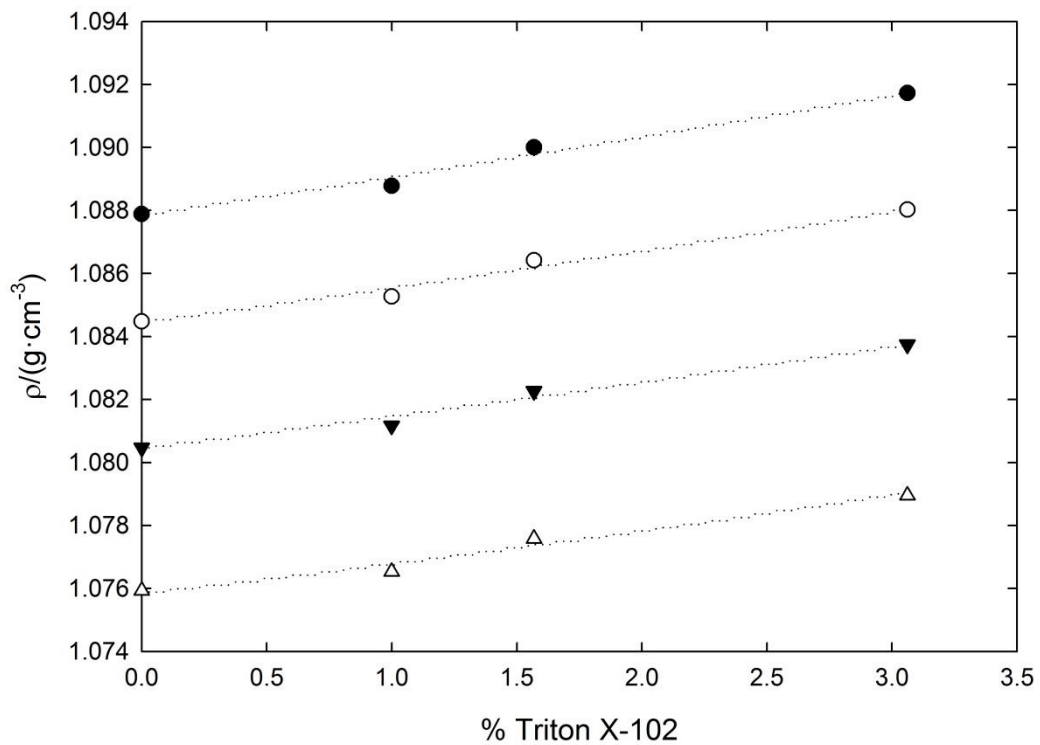


Figura G-242. Densidad para el sistema ternario Triton X-102 (1) - K_2HPO_4 (2) - agua (3) a, \bullet T=288.15 K; \circ , T = 298.15 K; \blacktriangledown , T = 308.15 K; \triangle , T = 318.15 K, 10.03% K_2HPO_4

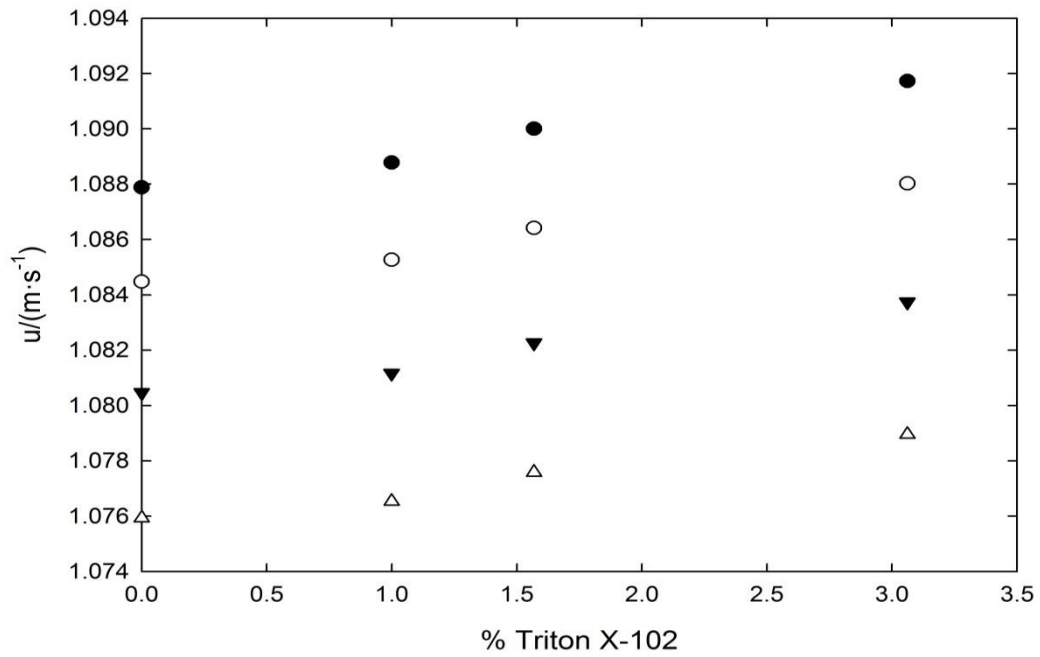


Figura G-243. Velocidad del sonido para el sistema ternario Triton X-102 (1) - K_2HPO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 10.03% K_2HPO_4

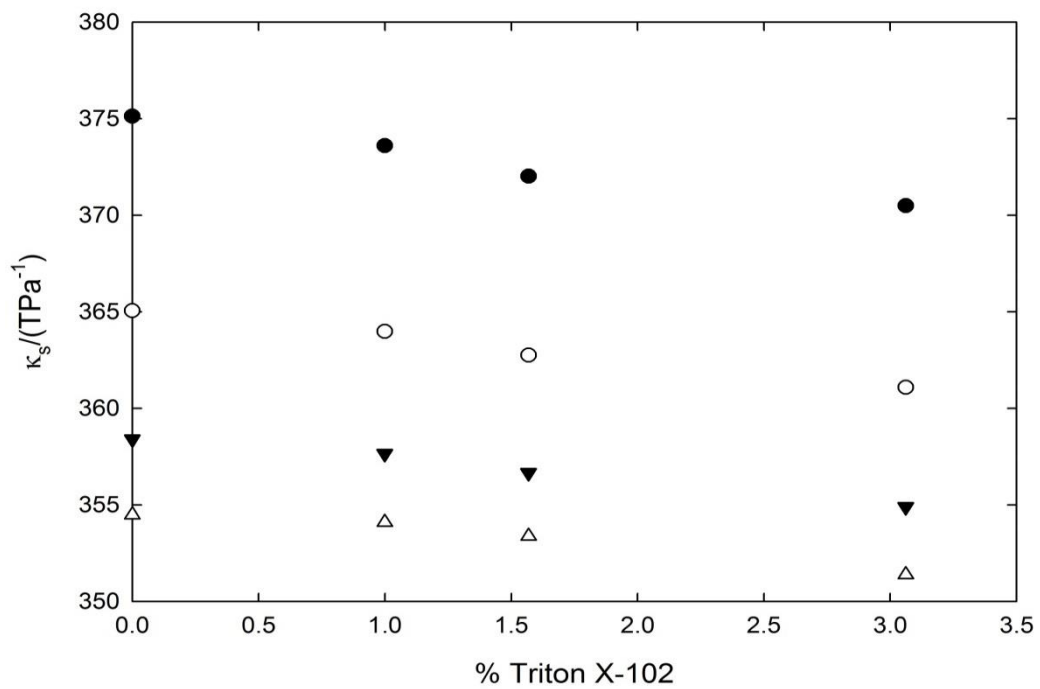


Figura G-244. Compresibilidad isoentrópica para el sistema ternario Triton X-102 (1) - K_2HPO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 10.03% K_2HPO_4

