

# STANDARD THERMODYNAMIC PROPERTIES OF CHEMICAL SUBSTANCES

This table gives the standard state chemical thermodynamic properties of about 2400 individual substances in the crystalline, liquid, and gaseous states. Substances are listed by molecular formula in a modified Hill order; all compounds not containing carbon appear first, followed by those that contain carbon. The properties tabulated are:

$\Delta_f H^\circ$	Standard molar enthalpy (heat) of formation at 298.15 K in kJ/mol
$\Delta_f G^\circ$	Standard molar Gibbs energy of formation at 298.15 K in kJ/mol
$S^\circ$	Standard molar entropy at 298.15 K in J/mol K
$C_p$	Molar heat capacity at constant pressure at 298.15 K in J/mol K

The standard state pressure is 100 kPa (1 bar). The standard states are defined for different phases by:

- The standard state of a pure gaseous substance is that of the substance as a (hypothetical) ideal gas at the standard state pressure.
- The standard state of a pure liquid substance is that of the liquid under the standard state pressure.
- The standard state of a pure crystalline substance is that of the crystalline substance under the standard state pressure.

An entry of 0.0 for  $\Delta_f H^\circ$  for an element indicates the reference state of that element. See References 1 and 2 for further information on reference states. A blank means no value is available.

We are indebted to M.V. Korobov for providing data on fullerene compounds.

## REFERENCES

1. Cox, J.D., Wagman, D.D., and Medvedev, V.A., *CODATA Key Values for Thermodynamics*, Hemisphere Publishing Corp., New York, 1989.
2. Wagman, D.D., Evans, W.H., Parker, V.B., Schumm, R.H., Halow, I., Bailey, S.M., Churney, K.L., and Nuttall, R.L., *The NBS Tables of Chemical and Thermodynamic Properties*, *J. Phys. Chem. Ref. Data*, Vol. 11, Suppl. 2, 1982.
3. Chase M.W., Davies, C.A., Downey, J.R., Frurip, D.J., McDonald, R.A., and Syverud, A.N., *JANAF Thermochemical Tables, Third Edition*, *J. Phys. Chem. Ref. Data*, Vol. 14, Suppl. 1, 1985.
4. Daubert, T.E., Danner, R.P., Sibul, H.M., and Stebbins, C.C., *Physical and Thermodynamic Properties of Pure Compounds: Data Compilation*, extant 1994 (core with 4 supplements), Taylor & Francis, Bristol, PA.
5. Pedley, J.B., Naylor, R.D., and Kirby, S.P., *Thermochemical Data of Organic Compounds, Second Edition*, Chapman & Hall, London, 1986.
6. Pedley, J.B., *Thermochemical Data and Structures of Organic Compounds*, Thermodynamic Research Center, Texas A & M University, College Station, TX, 1994.
7. Dolmalski, E.S., Evans, W.H., Hearing E.D., *Heat Capacities and Entropies of Organic Compounds in the Condensed Phase*, *J. Phys. Chem. Ref. Data*, Vol. 13, Suppl. 1, 1984; Vol. 19, No. 4, 881—1047, 1990.
8. Gurvich, L.V., Veyts, I.V., and Alcock, C.B., *Thermodynamic Properties of Individual Substances, Fourth Edition*, Vol. 1, Hemisphere Publishing Corp., New York, 1989.
9. Gurvich, L.V., Veyts, I.V., and Alcock, C.B., *Thermodynamic Properties of Individual Substances, Fourth Edition*, Vol. 3, CRC Press, Boca Raton, FL, 1994.

