

## Thermodynamic Properties at 298 K

| Substance                          | $\Delta H_f^\circ$<br>kJ/mol | $\Delta G_f^\circ$<br>kJ/mol | $S^\circ$<br>J/(mol·K) |
|------------------------------------|------------------------------|------------------------------|------------------------|
| Ag(s)                              | 0                            | 0                            | 42.6                   |
| Ag <sup>+</sup> (aq)               | 105.8                        | 77.107                       | 73.4                   |
| Ag <sub>2</sub> O(s)               | −31.1                        | −11.2                        | 121.3                  |
| Ag <sub>2</sub> S(s)               | −32.6                        | −40.7                        | 144.0                  |
| AgBr(s)                            | −100.4                       | −96.9                        | 107.1                  |
| AgCl(s)                            | −127.0                       | −109.8                       | 96.3                   |
| AgI(s)                             | −61.8                        | −66.2                        | 115.5                  |
| AgNO <sub>3</sub> (s)              | −124.4                       | −33.4                        | 140.9                  |
| Al(s)                              | 0                            | 0                            | 28.3                   |
| Al <sub>2</sub> O <sub>3</sub> (s) | −1675.7                      | −1582.3                      | 50.9                   |
| AlCl <sub>3</sub> (s)              | −704.2                       | −628.8                       | 109.3                  |
| Ar(g)                              | 0                            | 0                            | 154.843                |
| As(s)                              | 0                            | 0                            | 35.1                   |
| As <sub>2</sub> O <sub>5</sub> (s) | −924.9                       | −782.3                       | 105.4                  |
| AsCl <sub>3</sub> (l)              | −305.0                       | −259.4                       | 216.3                  |
| Au(s)                              | 0                            | 0                            | 47.4                   |
| Ba(s)                              | 0                            | 0                            | 62.5                   |
| BaCl <sub>2</sub> (s)              | −855.0                       | −806.7                       | 123.7                  |
| BaCO <sub>3</sub> (s)              | −1213.0                      | −1134.4                      | 112.1                  |
| BaO(s)                             | −548.0                       | −520.3                       | 72.1                   |
| BaSO <sub>4</sub> (s)              | −1473.2                      | −1362.2                      | 132.2                  |
| B(s)                               | 0                            | 0                            | 5.9                    |
| B <sub>2</sub> O <sub>3</sub> (s)  | −1273.5                      | −1194.3                      | 54.0                   |
| H <sub>3</sub> BO <sub>3</sub> (s) | −1094.3                      | −968.9                       | 90.0                   |
| BCl <sub>3</sub> (g)               | −403.8                       | −388.7                       | 290.1                  |
| BCl <sub>3</sub> (l)               | −427.2                       | −387.4                       | 206.3                  |
| Be(OH) <sub>2</sub> (s)            | −902.5                       | −815.0                       | 45.5                   |
| Be(s)                              | 0                            | 0                            | 9.5                    |
