**Supplementary Materials**

**Table S1.** Densities, , speeds of sound, , excess molar volumes, , deviation in isentropic compressibilities, , and excess thermal expansion coefficients as functions of mole fraction, of benzyl alcohol for {benzyl alcohol (1) + 1-butanol (2)} mixtures at the temperatures (298.15 to 323.15) .

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | g.cm-3 | m.s-1 | cm3mol-1 | TPa-1 | K-1 |
|  |  | T = 298.15 K |  |  |  |
| 0 | 0.805806 | 1239.94 |  |  |  |
| 0.1071 | 0.835043 | 1272.01 | -0.1292 | -24.802 | -0.0244 |
| 0.2020 | 0.860062 | 1300.26 | -0.2115 | -39.791 | -0.0497 |
| 0.3077 | 0.887024 | 1331.38 | -0.2753 | -49.815 | -0.0631 |
| 0.4081 | 0.911720 | 1360.95 | -0.3045 | -54.042 | -0.0655 |
| 0.5073 | 0.935349 | 1389.56 | -0.3130 | -53.402 | -0.0777 |
| 0.6075 | 0.958408 | 1418.21 | -0.2968 | -48.818 | -0.0555 |
| 0.7083 | 0.980745 | 1446.28 | -0.2499 | -40.365 | -0.0378 |
| 0.8076 | 1.002071 | 1473.93 | -0.1893 | -29.307 | -0.0423 |
| 0.9089 | 1.023003 | 1501.20 | -0.0981 | -14.953 | -0.0119 |
| 1 | 1.041216 | 1525.17 |  |  |  |
|  |  | T = 303.15 K |  |  |  |
| 0 | 0.801970 | 1223.14 |  |  |  |
| 0.1071 | 0.831182 | 1255.30 | -0.1309 | -26.015 | -0.0291 |
| 0.2020 | 0.856190 | 1283.64 | -0.2148 | -41.735 | -0.0535 |
| 0.3077 | 0.883140 | 1314.81 | -0.2795 | -52.183 | -0.0689 |
| 0.4081 | 0.907831 | 1344.16 | -0.3092 | -56.315 | -0.0716 |
| 0.5073 | 0.931460 | 1373.45 | -0.3181 | -56.142 | -0.0789 |
| 0.6075 | 0.954518 | 1402.19 | -0.3014 | -51.301 | -0.0613 |
| 0.7083 | 0.976852 | 1430.09 | -0.2531 | -42.232 | -0.0463 |
| 0.8076 | 0.998190 | 1458.10 | -0.1921 | -30.818 | -0.0414 |
| 0.9089 | 1.019129 | 1485.07 | -0.0994 | -15.536 | -0.0147 |
| 1 | 1.037352 | 1509.34 |  |  |  |
|  |  | T = 308.15 K |  |  |  |
| 0 | 0.798101 | 1206.35 |  |  |  |
| 0.1071 | 0.827294 | 1238.69 | -0.1332 | -27.416 | -0.0339 |
| 0.2020 | 0.852289 | 1267.14 | -0.2184 | -43.916 | -0.0575 |
| 0.3077 | 0.879234 | 1298.43 | -0.2845 | -54.867 | -0.0750 |
| 0.4081 | 0.903921 | 1327.87 | -0.3147 | -59.159 | -0.0779 |
| 0.5073 | 0.927546 | 1357.30 | -0.3233 | -58.973 | -0.0802 |
| 0.6075 | 0.950601 | 1386.12 | -0.3056 | -53.843 | -0.0673 |
| 0.7083 | 0.972943 | 1414.10 | -0.2568 | -44.298 | -0.0551 |
| 0.8076 | 0.994290 | 1442.22 | -0.1949 | -32.317 | -0.0406 |
| 0.9089 | 1.015237 | 1469.31 | -0.1006 | -16.303 | -0.0176 |
| 1 | 1.033474 | 1493.62 |  |  |  |