Molecular formula	Name	$\Delta_f H^\circ/\text{kJ mol}^{-1}$			$\Delta_f G^\circ/\text{kJ mol}^{-1}$			$S^\circ/\text{J mol}^{-1} \text{K}^{-1}$			$C_p/\text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
Ac	Actinium	0.0		406.0			366.0	56.5		188.1	27.2		20.8
Ag	Silver	0.0		284.9			246.0	42.6		173.0	25.4		20.8
AgBr	Silver(I) bromide	-100.4			-96.9			107.1			52.4		
AgBrO <sub>3</sub>	Silver(I) bromate	-10.5			71.3			151.9					
AgCl	Silver(I) chloride	-127.0			-109.8			96.3			50.8		
AgClO <sub>3</sub>	Silver(I) chlorate	-30.3			64.5			142.0					
AgClO <sub>4</sub>	Silver(I) perchlorate	-31.1											
AgF	Silver(I) fluoride	-204.6											
AgF <sub>2</sub>	Silver(II) fluoride	-360.0											
AgI	Silver(I) iodide	-61.8			-66.2			115.5			56.8		
AgIO <sub>3</sub>	Silver(I) iodate	-171.1			-93.7			149.4			102.9		
AgNO <sub>3</sub>	Silver(I) nitrate	-124.4			-33.4			140.9			93.1		
Ag <sub>2</sub>	Disilver			410.0			358.8			257.1			37.0
Ag <sub>2</sub> CrO <sub>4</sub>	Silver(I) chromate	-731.7			-641.8			217.6			142.3		
Ag <sub>2</sub> O	Silver(I) oxide	-31.1			-11.2			121.3			65.9		
Ag <sub>2</sub> O <sub>2</sub>	Silver(II) oxide	-24.3			27.6			117.0			88.0		
Ag <sub>2</sub> O <sub>3</sub>	Silver(III) oxide	33.9			121.4			100.0					
Ag <sub>2</sub> O <sub>4</sub> S	Silver(I) sulfate	-715.9			-618.4			200.4			131.4		
Ag <sub>2</sub> S	Silver(I) sulfide (argentite)	-32.6			-40.7			144.0			76.5		
Al	Aluminum	0.0		330.0			289.4	28.3		164.6	24.4		21.4
AlB <sub>3</sub> H <sub>12</sub>	Aluminum borohydride		-16.3	13.0		145.0	147.0		289.1	379.2		194.6	
AlBr	Aluminum monobromide			-4.0			-42.0			239.5			35.6
AlBr <sub>3</sub>	Aluminum tribromide	-527.2		-425.1				180.2			100.6		
AlCl	Aluminum monochloride			-47.7			-74.1			228.1			35.0
AlCl <sub>2</sub>	Aluminum dichloride			-331.0									
AlCl <sub>3</sub>	Aluminum trichloride	-704.2		-583.2	-628.8			109.3			91.1		
AlF	Aluminum monofluoride			-258.2			-283.7			215.0			31.9
AlF <sub>3</sub>	Aluminum trifluoride	-1510.4		-1204.6	-1431.1		-1188.2	66.5		277.1	75.1		62.6
AlF <sub>4</sub> Na	Sodium tetrafluoroaluminate			-1869.0			-1827.5			345.7			105.9
AlH	Aluminum hydride			259.2			231.2			187.9			29.4
AlH <sub>3</sub>	Aluminum hydride	-46.0						30.0			40.2		
AlH <sub>4</sub> K	Potassium aluminum hydride	-183.7											
AlH <sub>4</sub> Li	Lithium aluminum hydride	-116.3			-44.7			78.7			83.2		
AlH <sub>4</sub> Na	Sodium aluminum hydride	-15.5											
AlI	Aluminum monoiodide			65.5									36.0
AlI <sub>3</sub>	Aluminum triiodide	-313.8		-207.5	-300.8			159.0			98.7		
AlN	Aluminum nitride	-318.0			-287.0			20.2			30.1		
AlO	Aluminum monoxide			91.2			65.3			218.4			30.9
AlO <sub>4</sub> P	Aluminum phosphate	-1733.8			-1617.9			90.8			93.2		
AlP	Aluminum phosphide	-166.5											
AlS	Aluminum monosulfide			200.9			150.1			230.6			33.4
Al <sub>2</sub>	Dialuminum			485.9			433.3			233.2			36.4
Al <sub>2</sub> Br <sub>6</sub>	Aluminum hexabromide			-970.7									
Al <sub>2</sub> Cl <sub>6</sub>	Aluminum hexachloride			-1290.8			-1220.4			490.0			