| BeO(s)                             | −609.4                       | −580.1                       | 13.8                   |
| Br(g)                              | 111.9                        | 82.4                         | 175.0                  |
| Br <sub>2</sub> (g)                | 30.9                         | 3.1                          | 245.5                  |
| Br <sub>2</sub> (l)                | 0                            | 0                            | 152.2                  |
| Br <sup>−</sup> (aq)               | −121.4                       | −104.0                       | 82.4                   |
| BrO <sup>−</sup> (aq)              | −94.1                        | −33.4                        | 42                     |
| BrF <sub>3</sub> (g)               | −255.6                       | −229.4                       | 292.5                  |

|   |         |         |       |
|---|---------|---------|-------|
| C(diamond)  | 1.9     | 2.9     | 2.4   |
| C(g)  | 716.7   | 671.3   | 158.1 |
| C(graphite)   | 0       | 0       | 5.7   |
| CCl <sub>4</sub> (l)                                | -139    | -68.6   | 214.4 |
| CH <sub>4</sub> (g)                                 | -74.6   | -50.5   | 186.3 |
| C <sub>2</sub> H <sub>2</sub> (g)                   | 227.4   | 209.9   | 200.9 |
| C <sub>2</sub> H <sub>4</sub> (g)                   | 52.4    | 68.4    | 219.3 |
| C <sub>2</sub> H <sub>5</sub> OH(g)                 | -234.8  | -167.9  | 281.6 |
| C <sub>2</sub> H <sub>5</sub> OH(l)                 | -277.6  | -174.8  | 160.7 |
| C <sub>2</sub> H <sub>6</sub> (g)                   | -84.0   | -32.0   | 229.2 |
| C <sub>3</sub> H <sub>6</sub> (g) (propene)         | 20.0    | 74.62   | 226.9 |
| C <sub>3</sub> H <sub>8</sub> (g)                   | -103.8  | -23.4   | 270.3 |
| C <sub>6</sub> H <sub>6</sub> (l)                   | 49.1    | 124.5   | 173.4 |
| Ca(g)   | 177.8   | 144     | 154.9 |
| Ca(OH) <sub>2</sub> (s)                             | -985.2  | -897.5  | 83.4  |
| Ca(s)   | 0       | 0       | 41.6  |
| Ca <sup>2+</sup> (aq)                               | -543.0  | -553.6  | -56.2 |
| Ca <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> (s) | -4120.8 | -3884.7 | 236.0 |
| CaC <sub>2</sub> (s)                                | -59.8   | -64.9   | 70.0  |
| CaCl <sub>2</sub> (s)                               | -795.4  | -748.8  | 108.4 |
| CaCO <sub>3</sub> (s)                               | -1207.6 | -1129.1 | 91.7  |
| CaF <sub>2</sub> (s)                                | -1228.0 | -1175.6 | 68.5  |
| CaH <sub>2</sub> (s)                                | -181.5  | -142.5  | 41.4  |
| CaO(s)  | -634.9  | -603.3  | 38.1  |
| CaS(s)  | -482.4  | -477.4  | 56.5  |
| CaSO <sub>4</sub> (s)                               | -1434.5 | -1322.0 | 106.5 |
| CH <sub>3</sub> OH(g)                               | -201.0  | -162.3  | 239.9 |
| CH <sub>3</sub> OH(l)                               | -239.2  | -166.6  | 126.8 |
| CH <sub>4</sub> (g)                                 | -74.6   | -50.5   | 186.3 |
| CH <sub>3</sub> CHO(g)                              | -166.2  | -127.6  | 263.8 |
| CH <sub>3</sub> CO <sub>2</sub> H(l)                | -484.3  | -389.9  | 159.8 |
| CH <sub>3</sub> CH <sub>2</sub> OH(l)               | -277.6  | -174.8  | 160.7 |
| CH <sub>3</sub> CN(l)                               | 40.6    | 86.5    | 149.6 |
| CHCl <sub>3</sub> (g)                               | -102.7  | 6.0     | 295.7 |
| CHCl <sub>3</sub> (l)                               | -134.1  | -73.7   | 201.7 |
| Cd(s)   | 0       | 0       | 51.8  |
| CdO(s)  | -258.4  | -228.7  | 54.8  |
| CdCl <sub>2</sub> (s)                               | -391.5  | -343.9  | 115.3 |
| Cl <sub>2</sub> (g)                                 | 0       | 0       | 223.1 |
| Cl(g)   | 121.3   | 105.3   | 165.2 |