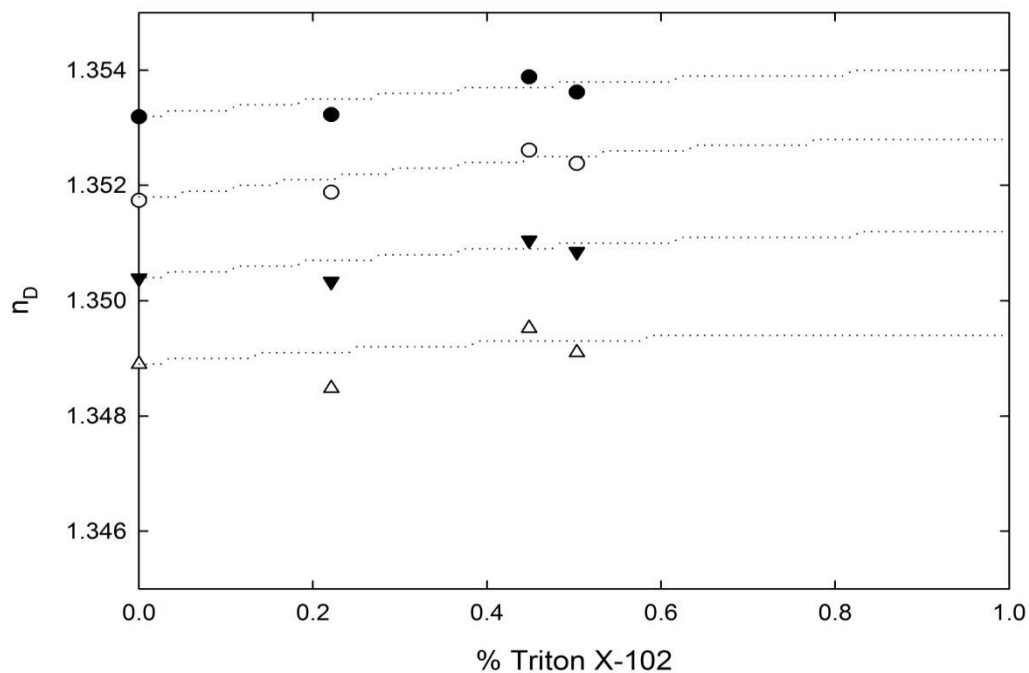


Figura G-245. Índice de refracción para el sistema ternario Triton X-102 (1) - K_2HPO_4 (2) – agua (3) a, ● $T=288.15$ K; ○, $T = 298.15$ K; ▼, $T = 308.15$ K; △, $T = 318.15$ K, 12.55% K_2HPO_4

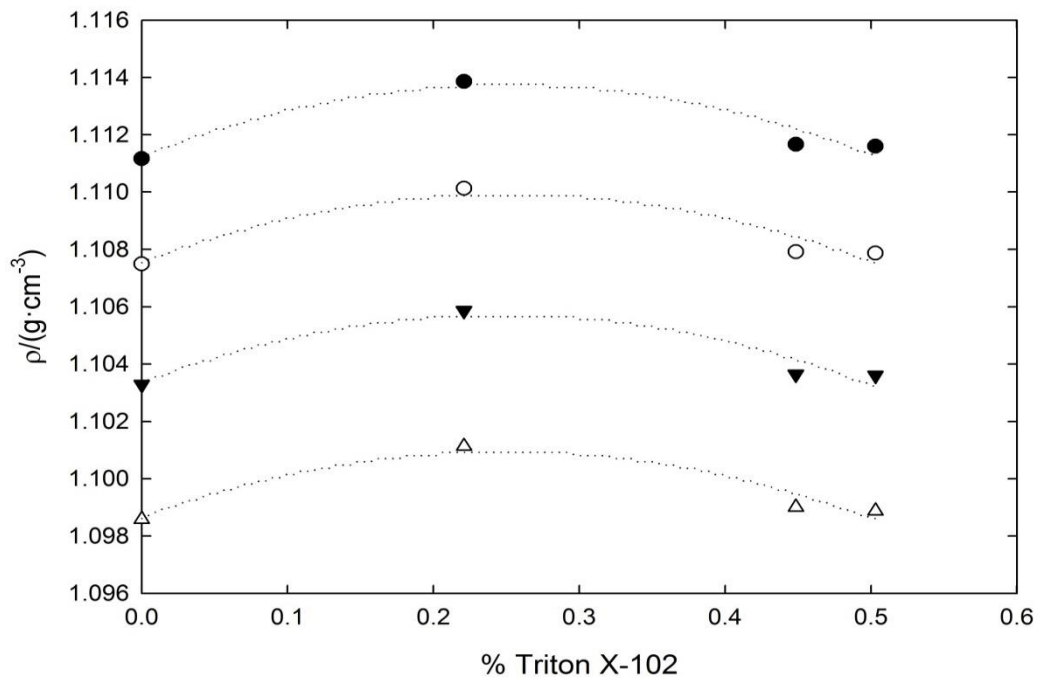


Figura G-246. Densidad para el sistema ternario Triton X-102 (1) - K_2HPO_4 (2) – agua (3) a, ● $T=288.15$ K; ○, $T = 298.15$ K; ▼, $T = 308.15$ K; △, $T = 318.15$ K, 12.55% K_2HPO_4

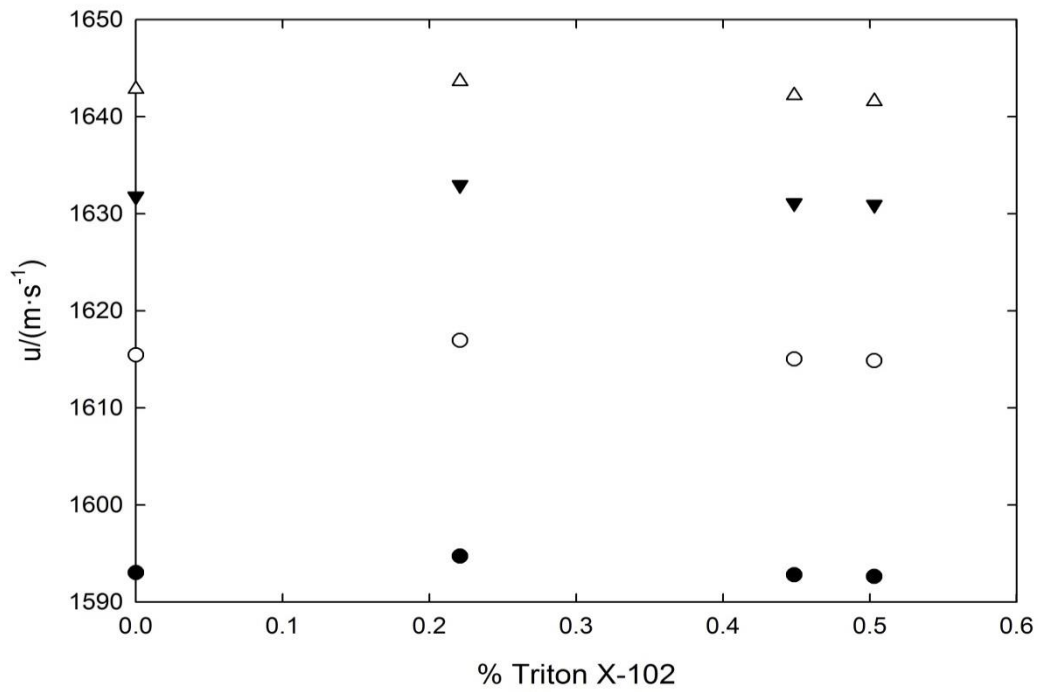


Figura G-247. Velocidad del sonido para el sistema ternario Triton X-102 (1) - K_2HPO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 12.55% K_2HPO_4