Molecular formula	Name	$\Delta_f H^\circ/\text{kJ mol}^{-1}$			$\Delta_f G^\circ/\text{kJ mol}^{-1}$			$S^\circ/\text{J mol}^{-1} \text{K}^{-1}$			$C_p/\text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
Al <sub>2</sub> F <sub>6</sub>	Aluminum hexafluoride			-2628.0									
Al <sub>2</sub> I <sub>6</sub>	Aluminum hexaiodide			-516.7									
Al <sub>2</sub> O	Aluminum oxide (Al <sub>2</sub> O)			-130.0			-159.0			259.4			45.7
Al <sub>2</sub> O <sub>3</sub>	Aluminum oxide (corundum)	-1675.7			-1582.3			50.9			79.0		
Al <sub>2</sub> S <sub>3</sub>	Aluminum sulfide	-724.0						116.9			105.1		
Am	Americium	0.0											
Ar	Argon			0.0						154.8			20.8
As	Arsenic (gray)	0.0		302.5			261.0	35.1		174.2	24.6		20.8
As	Arsenic (yellow)	14.6											
AsBr <sub>3</sub>	Arsenic(III) bromide	-197.5		-130.0			-159.0			363.9			79.2
AsCl <sub>3</sub>	Arsenic(III) chloride		-305.0	-261.5			-259.4		216.3	327.2			75.7
AsF <sub>3</sub>	Arsenic(III) fluoride		-821.3	-785.8			-774.2		181.2	289.1		126.6	65.6
AsGa	Gallium arsenide	-71.0			-67.8			64.2			46.2		
AsH <sub>3</sub>	Arsine			66.4			68.9			222.8			38.1
AsH <sub>3</sub> O <sub>4</sub>	Arsenic acid	-906.3											
AsI <sub>3</sub>	Arsenic(III) iodide	-58.2					-59.4	213.1		388.3	105.8		80.6
AsIn	Indium arsenide	-58.6					-53.6	75.7			47.8		
AsO	Arsenic monoxide			70.0									
As <sub>2</sub>	Diarsenic			222.2			171.9			239.4			35.0
As <sub>2</sub> O <sub>5</sub>	Arsenic(V) oxide	-924.9					-782.3	105.4			116.5		
As <sub>2</sub> S <sub>3</sub>	Arsenic(III) sulfide	-169.0					-168.6	163.6			116.3		
At	Astatine	0.0											
Au	Gold			366.1			326.3	47.4		180.5	25.4		20.8
AuBr	Gold(I) bromide	-14.0											
AuBr <sub>3</sub>	Gold(III) bromide	-53.3											
AuCl	Gold(I) chloride	-34.7											
AuCl <sub>3</sub>	Gold(III) chloride	-117.6											
AuF <sub>3</sub>	Gold(III) fluoride	-363.6											
AuH	Gold hydride			295.0			265.7			211.2			29.2
AuI	Gold(I) iodide	0.0											
Au <sub>2</sub>	Digold			515.1									36.9
B	Boron (rhombic)	0.0		565.0			521.0	5.9		153.4	11.1		20.8
BBr	Bromoborane			238.1			195.4			225.0			32.9
BBr <sub>3</sub>	Boron tribromide		-239.7	-205.6			-238.5		229.7	324.2			67.8
BCl	Chloroborane			149.5			120.9			213.2			31.7
BClO	Chloroxyborane			-314.0									
BCl <sub>3</sub>	Boron trichloride		-427.2	-403.8			-387.4		206.3	290.1		106.7	62.7
BCsO <sub>2</sub>	Cesium metaborate	-972.0					-915.0	104.4			80.6		
BF	Fluoroborane			-122.2			-149.8			200.5			29.6
BFO	Fluorooxyborane			-607.0									
BF <sub>3</sub>	Boron trifluoride			-1136.0			-1119.4			254.4			
BF <sub>3</sub> H <sub>3</sub> N	Aminet trifluoroboron	-1353.9											
BF <sub>3</sub> H <sub>3</sub> P	Trihydro(phosphorus trifluoride)boron			-854.0									
BF <sub>4</sub> Na	Sodium tetrafluoroborate	-1844.7					-1750.1	145.3			120.3		