|                                    |         |         |       |
|------------------------------------|---------|---------|-------|
| Cl <sup>-</sup> (aq)               | -167.1  | -131.0  | 56.60 |
| ClO <sup>-</sup> (aq)              | -107.1  | -36.8   | 42    |
| ClO <sub>2</sub> <sup>-</sup> (aq) | -67     | 17      | 101   |
| ClO <sub>3</sub> <sup>-</sup> (aq) | -104    | -3      | 162   |
| ClO <sub>4</sub> <sup>-</sup> (aq) | -128.1  | -8.52   | 184.0 |
| ClO(g)                             | 101.8   | 98.1    | 226.6 |
| ClO <sub>2</sub> (g)               | 102.5   | 120.5   | 256.8 |
| CO(g)                              | -110.5  | -137.2  | 197.7 |
| CO <sub>2</sub> (g)                | -393.5  | -394.4  | 213.8 |
| COCl <sub>2</sub> (g)              | -219.1  | -204.9  | 283.5 |
| Cr(s)                              | 0       | 0       | 23.8  |
| Cr <sub>2</sub> O <sub>3</sub> (s) | -1139.7 | -1058.1 | 81.2  |
| CrCl <sub>3</sub> (s)              | -556.5  | -486.1  | 123.1 |
| Co(s)                              | 0       | 0       | 30.0  |
| CoO(s)                             | -237.9  | -214.2  | 53.0  |
| CoCl <sub>2</sub> (s)              | -312.5  | -269.8  | 109.2 |
| Cs(s)                              | 0       | 0       | 85.2  |
| CS <sub>2</sub> (g)                | 116.7   | 67.1    | 237.8 |
| CS <sub>2</sub> (l)                | 89.0    | 64.6    | 151.3 |
| CsCl(s)                            | -443.0  | -414.5  | 101.2 |
| Cu(s)                              | 0       | 0       | 33.2  |
| CuO(s)                             | -157.3  | -129.7  | 42.6  |
| CuS(s)                             | -53.1   | -53.6   | 66.5  |
| CuCl <sub>2</sub> (s)              | -220.1  | -175.7  | 108.1 |
| CuCl(s)                            | -137.2  | -119.9  | 86.2  |
| CuBr(s)                            | -104.6  | -100.8  | 96.1  |
| CuI(s)                             | -67.8   | -69.5   | 96.7  |
| CuSO <sub>4</sub> (s)              | -771.4  | -662.2  | 109.2 |
| F(g)                               | 79.4    | 62.3    | 158.8 |
| F <sub>2</sub> (g)                 | 0       | 0       | 202.8 |
| F(g)                               | -335.4  | -278.79 | -13.8 |
| Fe(s)                              | 0       | 0       | 27.3  |
| Fe <sub>2</sub> O <sub>3</sub> (s) | -824.2  | -742.2  | 87.4  |
| FeO(s)                             | -272.0  | -251.4  | 60.8  |
| Fe <sub>3</sub> O <sub>4</sub> (s) | -1118.4 | -1015.4 | 146.4 |
| Fe(OH) <sub>3</sub> (s)            | -823.0  | -696.5  | 106.7 |
| FeCl <sub>2</sub> (s)              | -341.8  | -302.3  | 118.0 |
| FeCl <sub>3</sub> (s)              | -399.5  | -334.0  | 142   |
| FeSO <sub>4</sub> (s)              | -928.4  | -820.8  | 107.5 |
| FeS(s)                             | -100.0  | -100.4  | 60.3  |

|                                     |          |          |         |
|-------------------------------------|----------|----------|---------|
| FeS <sub>2</sub> (s)                | -178.2   | -166.9   | 52.9    |
| Ga(s)                               | 0        | 0        | 40.8    |
| Ga <sub>2</sub> O <sub>3</sub> (s)  | -1089.1  | -998.3   | 85.0    |
| Ge(s)                               | 0        | 0        | 31.1    |
| GeO(s)                              | -261.9   | -237.2   | 50.0    |
| GeCl <sub>4</sub> (g)               | -495.8   | -457.3   | 347.7   |
| GeO <sub>2</sub> (s)                | -580.0   | -521.4   | 39.7    |
| H <sup>+</sup> (aq)                 | 0        | 0        | 0       |
| H <sub>2</sub> (g)                  | 0        | 0        | 130.7   |
| H <sub>2</sub> O(g)                 | -241.8   | -228.6   | 188.8   |
| H <sub>2</sub> O(l)                 | -285.8   | -237.1   | 70.0    |
| H <sub>3</sub> O <sup>+</sup> (aq)  | -285.83  | -237.1   | 69.95   |
| H <sub>2</sub> O <sub>2</sub> (l)   | -187.8   | -120.4   | 109.6   |