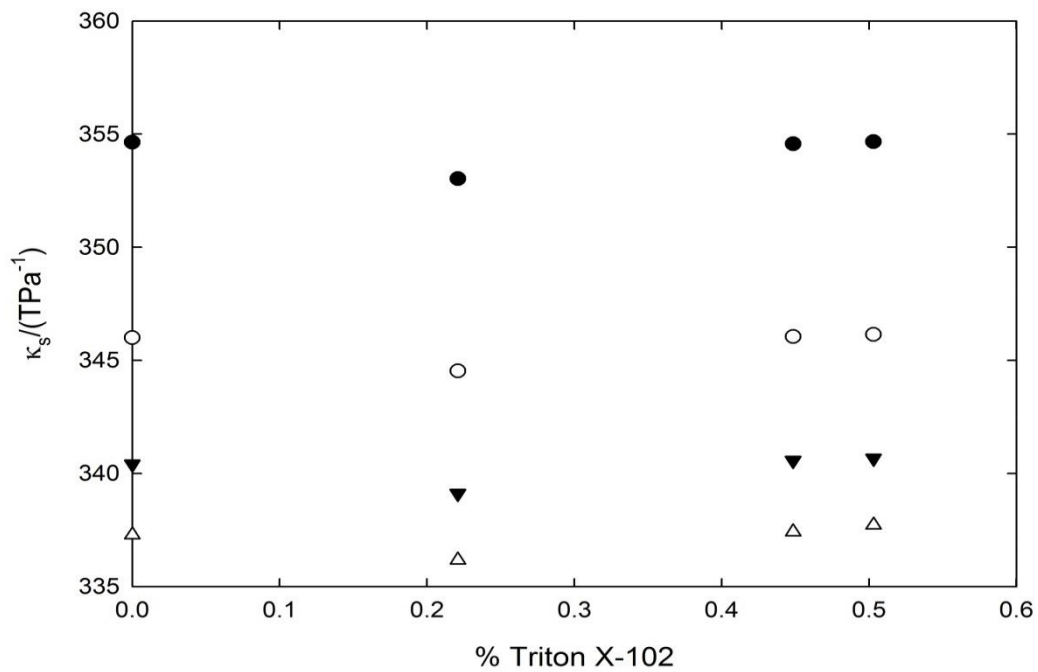


Figura G-248. Compresibilidad isoentrópica para el sistema ternario Triton X-102 (1) - K_2HPO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 12.55% K_2HPO_4

G.1.6.8. Triton X-102 – K₃PO₄ – agua

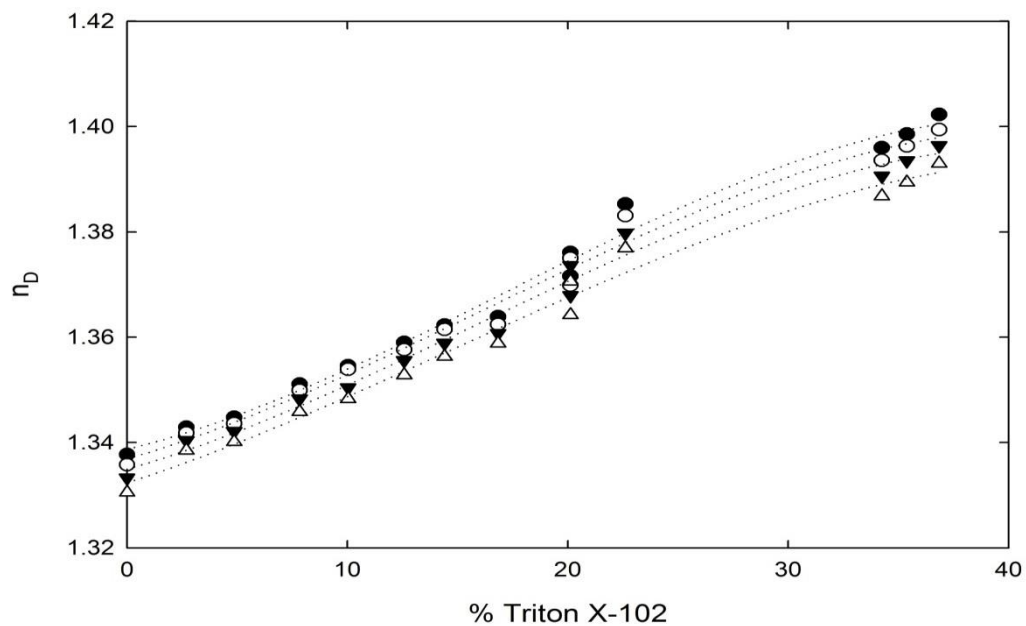


Figura G-249. Índice de refracción para el sistema ternario Triton X-102 (1) - K₃PO₄ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 2.00% K₃PO₄

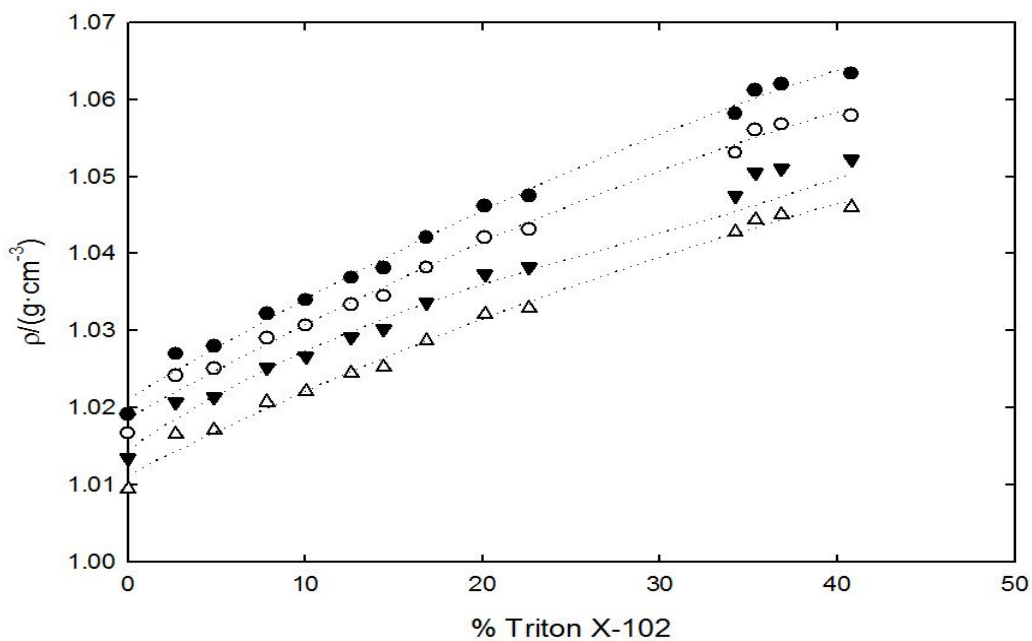


Figura G-250. Densidad para el sistema ternario Triton X-102 (1) - K₃PO₄ (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 2.00% K₃PO₄