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
BH	Boron monohydride			442.7			419.6			171.9			29.2
BHO <sub>2</sub>	Metaboric acid (monoclinic)	-794.3		-561.9	-723.4		-551.0	38.0		240.1			42.2
BH <sub>3</sub>	Borane (3)			89.2						188.2			36.0
BH <sub>3</sub> O <sub>3</sub>	Boric acid (orthoboric acid)	-1094.3		-994.1	-968.9			90.0			86.1		
BH <sub>4</sub> K	Potassium borohydride	-227.4			-160.3			106.3			96.1		
BH <sub>4</sub> Li	Lithium borohydride	-190.8			-125.0			75.9			82.6		
BH <sub>4</sub> Na	Sodium borohydride	-188.6			-123.9			101.3			86.8		
BI <sub>3</sub>	Boron triiodide			71.1			20.7			349.2			70.8
BKO <sub>2</sub>	Potassium metaborate	-981.6			-923.4			80.0			66.7		
BLiO <sub>2</sub>	Lithium metaborate	-1032.2			-976.1			51.5			59.8		
BN	Boron nitride	-254.4		647.5	-228.4		614.5	14.8		212.3	19.7		29.5
BNaO <sub>2</sub>	Sodium metaborate	-977.0			-920.7			73.5			65.9		
BO	Boron monoxide			25.0			-4.0			203.5			29.2
BO <sub>2</sub>	Boron dioxide			-300.4			-305.9			229.6			43.0
BO <sub>2</sub> Rb	Rubidium metaborate	-971.0			-913.0			94.3			74.1		
BS	Boron monosulfide			342.0			288.8			216.2			30.0
B <sub>2</sub>	Diboron			830.5			774.0			201.9			30.5
B <sub>2</sub> Cl <sub>4</sub>	Tetrachlorodiborane		-523.0	-490.4	-464.8		-460.6	262.3		357.4	137.7		95.4
B <sub>2</sub> F <sub>4</sub>	Tetrafluorodiborane			-1440.1			-1410.4			317.3			79.1
B <sub>2</sub> H <sub>6</sub>	Diborane			36.4			86.7			232.1			56.7
B <sub>2</sub> O <sub>2</sub>	Diboron dioxide			-454.8			-462.3			242.5			57.3
B <sub>2</sub> O <sub>3</sub>	Boron oxide	-1273.5		-843.8	-1194.3		-832.0	54.0		279.8	62.8		66.9
B <sub>2</sub> S <sub>3</sub>	Boron sulfide	-240.6		67.0				100.0			111.7		
B <sub>3</sub> H <sub>6</sub> N <sub>3</sub>	Borazine		-541.0				-392.7		199.6				
B <sub>4</sub> H <sub>10</sub>	Tetraborane (10)			66.1						280.3			93.2
B <sub>4</sub> Na <sub>2</sub> O <sub>7</sub>	Sodium tetraborate	-3291.1			-3096.0			189.5			186.8		
B <sub>5</sub> H <sub>9</sub>	Pentaborane(9)		42.7	73.2		171.8	175.0		184.2	280.6		151.1	99.6
B <sub>5</sub> H <sub>11</sub>	Pentaborane (11)		73.2	103.3						321.0			130.3
B <sub>6</sub> H <sub>10</sub>	Hexaborane (10)		56.3	94.6						296.8			125.7
Ba	Barium	0.0		180.0			146.0	62.5		170.2	28.1		20.8
BaBr <sub>2</sub>	Barium bromide	-757.3			-736.8			146.0					
BaCl <sub>2</sub>	Barium chloride	-855.0			-806.7			123.7			75.1		
BaCl <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	Barium chloride dihydrate	-1456.9			-1293.2			203.0					
BaF <sub>2</sub>	Barium fluoride	-1207.1			-1156.8			96.4			71.2		
BaH <sub>2</sub>	Barium hydride	-177.0			-138.2			63.0			46.0		
BaH <sub>2</sub> O <sub>2</sub>	Barium hydroxide	-944.7											
BaI <sub>2</sub>	Barium iodide	-602.1											
BaN <sub>2</sub> O <sub>4</sub>	Barium nitrite	-768.2											
BaN <sub>2</sub> O <sub>6</sub>	Barium nitrate	-988.0			-792.6			214.0			151.4		
BaO	Barium oxide	-548.0			-520.3			72.1			47.3		
BaO <sub>4</sub> S	Barium sulfate	-1473.2			-1362.2			132.2			101.8		
BaS	Barium sulfide	-460.0			-456.0			78.2			49.4		
Be	Beryllium	0.0		324.0			286.6	9.5		136.3	16.4		20.8
BeBr <sub>2</sub>	Beryllium bromide	-353.5						108.0			69.4		
BeCl <sub>2</sub>	Beryllium chloride	-490.4			-445.6			75.8			62.4		