**Table S1.** (Continued)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | g.cm-3 | m.s-1 | cm3mol-1 | TPa-1 | K-1 |
|  |  | T = 313.15 K |  |  |  |
| 0 | 0.794195 | 1189.70 |  |  |  |
| 0.1071 | 0.823371 | 1222.15 | -0.1292 | -28.807 | -0.0244 |
| 0.2020 | 0.848358 | 1250.76 | -0.2115 | -46.200 | -0.0497 |
| 0.3077 | 0.875295 | 1282.18 | -0.2753 | -57.688 | -0.0631 |
| 0.4081 | 0.899972 | 1311.74 | -0.3045 | -62.167 | -0.0655 |
| 0.5073 | 0.923608 | 1341.25 | -0.3130 | -61.916 | -0.0777 |
| 0.6075 | 0.946661 | 1370.16 | -0.2968 | -56.485 | -0.0555 |
| 0.7083 | 0.969013 | 1398.23 | -0.2499 | -46.440 | -0.0378 |
| 0.8076 | 0.990370 | 1426.48 | -0.1893 | -33.872 | -0.0423 |
| 0.9089 | 1.011330 | 1453.61 | -0.0981 | -17.030 | -0.0119 |
| 1 | 1.029583 | 1478.03 |  |  |  |
|  |  | T = 318.15 K |  |  |  |
| 0 | 0.790248 | 1173.10 |  |  |  |
| 0.1071 | 0.819411 | 1205.71 | -0.1309 | -30.359 | -0.0291 |
| 0.2020 | 0.844389 | 1234.44 | -0.2148 | -48.642 | -0.0535 |
| 0.3077 | 0.871323 | 1266.02 | -0.2795 | -60.731 | -0.0689 |
| 0.4081 | 0.896001 | 1295.71 | -0.3092 | -65.418 | -0.0716 |
| 0.5073 | 0.919638 | 1325.34 | -0.3181 | -65.118 | -0.0789 |
| 0.6075 | 0.942700 | 1354.36 | -0.3014 | -59.377 | -0.0613 |
| 0.7083 | 0.965061 | 1382.55 | -0.2531 | -48.813 | -0.0463 |
| 0.8076 | 0.986431 | 1410.85 | -0.1921 | -35.551 | -0.0414 |
| 0.9089 | 1.007404 | 1438.10 | -0.0994 | -17.876 | -0.0147 |
| 1 | 1.025674 | 1462.63 |  |  |  |
|  |  | T = 323.15 K |  |  |  |
| 0 | 0.786257 | 1156.80 |  |  |  |
| 0.1071 | 0.815410 | 1189.33 | -0.1332 | -31.659 | -0.0339 |
| 0.2020 | 0.840381 | 1218.20 | -0.2184 | -50.950 | -0.0575 |
| 0.3077 | 0.867318 | 1250.22 | -0.2845 | -64.048 | -0.0750 |
| 0.4081 | 0.892000 | 1279.92 | -0.3147 | -68.830 | -0.0779 |
| 0.5073 | 0.915633 | 1309.07 | -0.3233 | -67.903 | -0.0802 |
| 0.6075 | 0.938711 | 1338.26 | -0.3056 | -61.960 | -0.0673 |
| 0.7083 | 0.961091 | 1367.10 | -0.2568 | -51.342 | -0.0551 |
| 0.8076 | 0.982459 | 1394.95 | -0.1949 | -36.981 | -0.0406 |
| 0.9089 | 1.003462 | 1422.88 | -0.1006 | -18.872 | -0.0176 |
| 1 | 1.021746 | 1447.28 |  |  |  |

**Table S2.** Densities, , speeds of sound, , excess molar volumes, , deviation in isentropic compressibilities, , and excess thermal expansion coefficients as functions of mole fraction, of benzyl alcohol for {benzyl alcohol (1) + 2-butanol (2)} mixtures at the temperatures (298.15 to 323.15) .