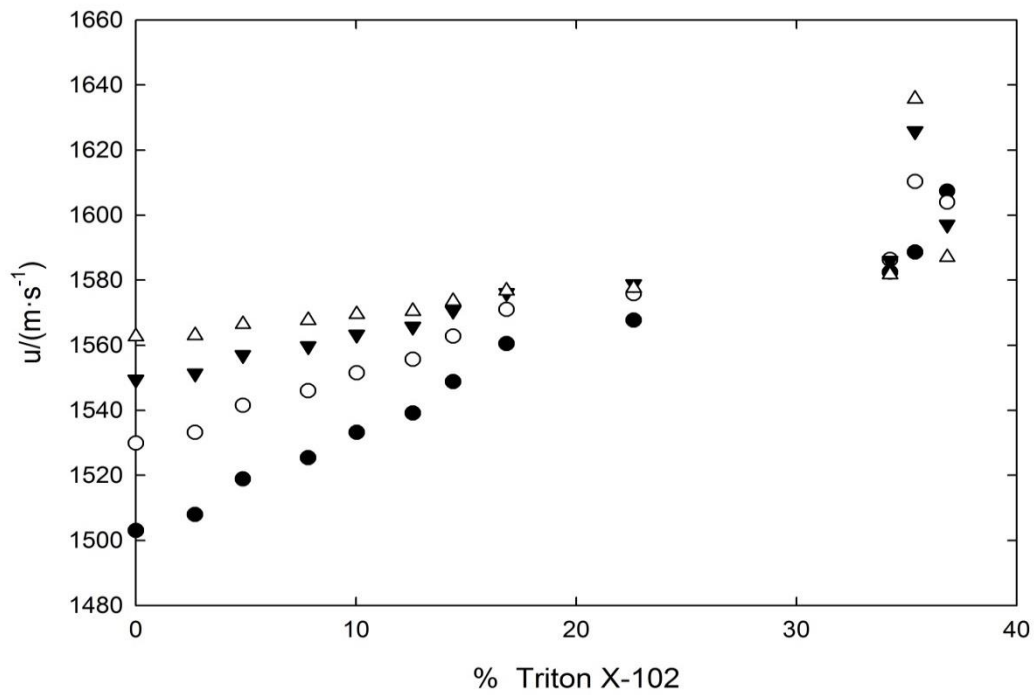


Figura G-251. Velocidad del sonido para el sistema ternario Triton X-102 (1) - K_3PO_4 (2) – agua (3) a, ● $T=288.15\text{ K}$; ○, $T = 298.15\text{ K}$; ▼, $T = 308.15\text{ K}$; △, $T = 318.15\text{ K}$, 2.00% K_3PO_4

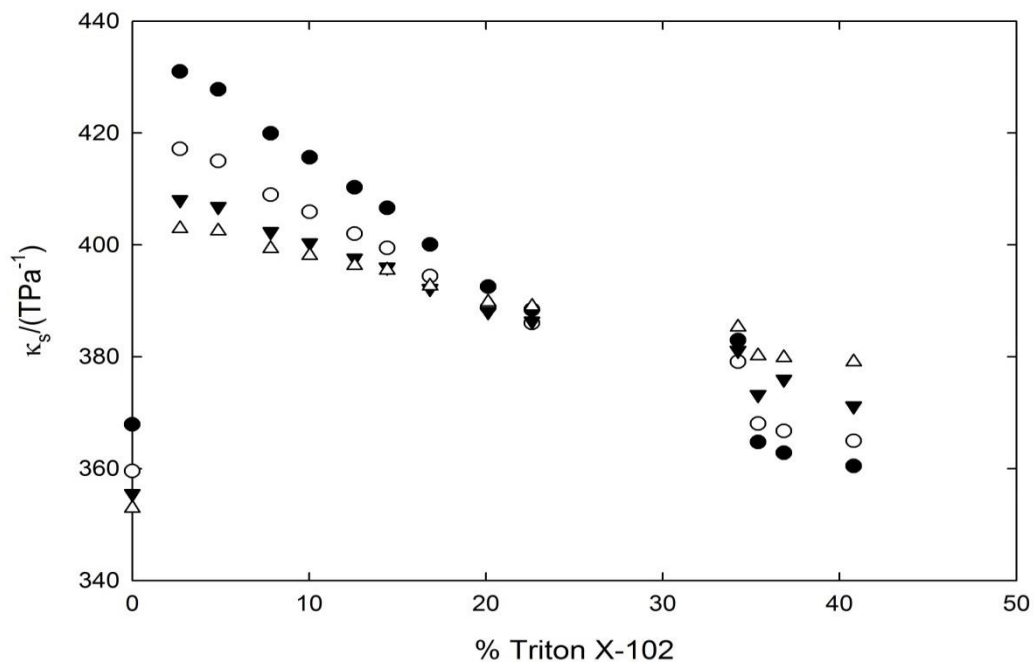


Figura G-252. Compresibilidad isoentrópica para el sistema ternario Triton X-102 (1) - K_3PO_4 (2) – agua (3) a, ● $T=288.15\text{ K}$; ○, $T = 298.15\text{ K}$; ▼, $T = 308.15\text{ K}$; △, $T = 318.15\text{ K}$, 2.00% K_3PO_4

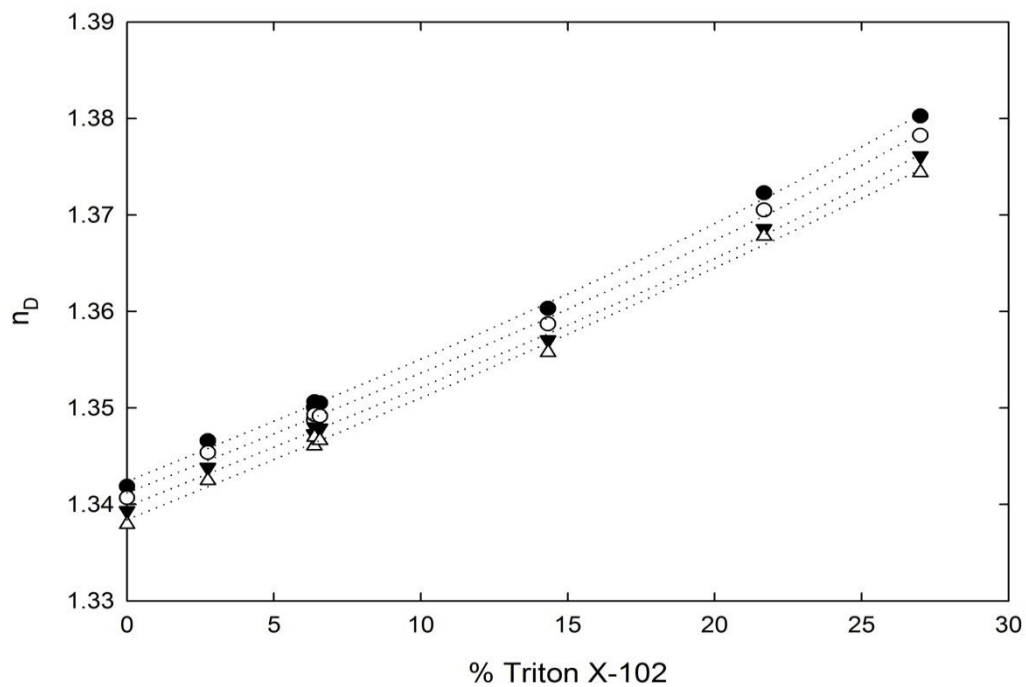


Figura G-253. Índice de refracción para el sistema ternario Triton X-102 (1) - K_3PO_4 (2) - agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 4.43% K_3PO_4