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
BeF <sub>2</sub>	Beryllium fluoride	-1026.8			-979.4			53.4			51.8		
BeH <sub>2</sub> O <sub>2</sub>	Beryllium hydroxide	-902.5			-815.0			45.5			62.1		
BeI <sub>2</sub>	Beryllium iodide	-192.5						121.0			71.1		
BeO	Beryllium oxide	-609.4			-580.1			13.8			25.6		
BeO <sub>4</sub> S	Beryllium sulfate	-1205.2			-1093.8			77.9			85.7		
BeS	Beryllium sulfide	-234.3						34.0			34.0		
Bi	Bismuth	0.0		207.1			168.2	56.7		187.0	25.5		20.8
BiClO	Bismuth oxychloride	-366.9			-322.1			120.5					
BiCl <sub>3</sub>	Bismuth trichloride	-379.1		-265.7	-315.0		-256.0	177.0		358.9	105.0		79.7
BiH <sub>3</sub> O <sub>3</sub>	Bismuth hydroxide	-711.3											
BiI <sub>3</sub>	Bismuth triiodide				-175.3								
Bi <sub>2</sub>	Dibismuth			219.7									36.9
Bi <sub>2</sub> O <sub>3</sub>	Bismuth oxide	-573.9			-493.7			151.5			113.5		
Bi <sub>2</sub> O <sub>12</sub> S <sub>3</sub>	Bismuth sulfate	-2544.3											
Bi <sub>2</sub> S <sub>3</sub>	Bismuth sulfide	-143.1			-140.6			200.4			122.2		
Bk	Berkelium	0.0											
Br	Bromine (atomic)			111.9			82.4			175.0			20.8
BrCl	Bromine chloride			14.6			-1.0			240.1			35.0
BrCl <sub>3</sub> Si	Bromotrichlorosilane									350.1			90.9
BrCs	Cesium bromide	-405.8			-391.4			113.1			52.9		
BrCu	Copper(I) bromide	-104.6			-100.8			96.1			54.7		
BrF	Bromine fluoride			-93.8			-109.2			229.0			33.0
BrF <sub>3</sub>	Bromine trifluoride		-300.8	-255.6		-240.5	-229.4		178.2		292.5	124.6	66.6
BrF <sub>5</sub>	Bromine pentafluoride		-458.6	-428.9		-351.8	-350.6		225.1		320.2		99.6
BrGe	Germanium monobromide			235.6									37.1
BrGeH <sub>3</sub>	Bromogermane									274.8			56.4
BrH	Hydrogen bromide			-36.3			-53.4			198.7			29.1
BrHSi	Bromosilylene			-464.4									
BrH <sub>3</sub> Si	Bromosilane									262.4			52.8
BrH <sub>4</sub> N	Ammonium bromide	-270.8			-175.2			113.0			96.0		
BrI	Iodine bromide			40.8			3.7			258.8			36.4
BrIn	Indium(I) bromide	-175.3		-56.9	-169.0		-94.3	113.0		259.5			36.7
BrK	Potassium bromide	-393.8			-380.7			95.9			52.3		
BrKO <sub>3</sub>	Potassium bromate	-360.2			-271.2			149.2			105.2		
BrKO <sub>4</sub>	Potassium perbromate	-287.9			-174.4			170.1			120.2		
BrLi	Lithium bromide	-351.2			-342.0			74.3					
BrNO	Nitrosyl bromide			82.2			82.4			273.7			45.5
BrNa	Sodium bromide	-361.1		-143.1	-349.0		-177.1	86.8		241.2	51.4		36.3
BrNaO <sub>3</sub>	Sodium bromate	-334.1			-242.6			128.9					
BrO	Bromine monoxide			125.8			108.2			237.6			32.1
BrO <sub>2</sub>	Bromine dioxide	48.5											
BrRb	Rubidium bromide	-394.6			-381.8			110.0			52.8		
BrSi	Bromosilyldyne			209.0									38.6
BrTl	Thallium(I) bromide	-173.2			-167.4			120.5					
Br <sub>2</sub>	Bromine		0.0	30.9			3.1	152.2		245.5		75.7	36.0