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | g.cm-3 | m.s-1 | cm3mol-1 | TPa-1 | K-1 |
|  |  | T = 298.15 K |  |  |  |
| 0 | 0.802938 | 1212.86 |  |  |  |
| 0.1071 | 0.832282 | 1249.01 | -0.1138 | -29.982 | -0.0780 |
| 0.2020 | 0.857513 | 1281.08 | -0.1940 | -48.431 | -0.1189 |
| 0.3077 | 0.884749 | 1316.11 | -0.2579 | -60.622 | -0.1531 |
| 0.4081 | 0.909776 | 1348.96 | -0.2931 | -65.545 | -0.1505 |
| 0.5073 | 0.933791 | 1380.98 | -0.3124 | -65.018 | -0.1579 |
| 0.6075 | 0.957221 | 1412.58 | -0.3038 | -59.527 | -0.1188 |
| 0.7083 | 0.979973 | 1443.14 | -0.2676 | -49.381 | -0.1018 |
| 0.8076 | 1.001641 | 1472.42 | -0.2099 | -35.776 | -0.0844 |
| 0.9089 | 1.022790 | 1500.71 | -0.1077 | -18.193 | -0.0432 |
| 1 | 1.041216 | 1525.17 |  |  |  |
|  |  | T = 303.15 K |  |  |  |
| 0 | 0.798732 | 1194.81 |  |  |  |
| 0.1071 | 0.828111 | 1231.54 | -0.1186 | -32.198 | -0.1008 |
| 0.2020 | 0.853370 | 1263.75 | -0.2014 | -51.566 | -0.1571 |
| 0.3077 | 0.880644 | 1299.28 | -0.2677 | -64.661 | -0.1950 |
| 0.4081 | 0.905698 | 1332.05 | -0.3031 | -69.475 | -0.2005 |
| 0.5073 | 0.929752 | 1364.53 | -0.3229 | -69.055 | -0.2033 |
| 0.6075 | 0.953212 | 1396.18 | -0.3129 | -63.040 | -0.1677 |
| 0.7083 | 0.975995 | 1426.72 | -0.2747 | -52.105 | -0.1376 |
| 0.8076 | 0.997705 | 1456.46 | -0.2155 | -37.883 | -0.1039 |
| 0.9089 | 1.018891 | 1484.60 | -0.1103 | -19.095 | -0.0540 |
| 1 | 1.037352 | 1509.34 |  |  |  |
|  |  | T = 308.15 K |  |  |  |
| 0 | 0.794435 | 1176.58 |  |  |  |
| 0.1071 | 0.823863 | 1213.78 | -0.1245 | -34.456 | -0.1242 |
| 0.2020 | 0.849164 | 1246.33 | -0.2109 | -55.070 | -0.1963 |
| 0.3077 | 0.876484 | 1282.17 | -0.2797 | -68.911 | -0.2380 |
| 0.4081 | 0.901577 | 1315.15 | -0.3157 | -73.885 | -0.2517 |
| 0.5073 | 0.925672 | 1347.87 | -0.3355 | -73.347 | -0.2499 |
| 0.6075 | 0.949150 | 1379.73 | -0.3220 | -66.867 | -0.2175 |
| 0.7083 | 0.971993 | 1410.43 | -0.2839 | -55.197 | -0.1744 |
| 0.8076 | 0.993746 | 1440.39 | -0.2223 | -40.109 | -0.1239 |
| 0.9089 | 1.014981 | 1469.31 | -0.1144 | -20.202 | -0.0650 |
| 1 | 1.033474 | 1493.62 |  |  |  |

**Table S2.** (Continued)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | g.cm-3 | m.s-1 | cm3mol-1 | TPa-1 | K-1 |
|  |  | T = 313.15 K |  |  |  |
| 0 | 0.790042 | 1158.28 |  |  |  |
| 0.1071 | 0.819534 | 1195.96 | -0.1315 | -36.914 | -0.1482 |
| 0.2020 | 0.844891 | 1228.89 | -0.2224 | -58.915 | -0.2365 |
| 0.3077 | 0.872262 | 1265.04 | -0.2934 | -73.529 | -0.2821 |
| 0.4081 | 0.897408 | 1298.28 | -0.3307 | -78.700 | -0.3042 |
| 0.5073 | 0.921553 | 1331.28 | -0.3505 | -78.040 | -0.2977 |