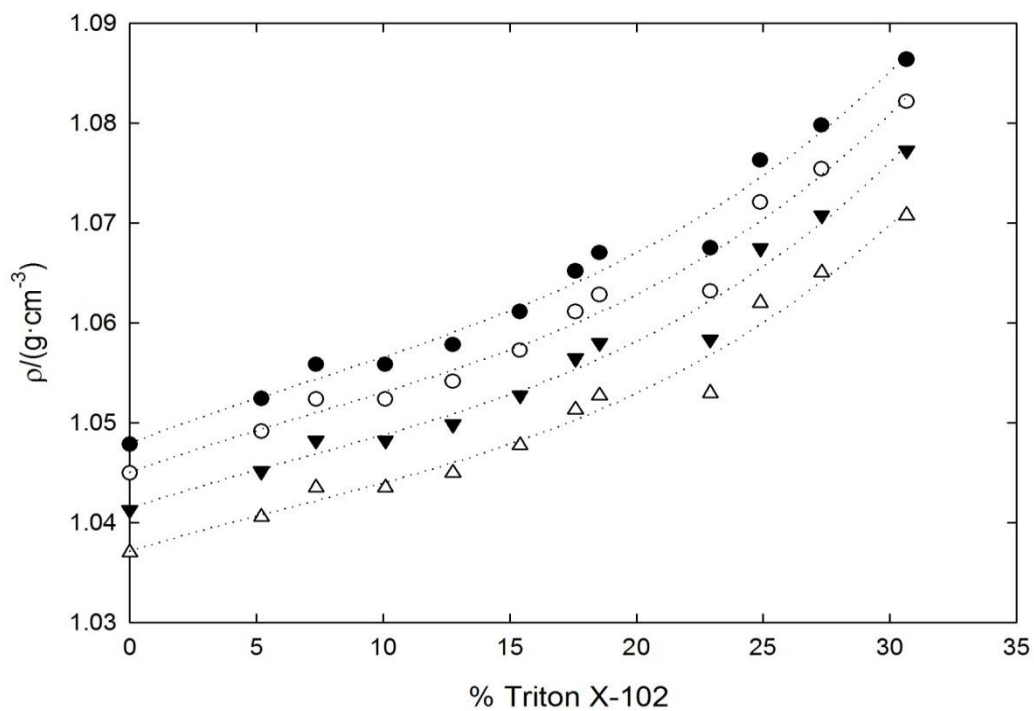


Figura G-254. Densidad para el sistema ternario Triton X-102 (1) - K_3PO_4 (2) - agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; Δ, T = 318.15 K, 4.43% K_3PO_4

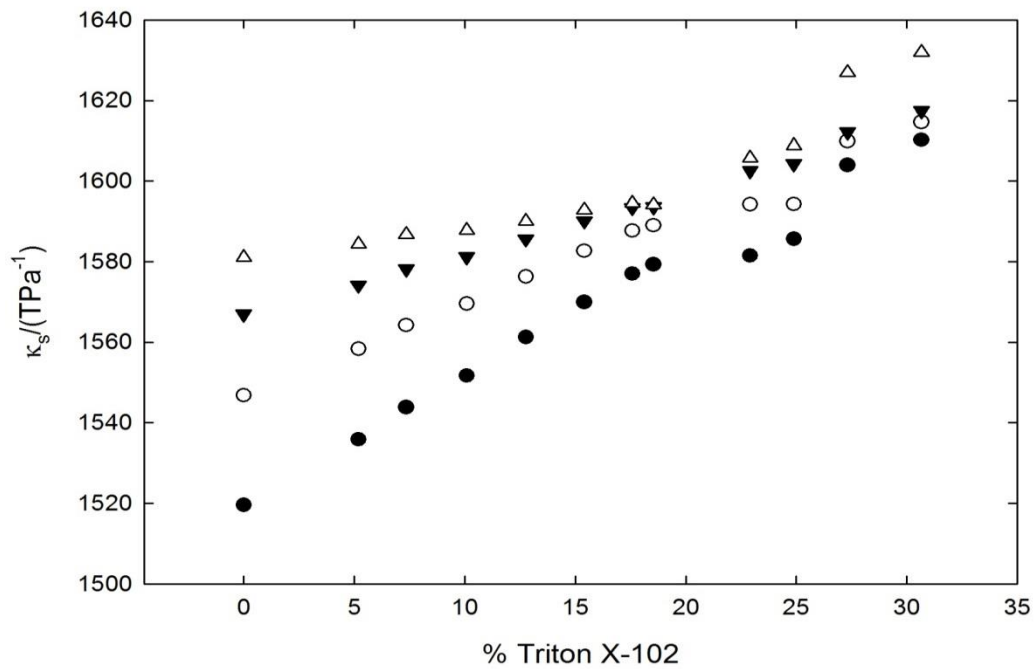


Figura G-255. Velocidad del sonido para el sistema ternario Triton X-102 (1) - K_3PO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 4.43% K_3PO_4

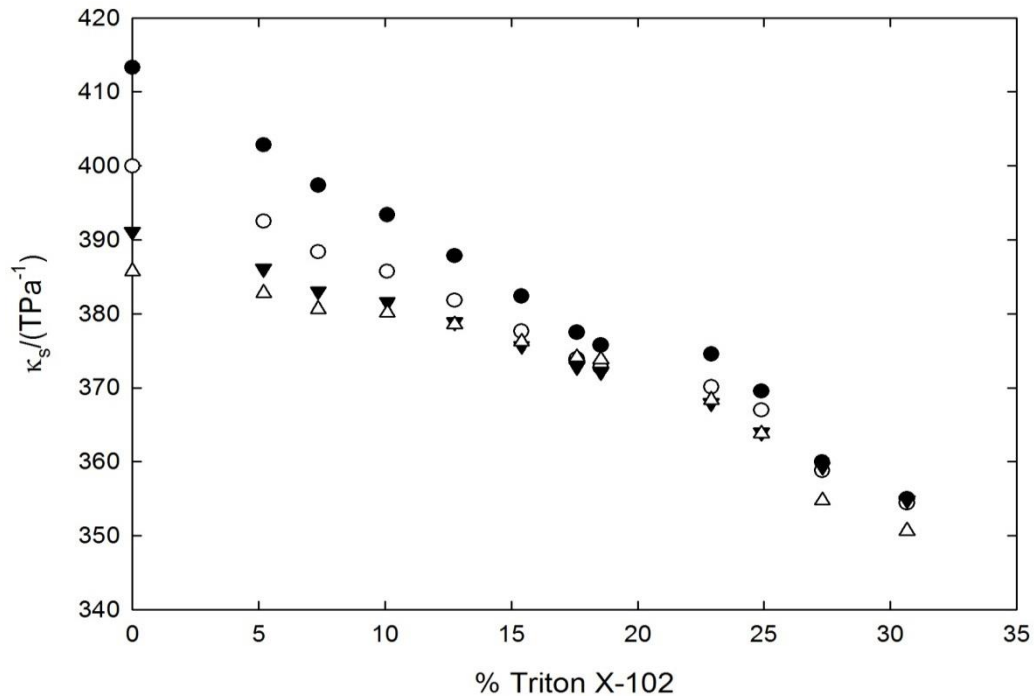


Figura G-256. Compresibilidad isoentrópica para el sistema ternario Triton X-102 (1) - K_3PO_4 (2) – agua (3) a, ● T=288.15 K; ○, T = 298.15 K; ▼, T = 308.15 K; △, T = 318.15 K, 4.43% K_3PO_4