| H <sub>2</sub> S(g)                 | -20.6    | -33.4    | 205.8   |
| H <sub>2</sub> SO <sub>4</sub> (l)  | -814     | -690.0   | 156.9   |
| H <sub>3</sub> PO <sub>4</sub> (l)  | -1271.7  | -1123.6  | 150.8   |
| H <sub>3</sub> PO <sub>4</sub> (aq) | -1288.34 | -1142.54 | 158.2   |
| HBr(g)                              | -36.3    | -53.4    | 198.7   |
| HCl(g)                              | -92.3    | -95.3    | 186.9   |
| HCN(g)                              | 135.1    | 124.7    | 201.8   |
| HF(g)                               | -273.3   | -275.4   | 173.8   |
| HNO <sub>3</sub> (l)                | -174.1   | -80.7    | 155.6   |
| HNO <sub>3</sub> (g)                | -133.9   | -73.5    | 266.9   |
| H <sub>2</sub> Se(g)                | 29.7     | 15.9     | 219.0   |
| Hg(l)                               | 0        | 0        | 75.9    |
| Hg(g)                               | 61.4     | 31.8     | 175.0   |
| HgO(s)                              | -90.8    | -58.5    | 70.3    |
| HgS(s)                              | -58.2    | -50.6    | 82.4    |
| HgCl <sub>2</sub> (s)               | -224.3   | -178.6   | 146.0   |
| Hg <sub>2</sub> Cl <sub>2</sub> (s) | -265.4   | -210.7   | 191.6   |
| HI(g)                               | 26.5     | 1.7      | 206.6   |
| He(g)                               | 0        | 0        | 126.153 |
| I <sub>2</sub> (g)                  | 62.4     | 19.3     | 260.7   |
| I <sub>2</sub> (s)                  | 0        | 0        | 116.1   |
| I <sup>-</sup> (aq)                 | -56.78   | -51.57   | 106.5   |
| K(s)                                | 0        | 0        | 64.7    |
| K <sup>+</sup> (aq)                 | -252.1   | -283.7   | 101.2   |
| KO <sub>2</sub> (s)                 | -284.9   | -239.4   | 116.7   |
| KOH(s)                              | -424.6   | -378.9   | 78.9    |

|                                       |          |          |         |
|---------------------------------------|----------|----------|---------|
| KBr(s)                                | −393.8   | −380.7   | 95.9    |
| KCl(s)                                | −436.5   | −408.5   | 82.6    |
| KClO <sub>3</sub> (s)                 | −397.7   | −296.3   | 143.1   |
| KF(s)                                 | −567.3   | −537.8   | 66.6    |
| KI(s)                                 | −327.9   | −324.9   | 106.3   |
| Kr(g)                                 | 0        | 0        | 164.085 |
| Li(s)                                 | 0        | 0        | 29.1    |
| Li <sup>+</sup> (aq)                  | −278.47  | −293.31  | 12.2    |
| Li <sub>2</sub> O(s)                  | −597.9   | −561.2   | 37.6    |
| LiOH(s)                               | −484.9   | −439.0   | 42.8    |
| LiCl(s)                               | −408.6   | −384.4   | 59.3    |
| Mg(s)                                 | 0        | 0        | 32.7    |
| Mg <sup>2+</sup> (aq)                 | −467.0   | −454.8   | −137    |
| Mg(OH) <sub>2</sub> (s)               | −924.5   | −833.5   | 63.2    |
| MgCl <sub>2</sub> (s)                 | −641.3   | −591.8   | 89.6    |
| MgF <sub>2</sub> (s)                  | −1124.2  | −1071.1  | 57.2    |
| MgCO <sub>3</sub> (s)                 | −1095.8  | −1012.1  | 65.7    |
| MgO(s)                                | −601.6   | −569.3   | 27.0    |
| MgSO <sub>4</sub> (s)                 | −1284.9  | −1170.6  | 91.6    |
| Mn(s)                                 | 0        | 0        | 32.0    |
| MnO(s)                                | −385.2   | −362.9   | 59.7    |
| MnO <sub>2</sub> (s)                  | −520.0   | −465.1   | 53.1    |
| MnCl <sub>2</sub> (s)                 | −481.3   | −440.5   | 118.2   |
| MnCO <sub>3</sub> (s)                 | −894.1   | −816.7   | 85.8    |