| 0.6075 | 0.945096 | 1363.35 | -0.3375 | -71.048 | -0.2688 |
| 0.7083 | 0.967966 | 1394.23 | -0.2949 | -58.545 | -0.2121 |
| 0.8076 | 0.989766 | 1424.40 | -0.2304 | -42.482 | -0.1445 |
| 0.9089 | 1.011045 | 1452.92 | -0.1182 | -21.363 | -0.0764 |
| 1 | 1.029583 | 1478.03 |  |  |  |
|  |  | T = 318.15 K |  |  |  |
| 0 | 0.785546 | 1139.85 |  |  |  |
| 0.1071 | 0.815122 | 1178.05 | -0.1401 | -39.653 | -0.1730 |
| 0.2020 | 0.840544 | 1211.41 | -0.2359 | -63.208 | -0.2779 |
| 0.3077 | 0.867974 | 1247.51 | -0.3091 | -78.200 | -0.3276 |
| 0.4081 | 0.893187 | 1281.43 | -0.3483 | -84.049 | -0.3582 |
| 0.5073 | 0.917391 | 1314.71 | -0.3681 | -83.220 | -0.3470 |
| 0.6075 | 0.940989 | 1347.02 | -0.3535 | -75.653 | -0.3213 |
| 0.7083 | 0.963907 | 1378.11 | -0.3076 | -62.246 | -0.2508 |
| 0.8076 | 0.985749 | 1408.16 | -0.2384 | -44.852 | -0.1657 |
| 0.9089 | 1.007089 | 1437.28 | -0.1226 | -22.677 | -0.0881 |
| 1 | 1.025674 | 1462.63 |  |  |  |
|  |  | T = 323.15 K |  |  |  |
| 0 | 0.780945 | 1121.28 |  |  |  |
| 0.1071 | 0.810616 | 1160.01 | -0.1496 | -42.649 | -0.1985 |
| 0.2020 | 0.836121 | 1193.85 | -0.2517 | -67.958 | -0.3205 |
| 0.3077 | 0.863633 | 1230.30 | -0.3288 | -83.831 | -0.3746 |
| 0.4081 | 0.888918 | 1264.56 | -0.3696 | -89.954 | -0.4138 |
| 0.5073 | 0.913184 | 1298.15 | -0.3887 | -88.928 | -0.3977 |
| 0.6075 | 0.936844 | 1330.74 | -0.3723 | -80.732 | -0.3752 |
| 0.7083 | 0.959822 | 1362.06 | -0.3232 | -66.326 | -0.2906 |
| 0.8076 | 0.981716 | 1392.32 | -0.2493 | -47.702 | -0.1877 |
| 0.9089 | 1.003116 | 1421.99 | -0.1285 | -24.290 | -0.1002 |
| 1 | 1.021746 | 1447.28 |  |  |  |

**Table S3.** Densities, , speeds of sound, , excess molar volumes, , deviation in isentropic compressibilities, , and excess thermal expansion coefficients as functions of mole fraction, of benzyl alcohol for {benzyl alcohol (1) + 2-methyl-1-butanol (2)} mixtures at the temperatures (298.15 to 323.15) .

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | g.cm-3 | m.s-1 | cm3mol-1 | TPa-1 | K-1 |
|  |  | T = 298.15 K |  |  |  |
| 0 | 0.815339 | 1254.37 |  |  |  |
| 0.1 | 0.837522 | 1278.40 | -0.0512 | -12.251 | -0.0202 |
| 0.2 | 0.859861 | 1302.77 | -0.0973 | -20.951 | -0.0196 |
| 0.3 | 0.882278 | 1328.29 | -0.1289 | -27.121 | -0.0335 |
| 0.4 | 0.904790 | 1354.12 | -0.1490 | -30.120 | -0.0412 |
| 0.5 | 0.927417 | 1381.24 | -0.1606 | -31.036 | -0.0506 |
| 0.6 | 0.950125 | 1408.82 | -0.1603 | -29.278 | -0.0394 |
| 0.7 | 0.972866 | 1436.96 | -0.1438 | -25.103 | -0.0272 |
| 0.8 | 0.995661 | 1466.03 | -0.1142 | -18.944 | -0.0273 |
| 0.9 | 1.018477 | 1495.43 | -0.0691 | -10.544 | -0.0125 |