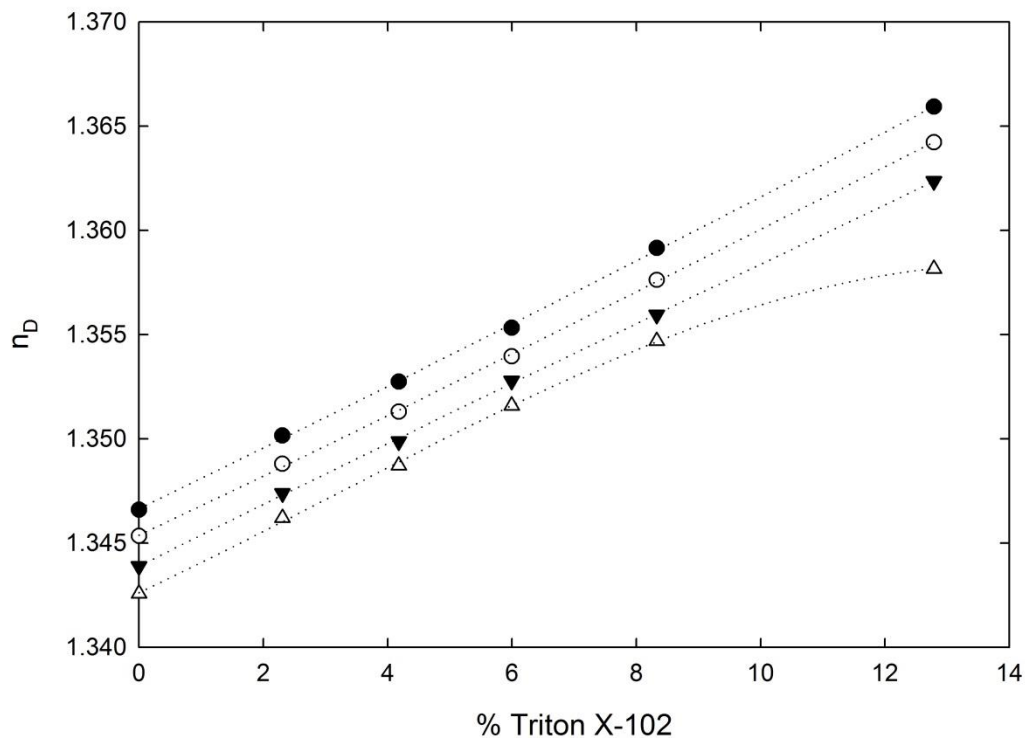


Figura G-257. Índice de refracción para el sistema ternario Triton X-102 (1) - K_3PO_4 (2) - agua (3) a, ● $T=288.15$ K; ○, $T = 298.15$ K; ▼, $T = 308.15$ K; △, $T = 318.15$ K, 7.41% K_3PO_4

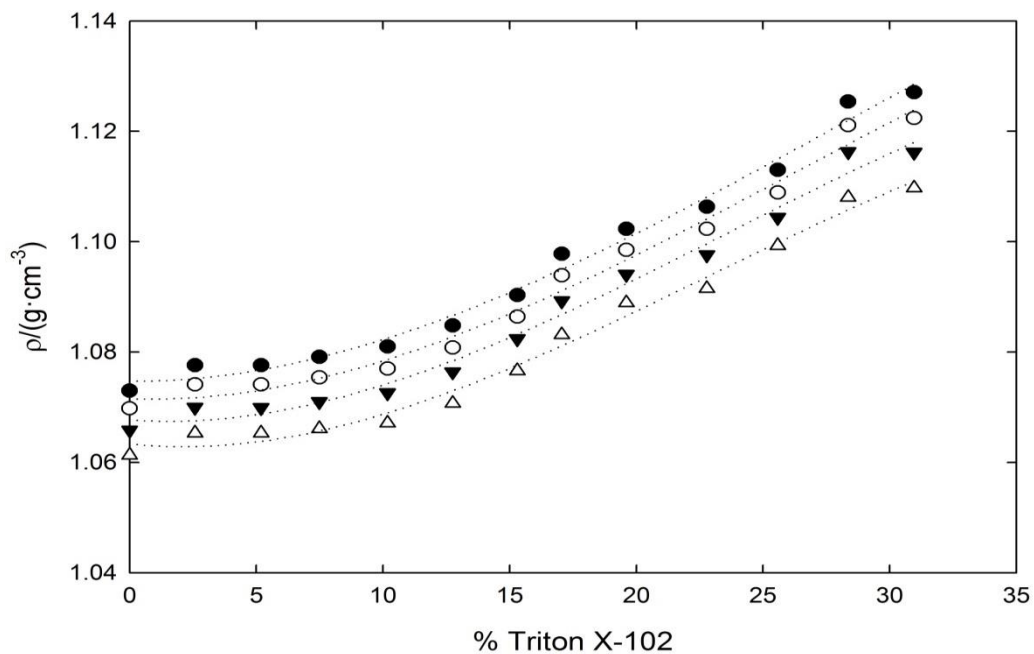


Figura G-258. Densidad para el sistema ternario Triton X-102 (1) - K_3PO_4 (2) - agua (3) a, ● $T=288.15$ K; ○, $T = 298.15$ K; ▼, $T = 308.15$ K; △, $T = 318.15$ K, 7.41% K_3PO_4