| MnSO <sub>4</sub> (s)                 | −1065.25 | −957.36  | 112.1   |
| N <sub>2</sub> (g)                    | 0        | 0        | 191.6   |
| N <sub>2</sub> H <sub>4</sub> (l)     | 50.6     | 149.3    | 121.2   |
| N <sub>2</sub> O(g)                   | 81.6     | 103.7    | 220.0   |
| N <sub>2</sub> O <sub>4</sub> (g)     | 11.1     | 99.8     | 304.4   |
| N <sub>2</sub> O <sub>5</sub> (g)     | 13.3     | 117.1    | 355.7   |
| NH <sub>3</sub> (g)                   | −45.9    | −16.4    | 192.8   |
| NH <sub>3</sub> (aq)                  | −80.29   | −26.50   | 111.3   |
| NH <sub>4</sub> <sup>+</sup> (aq)     | −133.3   | −79.31   | 111.2   |
| NH <sub>4</sub> Cl(s)                 | −314.4   | −202.9   | 94.6    |
| NH <sub>4</sub> NO <sub>3</sub> (s)   | −365.6   | −183.9   | 151.1   |
| (NH <sub>2</sub> ) <sub>2</sub> CO(s) | −333.1   | −198     | 105     |
| Na(s)                                 | 0        | 0        | 51.3    |
| Na <sup>+</sup> (aq)                  | −240.3   | −261.905 | 58.5    |
| Na <sub>2</sub> CO <sub>3</sub> (s)   | −1130.7  | −1044.4  | 135.0   |

|                                    |         |          |         |
|------------------------------------|---------|----------|---------|
| NaCl(s)                            | -411.2  | -384.1   | 72.1    |
| NaF(s)                             | -576.6  | -546.3   | 51.1    |
| NaBr(s)                            | -361.1  | -349.0   | 86.8    |
| NaI(s)                             | -287.8  | -286.1   | 98.5    |
| NaNO <sub>3</sub> (s)              | -467.9  | -367.0   | 116.5   |
| NaOH(s)                            | -425.8  | -379.7   | 64.4    |
| Na <sub>2</sub> O(s)               | -414.2  | -375.5   | 75.1    |
| Ne(g)                              | 0       | 0        | 146.328 |
| Ni(s)                              | 0       | 0        | 29.9    |
| NiO(s)                             | -239.7  | -211.7   | 37.99   |
| NiCl <sub>2</sub> (s)              | -305.3  | -259.0   | 97.7    |
| NO(g)                              | 91.3    | 87.6     | 210.8   |
| NO <sub>2</sub> (g)                | 33.2    | 51.3     | 240.1   |
| O(g)                               | 249.2   | 231.7    | 161.1   |
| O <sub>2</sub> (g)                 | 0       | 0        | 205.2   |
| O <sub>3</sub> (g)                 | 142.7   | 163.2    | 238.9   |
| OH <sup>-</sup> (aq)               | -230.0  | -157.244 | -10.9   |
| OPb(s) (massicot)                  | -217.3  | -187.9   | 68.7    |
| O <sub>2</sub> Te(s)               | -322.6  | -270.3   | 79.5    |
| OTl <sub>2</sub> (s)               | -178.7  | -147.3   | 126.0   |
| P(s, white)                        | 0       | 0        | 41.1    |
| P(s, red)                          | -17.6   | -12.1    | 22.8    |
| P <sub>4</sub> (g)                 | 58.9    | 24.4     | 280.0   |
| PH <sub>3</sub> (g)                | 5.4     | 13.4     | 210.2   |
| P <sub>4</sub> O <sub>10</sub> (s) | -2984.0 | -2697.7  | 228.86  |
| PCl <sub>3</sub> (g)               | -287.0  | -267.8   | 311.8   |
| PCl <sub>5</sub> (g)               | -374.9  | -305.0   | 364.6   |
| Pb(s)                              | 0       | 0        | 64.8    |
| PbCl <sub>2</sub> (s)              | -359.4  | -314.1   | 136.0   |
| PbO(s)                             | -217.3  | -187.9   | 68.7    |
| PbO <sub>2</sub> (s)               | -277.4  | -217.3   | 68.6    |
| PbS(s)                             | -100.4  | -98.7    | 91.2    |
| Sb(s)                              | 0       | 0        | 45.7    |
| Sb <sub>4</sub> O <sub>6</sub> (s) | -1417.1 | -1253.0  | 246.0   |
| Se(s)                              | 0       | 0        | 42.7    |
| Si(s)                              | 0       | 0        | 18.8    |
| SiH <sub>4</sub> (g)               | 34.3    | 56.9     | 204.6   |
| SiO <sub>2</sub> (s)               | -910.7  | -856.3   | 41.5    |