| 1 | 1.041216 | 1525.17 |  |  |  |
|  |  | T = 303.15 K |  |  |  |
| 0 | 0.811568 | 1237.29 |  |  |  |
| 0.1 | 0.833731 | 1261.57 | -0.0525 | -13.085 | -0.0221 |
| 0.2 | 0.856048 | 1285.99 | -0.0991 | -22.163 | -0.0331 |
| 0.3 | 0.878451 | 1311.75 | -0.1315 | -28.769 | -0.0467 |
| 0.4 | 0.900954 | 1337.62 | -0.1524 | -31.824 | -0.0597 |
| 0.5 | 0.923573 | 1365.09 | -0.1644 | -32.948 | -0.0672 |
| 0.6 | 0.946270 | 1392.62 | -0.1636 | -30.906 | -0.0582 |
| 0.7 | 0.969004 | 1420.79 | -0.1464 | -26.403 | -0.0466 |
| 0.8 | 0.991798 | 1450.09 | -0.1163 | -19.954 | -0.0378 |
| 0.9 | 1.014613 | 1479.57 | -0.0701 | -11.050 | -0.0187 |
| 1 | 1.037352 | 1509.34 |  |  |  |
|  |  | T = 308.15 K |  |  |  |
| 0 | 0.807750 | 1220.32 |  |  |  |
| 0.1 | 0.829895 | 1244.77 | -0.0539 | -13.891 | -0.0241 |
| 0.2 | 0.852199 | 1269.35 | -0.1018 | -23.523 | -0.0469 |
| 0.3 | 0.874590 | 1294.79 | -0.1351 | -30.013 | -0.0602 |
| 0.4 | 0.897086 | 1321.28 | -0.1568 | -33.743 | -0.0786 |
| 0.5 | 0.919700 | 1348.90 | -0.1691 | -34.921 | -0.0843 |
| 0.6 | 0.942390 | 1376.54 | -0.1679 | -32.726 | -0.0774 |
| 0.7 | 0.965121 | 1404.81 | -0.1501 | -27.935 | -0.0664 |
| 0.8 | 0.987915 | 1434.20 | -0.1191 | -21.088 | -0.0486 |
| 0.9 | 1.010730 | 1463.77 | -0.0715 | -11.666 | -0.0250 |
| 1 | 1.033474 | 1493.62 |  |  |  |

**Table S3.** (Continued)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | g.cm-3 | m.s-1 | cm3mol-1 | TPa-1 | K-1 |
|  |  | T = 313.15 K |  |  |  |
| 0 | 0.803882 | 1203.42 |  |  |  |
| 0.1 | 0.826013 | 1228.07 | -0.0555 | -14.788 | -0.0261 |
| 0.2 | 0.848308 | 1252.81 | -0.1050 | -25.004 | -0.0610 |
| 0.3 | 0.870692 | 1278.94 | -0.1394 | -32.461 | -0.0741 |
| 0.4 | 0.893186 | 1305.09 | -0.1621 | -35.852 | -0.0978 |
| 0.5 | 0.915798 | 1332.86 | -0.1748 | -37.071 | -0.1016 |
| 0.6 | 0.938486 | 1360.59 | -0.1732 | -34.682 | -0.0970 |
| 0.7 | 0.961217 | 1388.96 | -0.1546 | -29.570 | -0.0865 |
| 0.8 | 0.984011 | 1418.47 | -0.1223 | -22.305 | -0.0595 |
| 0.9 | 1.006831 | 1448.13 | -0.0733 | -12.319 | -0.0314 |
| 1 | 1.029583 | 1478.03 |  |  |  |
|  |  | T = 318.15 K |  |  |  |
| 0 | 0.799957 | 1186.58 |  |  |  |
| 0.1 | 0.822081 | 1211.39 | -0.0578 | -15.706 | -0.0284 |
| 0.2 | 0.844373 | 1236.37 | -0.1093 | -26.659 | -0.0754 |
| 0.3 | 0.866748 | 1262.45 | -0.1441 | -34.307 | -0.0882 |
| 0.4 | 0.889250 | 1288.96 | -0.1686 | -38.136 | -0.1175 |
| 0.5 | 0.911863 | 1316.86 | -0.1816 | -39.381 | -0.1194 |
| 0.6 | 0.934553 | 1344.58 | -0.1796 | -36.701 | -0.1170 |
| 0.7 | 0.957287 | 1373.30 | -0.1601 | -31.457 | -0.1070 |
| 0.8 | 0.980086 | 1402.83 | -0.1265 | -23.665 | -0.0708 |