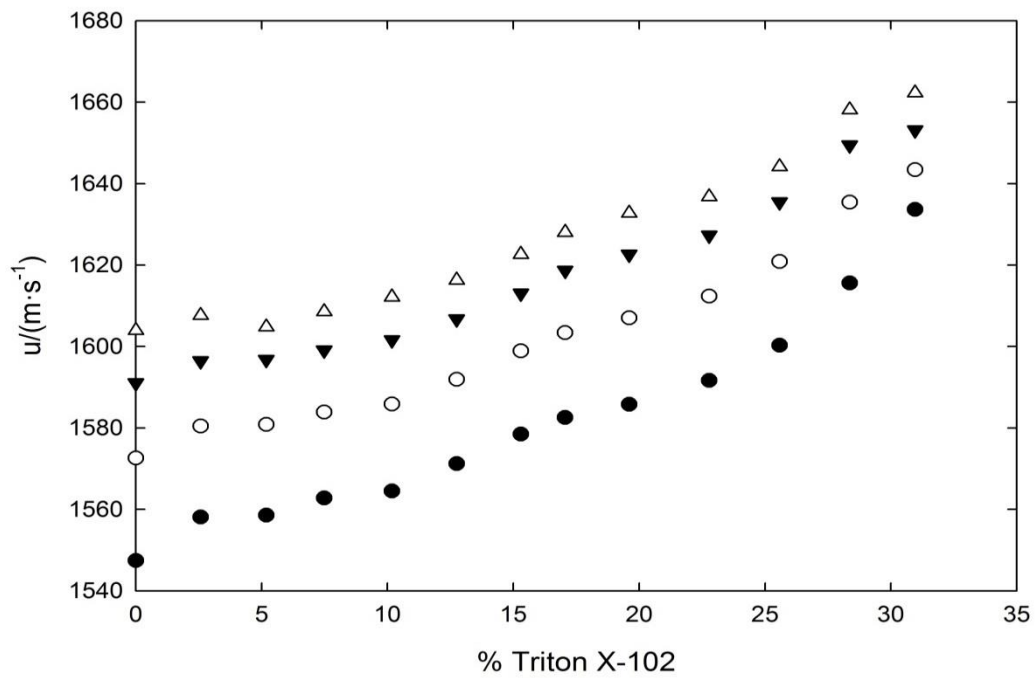


Figura G-259. Velocidad del sonido para el sistema ternario Triton X-102 (1) - K_3PO_4 (2) – agua (3) a, ● $T=288.15$ K; ○, $T = 298.15$ K; ▼, $T = 308.15$ K; Δ, $T = 318.15$ K, 7.41% K_3PO_4

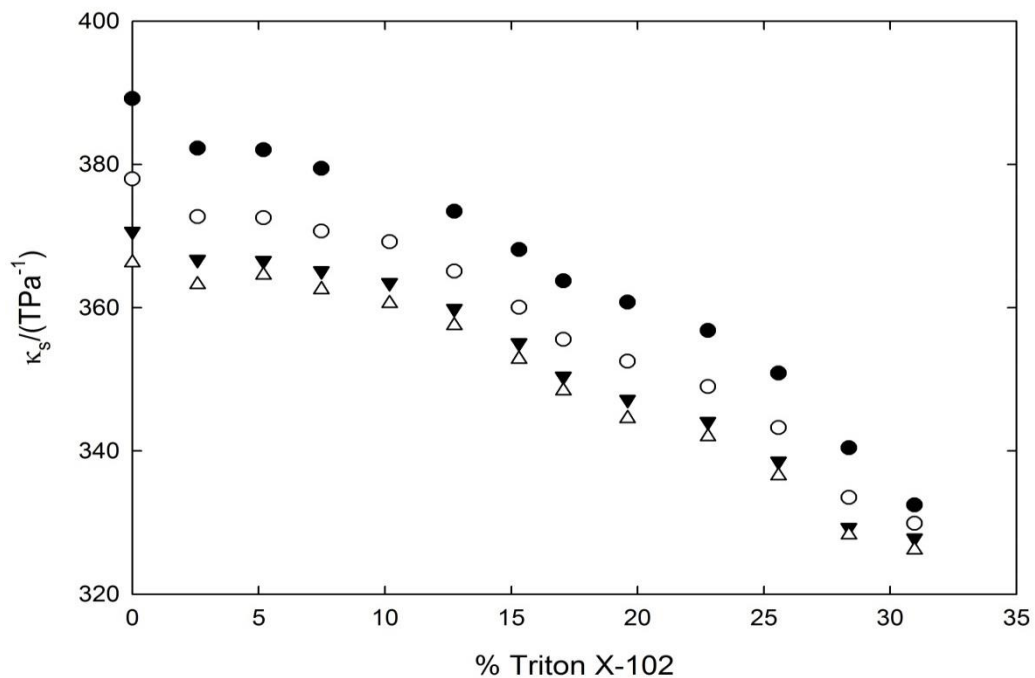


Figura G-260. Compresibilidad isoentrópica para el sistema ternario Triton X-102 (1) - K_3PO_4 (2) – agua (3) a, ● $T=288.15$ K; ○, $T = 298.15$ K; ▼, $T = 308.15$ K; Δ, $T = 318.15$ K, 7.41% K_3PO_4

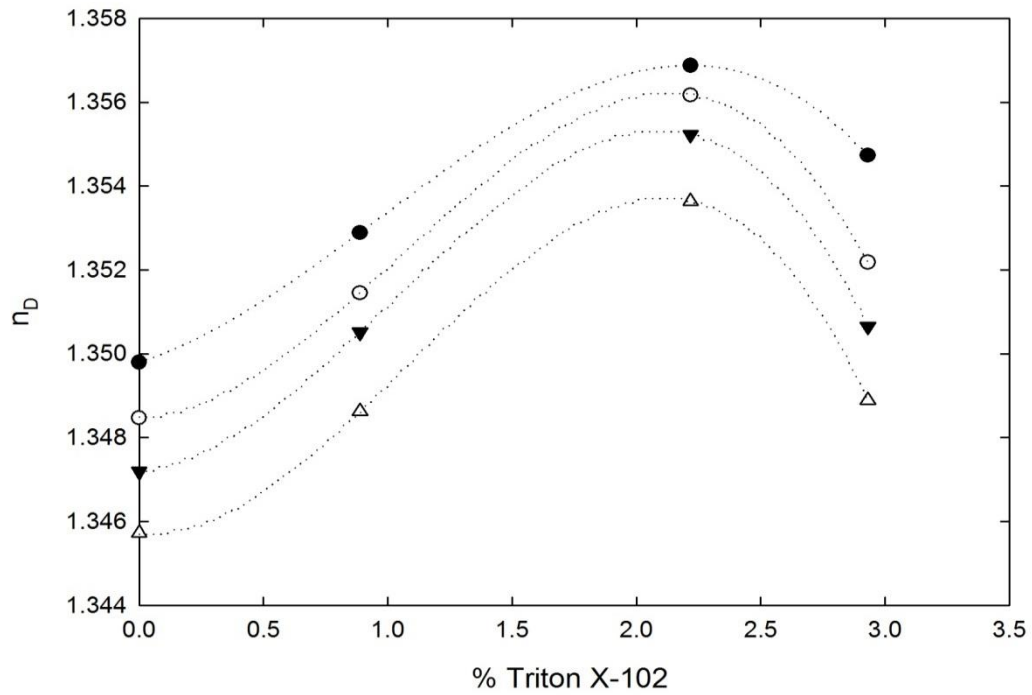


Figura G-261. Índice de refracción para el sistema ternario Triton X-102 (1) - K_3PO_4 (2) - agua (3) a, ● $T=288.15$ K; ○, $T = 298.15$ K; ▼, $T = 308.15$ K; △, $T = 318.15$ K, 10.26% K_3PO_4