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
Br <sub>2</sub> Ca	Calcium bromide	-682.8			-663.6			130.0					
Br <sub>2</sub> Cd	Cadmium bromide	-316.2			-296.3			137.2				76.7	
Br <sub>2</sub> Co	Cobalt(II) bromide	-220.9										79.5	
Br <sub>2</sub> Cr	Chromium(II) bromide	-302.1											
Br <sub>2</sub> Cu	Copper(II) bromide	-141.8											
Br <sub>2</sub> Fe	Iron(II) bromide	-249.8			-238.1			140.6					
Br <sub>2</sub> H <sub>2</sub> Si	Dibromosilane									309.7			65.5
Br <sub>2</sub> Hg	Mercury(II) bromide	-170.7			-153.1			172.0					
Br <sub>2</sub> Hg <sub>2</sub>	Mercury(I) bromide	-206.9			-181.1			218.0					
Br <sub>2</sub> Mg	Magnesium bromide	-524.3			-503.8			117.2					
Br <sub>2</sub> Mn	Manganese(II) bromide	-384.9											
Br <sub>2</sub> Ni	Nickel(II) bromide	-212.1											
Br <sub>2</sub> Pb	Lead(II) bromide	-278.7			-261.9			161.5				80.1	
Br <sub>2</sub> Pt	Platinum(II) bromide	-82.0											
Br <sub>2</sub> S <sub>2</sub>	Sulfur bromide		-13.0										
Br <sub>2</sub> Se	Selenium bromide			-21.0									
Br <sub>2</sub> Sn	Tin(II) bromide	-243.5											
Br <sub>2</sub> Sr	Strontium bromide	-717.6			-697.1			135.1				75.3	
Br <sub>2</sub> Ti	Titanium(II) bromide	-402.0											
Br <sub>2</sub> Zn	Zinc bromide	-328.7			-312.1			138.5					
Br <sub>3</sub> ClSi	Tribromochlorosilane									377.1			95.3
Br <sub>3</sub> Fe	Iron(III) bromide	-268.2											
Br <sub>3</sub> Ga	Gallium(III) bromide	-386.6			-359.8			180.0					
Br <sub>3</sub> H <sub>2</sub> Si	Tribromosilane		-355.6	-317.6		-336.4	-328.5		248.1	348.6			80.8
Br <sub>3</sub> In	Indium(III) bromide	-428.9		-282.0									
Br <sub>3</sub> OP	Phosphorus(V) oxybromide	-458.6								359.8			89.9
Br <sub>3</sub> P	Phosphorus(III) bromide		-184.5	-139.3		-175.7	-162.8		240.2	348.1			76.0
Br <sub>3</sub> Pt	Platinum(III) bromide	-120.9											
Br <sub>3</sub> Re	Rhenium(III) bromide	-167.0											
Br <sub>3</sub> Ru	Ruthenium(III) bromide	-138.0											
Br <sub>3</sub> Sb	Antimony(III) bromide	-259.4		-194.6	-239.3		-223.9	207.1		372.9			80.2
Br <sub>3</sub> Sc	Scandium bromide	-743.1											
Br <sub>3</sub> Ti	Titanium(III) bromide	-548.5			-523.8			176.6				101.7	
Br <sub>4</sub> Ge	Germanium(IV) bromide		-347.7	-300.0		-331.4	-318.0		280.7	396.2			101.8
Br <sub>4</sub> Pa	Protactinium(IV) bromide	-824.0			-787.8			234.0					
Br <sub>4</sub> Pt	Platinum(IV) bromide	-156.5											
Br <sub>4</sub> Si	Tetrabromosilane		-457.3	-415.5		-443.9	-431.8		277.8	377.9			97.1
Br <sub>4</sub> Sn	Tin(IV) bromide	-377.4		-314.6	-350.2		-331.4	264.4		411.9			103.4
Br <sub>4</sub> Te	Tellurium tetrabromide	-190.4											
Br <sub>4</sub> Ti	Titanium(IV) bromide	-616.7		-549.4	-589.5		-568.2	243.5		398.4		131.5	100.8
Br <sub>4</sub> V	Vanadium(IV) bromide			-336.8									
Br <sub>4</sub> Zr	Zirconium(IV) bromide	-760.7											
Br <sub>5</sub> P	Phosphorus(V) bromide	-269.9											
Br <sub>5</sub> Ta	Tantalum(V) bromide	-598.3											
Br <sub>6</sub> W	Tungsten(VI) bromide	-348.5											