| 0.9 | 1.002912 | 1432.60 | -0.0756 | -13.091 | -0.0380 |
| 1 | 1.025674 | 1462.63 |  |  |  |
|  |  | T = 323.15 K |  |  |  |
| 0 | 0.795977 | 1170.01 |  |  |  |
| 0.1 | 0.818089 | 1194.56 | -0.0591 | -16.080 | -0.0306 |
| 0.2 | 0.840393 | 1220.13 | -0.1144 | -28.347 | -0.0901 |
| 0.3 | 0.862767 | 1246.17 | -0.1503 | -36.222 | -0.1028 |
| 0.4 | 0.885279 | 1273.14 | -0.1765 | -40.642 | -0.1377 |
| 0.5 | 0.907894 | 1300.96 | -0.1893 | -41.702 | -0.1377 |
| 0.6 | 0.930593 | 1328.91 | -0.1873 | -38.951 | -0.1375 |
| 0.7 | 0.953340 | 1357.78 | -0.1675 | -33.409 | -0.1280 |
| 0.8 | 0.976134 | 1387.20 | -0.1309 | -24.964 | -0.0822 |
| 0.9 | 0.998968 | 1417.06 | -0.0778 | -13.774 | -0.0447 |
| 1 | 1.021746 | 1447.28 |  |  |  |

**Table S4.** Densities, , speeds of sound, , excess molar volumes, , deviation in isentropic compressibilities, , and excess thermal expansion coefficients as functions of mole fraction, of benzyl alcohol for {benzyl alcohol (1) + *tert*-butanol (2)} mixtures at the temperatures (303.15 to 328.15) .

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | g.cm-3 | m.s-1 | cm3mol-1 | TPa-1 | K-1 |
| T = 303.15 K | | | | | |
| 0 | 0.775487 | 1098.96 |  |  |  |
| 0.1071 | 0.808391 | 1155.77 | -0.3117 | -72.663 | -0.5858 |
| 0.2020 | 0.836384 | 1201.67 | -0.4938 | -109.575 | -0.9017 |
| 0.3077 | 0.866399 | 1249.68 | -0.6144 | -130.382 | -1.0460 |
| 0.4081 | 0.893956 | 1292.95 | -0.6736 | -135.607 | -1.0544 |
| 0.5073 | 0.920170 | 1333.50 | -0.6705 | -129.681 | -0.9898 |
| 0.6075 | 0.945707 | 1372.85 | -0.6161 | -115.216 | -0.8566 |
| 0.7083 | 0.970646 | 1410.81 | -0.5322 | -93.695 | -0.6596 |
| 0.8076 | 0.994224 | 1446.16 | -0.3949 | -66.385 | -0.4582 |
| 0.9089 | 1.017394 | 1480.36 | -0.3949 | -33.525 | -0.2271 |
| 1 | 1.037352 | 1509.34 |  |  |  |
| T = 308.15 K | | | | | |
| 0 | 0.770296 | 1077.23 |  |  |  |
| 0.1071 | 0.803494 | 1135.32 | -0.3423 | -79.825 | -0.6082 |
| 0.2020 | 0.831690 | 1182.20 | -0.5403 | -120.087 | -0.9196 |
| 0.3077 | 0.861883 | 1231.05 | -0.6691 | -142.420 | -1.0749 |
| 0.4081 | 0.889572 | 1274.90 | -0.7293 | -147.644 | -1.0917 |
| 0.5073 | 0.915903 | 1316.17 | -0.7236 | -141.060 | -1.0272 |
| 0.6075 | 0.941538 | 1355.96 | -0.6627 | -125.058 | -0.8943 |
| 0.7083 | 0.966554 | 1394.05 | -0.5688 | -101.310 | -0.6979 |
| 0.8076 | 0.990210 | 1429.83 | -0.4205 | -71.710 | -0.4845 |
| 0.9089 | 1.013453 | 1464.37 | -0.2256 | -36.168 | -0.2392 |
| 1 | 1.033474 | 1493.62 |  |  |  |
| T = 313.15 K | | | | | |
| 0 | 0.765002 | 1055.78 |  |  |  |
| 0.1071 | 0.798508 | 1114.95 | -0.3750 | -87.330 | -0.6317 |
| 0.2020 | 0.826918 | 1162.72 | -0.5896 | -131.154 | -0.9390 |