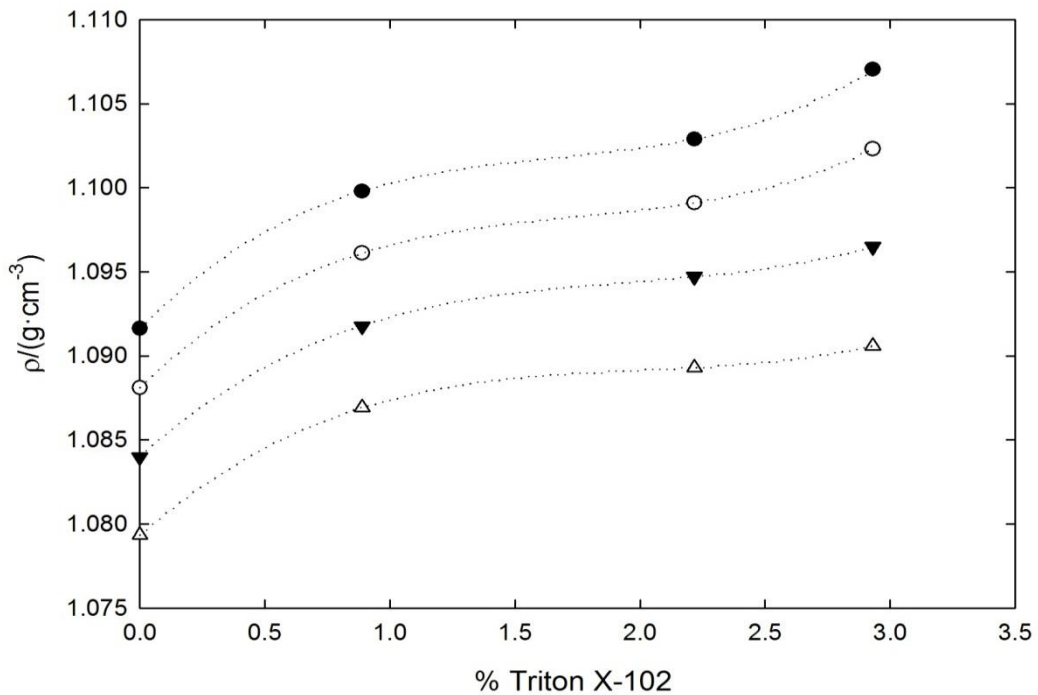


Figura G-262. Densidad para el sistema ternario Triton X-102 (1) - K_3PO_4 (2) - agua (3) a, ● $T=288.15$ K; ○, $T = 298.15$ K; ▼, $T = 308.15$ K; △, $T = 318.15$ K, 10.26% K_3PO_4

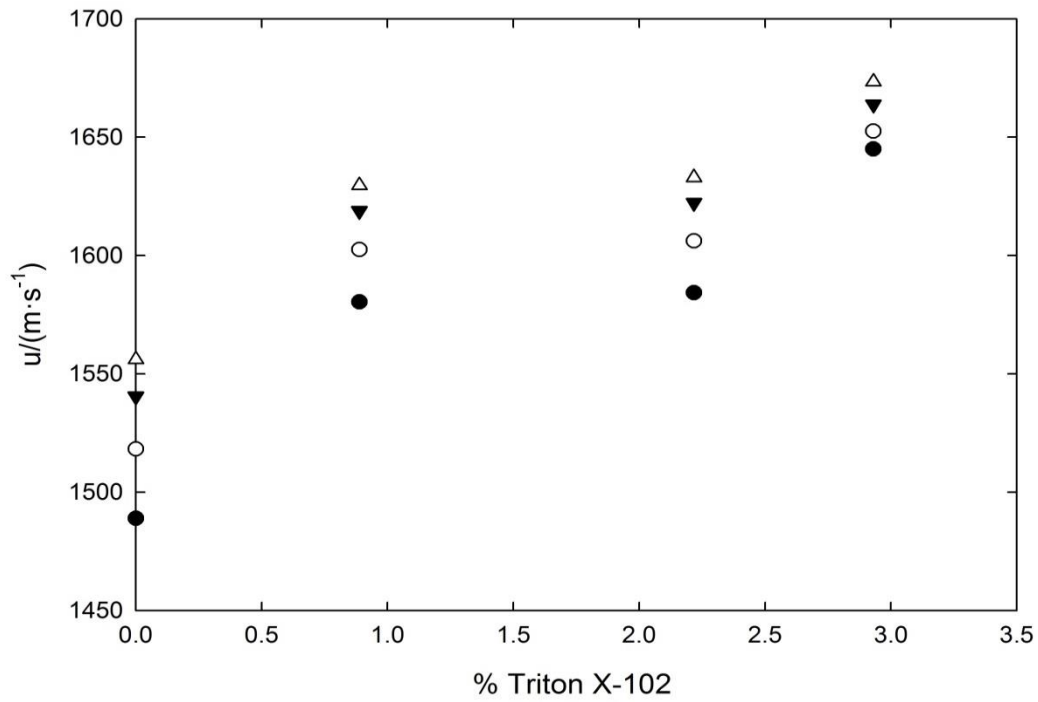


Figura G-263. Velocidad del sonido para el sistema ternario Triton X-102 (1) - K_3PO_4 (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 10.26% K_3PO_4

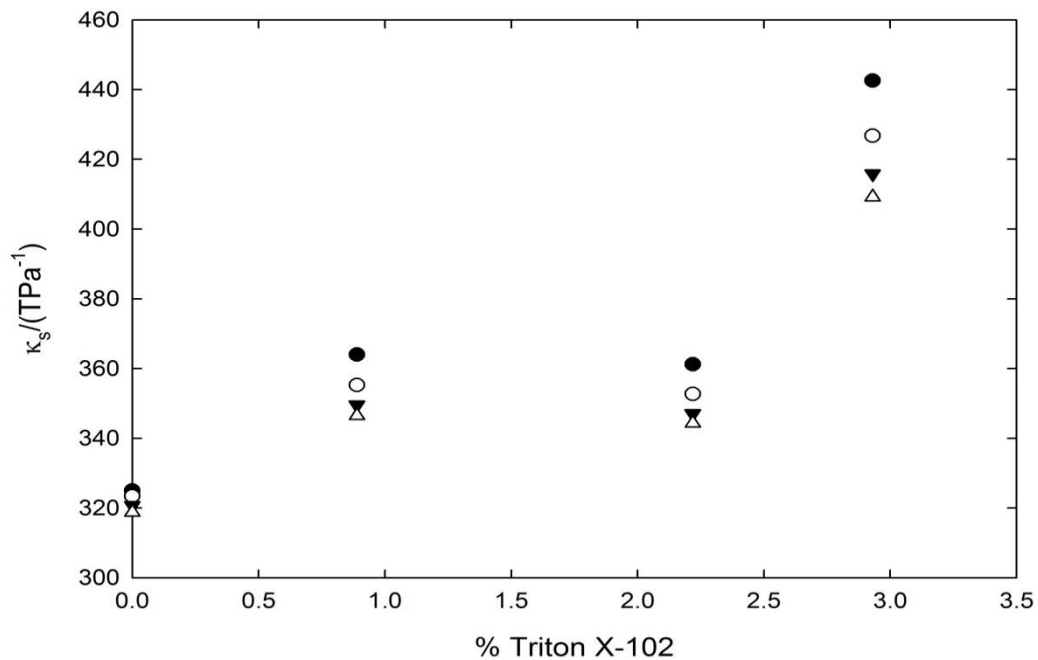


Figura G-264. Compresibilidad isoentrópica para el sistema ternario Triton X-102 (1) - K_3PO_4 (2) – agua (3) a, ● $T=288.15 \text{ K}$; ○, $T = 298.15 \text{ K}$; ▼, $T = 308.15 \text{ K}$; △, $T = 318.15 \text{ K}$, 10.26% K_3PO_4