Molecular formula	Name	$\Delta_f H^\circ / \text{kJ mol}^{-1}$			$\Delta_f G^\circ / \text{kJ mol}^{-1}$			$S^\circ / \text{J mol}^{-1} \text{K}^{-1}$			$C_p / \text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
Ca	Calcium	0.0		177.8		144.0	41.6		154.9	25.9		20.8	
CaCl <sub>2</sub>	Calcium chloride	-795.4			-748.8		108.4			72.9			
CaF <sub>2</sub>	Calcium fluoride	-1228.0			-1175.6		68.5			67.0			
CaH <sub>2</sub>	Calcium hydride	-181.5			-142.5		41.4			41.0			
CaH <sub>2</sub> O <sub>2</sub>	Calcium hydroxide	-985.2			-897.5		83.4			87.5			
CaI <sub>2</sub>	Calcium iodide	-533.5			-528.9		142.0						
CaN <sub>2</sub> O <sub>6</sub>	Calcium nitrate	-938.2			-742.8		193.2			149.4			
CaO	Calcium oxide	-634.9			-603.3		38.1			42.0			
CaO <sub>4</sub> S	Calcium sulfate	-1434.5			-1322.0		106.5			99.7			
CaS	Calcium sulfide	-482.4			-477.4		56.5			47.4			
Ca <sub>3</sub> O <sub>8</sub> P <sub>2</sub>	Calcium phosphate	-4120.8			-3884.7		236.0			227.8			
Cd	Cadmium	0.0		111.8			51.8		167.7	26.0		20.8	
CdCl <sub>2</sub>	Cadmium chloride	-391.5			-343.9		115.3			74.7			
CdF <sub>2</sub>	Cadmium fluoride	-700.4			-647.7		77.4						
CdH <sub>2</sub> O <sub>2</sub>	Cadmium hydroxide	-560.7			-473.6		96.0						
CdI <sub>2</sub>	Cadmium iodide	-203.3			-201.4		161.1			80.0			
CdO	Cadmium oxide	-258.4			-228.7		54.8			43.4			
CdO <sub>4</sub> S	Cadmium sulfate	-933.3			-822.7		123.0			99.6			
CdS	Cadmium sulfide	-161.9			-156.5		64.9						
CdTe	Cadmium telluride	-92.5			-92.0		100.0						
Ce	Cerium ( $\gamma$ , fcc)	0.0		423.0		385.0	72.0		191.8	26.9		23.1	
CeCl <sub>3</sub>	Cerium(III) chloride	-1060.5			-984.8		151.0			87.4			
CeI <sub>3</sub>	Cerium(III) iodide	-669.3											
CeO <sub>2</sub>	Cerium(IV) oxide	-1088.7			-1024.6		62.3			61.6			
CeS	Cerium(II) sulfide	-459.4			-451.5		78.2			50.0			
Ce <sub>2</sub> O <sub>3</sub>	Cerium(III) oxide	-1796.2			-1706.2		150.6			114.6			
Cf	Californium	0.0											
Cl	Chlorine (atomic)			121.3		105.3			165.2			21.8	
ClCs	Cesium chloride	-443.0			-414.5		101.2			52.5			
ClCsO <sub>4</sub>	Cesium perchlorate	-443.1			-314.3		175.1			108.3			
ClCu	Copper(I) chloride	-137.2			-119.9		86.2			48.5			
ClF	Chlorine fluoride			-50.3		-51.8			217.9			32.1	
ClFO <sub>3</sub>	Perchloryl fluoride			-23.8		48.2			279.0			64.9	
ClF <sub>3</sub>	Chlorine trifluoride		-189.5	-163.2		-123.0			281.6			63.9	
ClF <sub>5</sub> S	Sulfur chloride pentafluoride		-1065.7										
ClGe	Germanium monochloride			155.2		124.2			247.0			36.9	
ClGeH <sub>3</sub>	Chlorogermane								263.7			54.7	
ClH	Hydrogen chloride			-92.3		-95.3			186.9			29.1	
ClHO	Hypochlorous acid			-78.7		-66.1			236.7			37.2	
ClHO <sub>4</sub>	Perchloric acid		-40.6										
ClH <sub>3</sub> Si	Chlorosilane								250.7			51.0	
ClH <sub>4</sub> N	Ammonium chloride	-314.4			-202.9		94.6			84.1			
ClH <sub>4</sub> NO <sub>4</sub>	Ammonium perchlorate	-295.3			-88.8		186.2						
ClH <sub>4</sub> P	Phosphonium chloride	-145.2											
ClI	Iodine chloride		-23.9	17.8		-13.6			135.1	247.6		35.6	