| 0.3077 | 0.857301 | 1212.41 | -0.7273 | -155.189 | -1.1056 |
| 0.4081 | 0.885139 | 1256.91 | -0.7894 | -160.521 | -1.1311 |
| 0.5073 | 0.911588 | 1298.74 | -0.7801 | -153.068 | -1.0665 |
| 0.6075 | 0.937329 | 1338.94 | -0.7123 | -135.400 | -0.9338 |
| 0.7083 | 0.962434 | 1377.44 | -0.6081 | -109.494 | -0.7378 |
| 0.8076 | 0.986174 | 1413.61 | -0.4481 | -77.393 | -0.5119 |
| 0.9089 | 1.009495 | 1448.49 | -0.2393 | -38.964 | -0.2519 |
| 1 | 1.029583 | 1478.03 |  |  |  |

**Table S4.** (Continued)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | g.cm-3 | m.s-1 | cm3mol-1 | TPa-1 | K-1 |
| T = 318.15 K | | | | | |
| 0 | 0.759620 | 1034.55 |  |  |  |
| 0.1071 | 0.793428 | 1094.68 | -0.4073 | -95.327 | -0.6561 |
| 0.2020 | 0.822069 | 1143.27 | -0.6406 | -142.969 | -0.9598 |
| 0.3077 | 0.852652 | 1193.79 | -0.7878 | -168.874 | -1.1381 |
| 0.4081 | 0.880643 | 1238.94 | -0.8516 | -174.336 | -1.1725 |
| 0.5073 | 0.907225 | 1281.32 | -0.8394 | -165.946 | -1.1078 |
| 0.6075 | 0.933082 | 1322.04 | -0.7648 | -146.587 | -0.9751 |
| 0.7083 | 0.958284 | 1360.91 | -0.6501 | -118.312 | -0.7792 |
| 0.8076 | 0.982112 | 1397.44 | -0.4775 | -83.489 | -0.5404 |
| 0.9089 | 1.005514 | 1432.69 | -0.2539 | -41.967 | -0.2651 |
| 1 | 1.025674 | 1462.63 |  |  |  |
| T = 323.15 K | | | | | |
| 0 | 0.754150 | 1013.51 |  |  |  |
| 0.1071 | 0.788315 | 1074.56 | -0.4469 | -104.090 | -0.6823 |
| 0.2020 | 0.817140 | 1123.88 | -0.6929 | -155.676 | -0.9820 |
| 0.3077 | 0.847932 | 1175.15 | -0.8502 | -183.513 | -1.1725 |
| 0.4081 | 0.876090 | 1220.91 | -0.9166 | -189.082 | -1.2159 |
| 0.5073 | 0.902812 | 1263.90 | -0.9013 | -179.750 | -1.1511 |
| 0.6075 | 0.928792 | 1305.14 | -0.8196 | -158.556 | -1.0183 |
| 0.7083 | 0.954103 | 1344.39 | -0.6945 | -127.723 | -0.8223 |
| 0.8076 | 0.978020 | 1381.35 | -0.5082 | -90.003 | -0.5700 |
| 0.9089 | 1.001512 | 1417.01 | -0.2694 | -45.162 | -0.2789 |
| 1 | 1.021746 | 1447.28 |  |  |  |
| T = 328.15 K | | | | | |
| 0 | 0.748593 | 992.79 |  |  |  |
| 0.1071 | 0.783069 | 1054.58 | -0.4815 | -113.218 | -0.7089 |
| 0.2020 | 0.812129 | 1104.52 | -0.7464 | -169.018 | -1.0056 |
| 0.3077 | 0.843141 | 1156.54 | -0.9147 | -199.026 | -1.2088 |
| 0.4081 | 0.871476 | 1202.91 | -0.9840 | -204.757 | -1.2616 |
| 0.5073 | 0.898342 | 1246.28 | -0.9654 | -194.172 | -1.1965 |
| 0.6075 | 0.924458 | 1288.23 | -0.8767 | -171.250 | -1.0634 |
| 0.7083 | 0.949888 | 1327.93 | -0.7412 | -137.750 | -0.8670 |
| 0.8076 | 0.973905 | 1365.33 | -0.5410 | -96.937 | -0.6008 |
| 0.9089 | 0.997484 | 1401.36 | -0.2852 | -48.505 | -0.2933 |
| 1 | 1.017785 | 1431.92 |  |  |  |