| SiCl <sub>4</sub> (l)              | -687.0  | -619.8   | 239.7   |

|                                    |         |         |         |
|------------------------------------|---------|---------|---------|
| SiC(s)                             | -65.3   | -62.8   | 16.6    |
| Sn(s, white)                       | 0       | 0       | 51.2    |
| Sn(s, gray)                        | -2.1    | 0.13    | 44.1    |
| SnO(s)                             | -280.7  | -251.9  | 57.2    |
| SnO <sub>2</sub> (s)               | -577.6  | -515.8  | 49.0    |
| SnCl <sub>4</sub> (l)              | -511.3  | -440.1  | 258.6   |
| Sr(s)                              | 0       | 0       | 55.0    |
| SrO(s)                             | -592.0  | -561.9  | 54.4    |
| SrCl <sub>2</sub> (s)              | -828.9  | -781.1  | 114.9   |
| S <sub>8</sub> (s)                 | 0       | 0       | 31.80   |
| S <sub>8</sub> (g)                 | 102.30  | 49.63   | 430.23  |
| SO <sub>2</sub> (g)                | -296.8  | -300.1  | 248.2   |
| SO <sub>3</sub> (g)                | -395.7  | -371.1  | 256.8   |
| SO <sub>4</sub> <sup>2-</sup> (aq) | -909.3  | -744.53 | 18.5    |
| SF <sub>6</sub> (g)                | -1220.5 | -1116.5 | 291.5   |
| Te(s)                              | 0       | 0       | 49.7    |
| TeO <sub>2</sub> (s)               | -322.6  | -270.3  | 79.5    |
| Ti(s)                              | 0       | 0       | 30.7    |
| TiCl <sub>4</sub> (l)              | -804.2  | -737.2  | 252.3   |
| TiCl <sub>4</sub> (g)              | -763.2  | -726.3  | 353.2   |
| TiO <sub>2</sub> (s)               | -944.0  | -888.8  | 50.6    |
| Tl(s)                              | 0       | 0       | 64.2    |
| U(s)                               | 0       | 0       | 50.2    |
| UO <sub>2</sub> (s)                | -1085.0 | -1031.8 | 77.0    |
| UF <sub>6</sub> (g)                | -2147.4 | -2063.7 | 377.9   |
| Xe(g)                              | 0       | 0       | 169.685 |
| XeF <sub>4</sub> (s)               | -261.5  | -138    | 316     |
| Zn(s)                              | 0       | 0       | 41.63   |
| ZnO(s)                             | -350.5  | -320.5  | 43.7    |
| ZnCl <sub>2</sub> (s)              | -415.1  | -369.4  | 111.5   |
| ZnS(s)                             | -206.0  | -201.3  | 57.7    |

## Organic Compounds

| Name                                | Formula                             | $\Delta H_f^\circ$<br>kJ/mol |
|-------------------------------------|-------------------------------------|------------------------------|
| Methane                             | CH <sub>4</sub> (g)                 | -74.6                        |
| Ethane                              | C <sub>2</sub> H <sub>6</sub> (g)   | -84.0                        |
| n-Propane                           | C <sub>3</sub> H <sub>8</sub> (g)   | -103.8                       |
| n-Butane                            | C <sub>4</sub> H <sub>10</sub> (g)  | -125.5                       |
| cyclopentane                        | C <sub>5</sub> H <sub>10</sub> (l)  | -105.1                       |
| n-Pentane                           | C <sub>5</sub> H <sub>12</sub> (g)  | -146.9                       |
| benzene                             | C <sub>6</sub> H <sub>6</sub> (l)   | 49.1                         |
| cyclohexane                         | C <sub>6</sub> H <sub>12</sub> (l)  | -156.4                       |
| n-Hexane                            | C <sub>6</sub> H <sub>14</sub> (g)  | -166.9                       |
| toluene                             | C <sub>7</sub> H <sub>8</sub> (l)   | 12.4                         |
| n-Heptane                           | C <sub>7</sub> H <sub>16</sub> (g)  | -187.6                       |
| n-Octane                            | C <sub>8</sub> H <sub>18</sub> (g)  | -208.5                       |
| n-Nonane                            | C <sub>9</sub> H <sub>20</sub> (g)  | -228.2                       |
| n-Decane                            | C <sub>10</sub> H <sub>22</sub> (g) | -249.4                       |
| 2-Methylpropane (Isobutane)         | C <sub>4</sub> H <sub>10</sub> (g)  | -134.3                       |
| 2,2-Dimethylpropane<br>(Neopentane) | C <sub>5</sub> H <sub>12</sub> (g)  | -167.8                       |
| 2-Methylbutane (Isopentane)         | C <sub>5</sub> H <sub>12</sub> (g)  | -154.4                       |
| 2,2-Dimethylbutane                  | C <sub>6</sub> H <sub>14</sub> (g)  | -186.2                       |
| 2-Methylpentane (Isohexane)         | C <sub>6</sub> H <sub>14</sub> (g)  | -174.9                       |
| 3-Methylpentane                     | C <sub>6</sub> H <sub>14</sub> (g)  | -172.0                       |
| 2,3-Dimethylbutane                  | C <sub>6</sub> H <sub>14</sub> (g)  | -177.8                       |
| 2,2,3-Trimethylbutane               | C <sub>7</sub> H <sub>16</sub> (g)  | -205.0                       |
| 3-ethylpentane                      | C <sub>7</sub> H <sub>16</sub> (g)  | -189.5                       |
| 2-Methylhexane                      | C <sub>7</sub> H <sub>16</sub> (g)  | -194.6                       |
| 3-Methylhexane                      | C <sub>7</sub> H <sub>16</sub> (g)  | -191.2                       |
| 2,2-Dimethylpentane                 | C <sub>7</sub> H <sub>16</sub> (g)  | -205.9                       |
| 3,3-Dimethylpentane                 | C <sub>7</sub> H <sub>16</sub> (g)  | -201.3                       |
| 2,3-Dimethylpentane                 | C <sub>7</sub> H <sub>16</sub> (g)  | -197.9                       |
| 2,4-Dimethylpentane                 | C <sub>7</sub> H <sub>16</sub> (g)  | -201.7                       |
| 2-Methylheptane                     | C <sub>8</sub> H <sub>18</sub> (g)  | -215.5                       |
| 2,2-Dimethylhexane                  | C <sub>8</sub> H <sub>18</sub> (g)  | -224.7                       |



|                                       |                                    |        |
|---------------------------------------|------------------------------------|--------|
| 2,3-Dimethylhexane                    | C <sub>8</sub> H <sub>18</sub> (g) | -230.5 |
| 2,4-Dimethylhexane                    | C <sub>8</sub> H <sub>18</sub> (g) | -219.2 |
| 2,5-Dimethylhexane                    | C <sub>8</sub> H <sub>18</sub> (g) | -222.6 |
| 3,3-Dimethylhexane                    | C <sub>8</sub> H <sub>18</sub> (g) | -220.1 |
| 3,4-Dimethylhexane                    | C <sub>8</sub> H <sub>18</sub> (g) | -213.0 |
| 3-Ethyl-2-Methylpentane               | C <sub>8</sub> H <sub>18</sub> (g) | -210.9 |
| 3-Ethyl-3-Methylpentane               | C <sub>8</sub> H <sub>18</sub> (g) | -215.1 |
| 2,2,3-Trimethylpentane                | C <sub>8</sub> H <sub>18</sub> (g) | -220.1 |
| 2,2,4-Trimethylpentane<br>(Isooctane) | C <sub>8</sub> H <sub>18</sub> (g) | -223.8 |
| 2,3,3-Trimethylpentane                | C <sub>8</sub> H <sub>18</sub> (g) | -216.3 |
| 2,3,4-Trimethylpentane                | C <sub>8</sub> H <sub>18</sub> (g) | -217.1 |
| 2,2,3,3-Tetramethylbutane             | C <sub>8</sub> H <sub>18</sub> (g) | -225.5 |
| 3,3-Diethylpentane                    | C <sub>9</sub> H <sub>20</sub> (g) | -233.0 |
| 2,2,3,3-Tetramethylpentane            | C <sub>9</sub> H <sub>20</sub> (g) | -237.2 |
| 2,2,3,4-Tetramethylpentane            | C <sub>9</sub> H <sub>20</sub> (g) | -236.8 |
| 2,2,4,4-Tetramethylpentane            | C <sub>9</sub> H <sub>20</sub> (g) | -241.8 |
| 2,3,3,4-Tetramethylpentane            | C <sub>9</sub> H <sub>20</sub> (g) | -236.0 |

Reference: *CRC Handbook of Chemistry and Physics*, 2007