Molecular formula	Name	$\Delta_f H^\circ/\text{kJ mol}^{-1}$			$\Delta_f G^\circ/\text{kJ mol}^{-1}$			$S^\circ/\text{J mol}^{-1} \text{K}^{-1}$			$C_p/\text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
ClIn	Indium(I) chloride	-186.2		-75.0									
ClK	Potassium chloride	-436.5		-214.6	-408.5		-233.3	82.6		239.1	51.3		36.5
ClKO <sub>3</sub>	Potassium chlorate	-397.7			-296.3			143.1			100.3		
ClKO <sub>4</sub>	Potassium perchlorate	-432.8			-303.1			151.0			112.4		
CLi	Lithium chloride	-408.6			-384.4			59.3			48.0		
CLiO <sub>4</sub>	Lithium perchlorate	-381.0											
ClNO	Nitrosyl chloride			51.7			66.1			261.7			44.7
ClNO <sub>2</sub>	Nitryl chloride			12.6			54.4			272.2			53.2
ClNa	Sodium chloride	-411.2			-384.1			72.1			50.5		
ClNaO <sub>2</sub>	Sodium chlorite	-307.0											
ClNaO <sub>3</sub>	Sodium chlorate	-365.8			-262.3			123.4					
ClNaO <sub>4</sub>	Sodium perchlorate	-383.3			-254.9			142.3					
ClO	Chlorine monoxide			101.8			98.1			226.6			31.5
ClOV	Vanadyl chloride	-607.0			-556.0			75.0					
ClO <sub>2</sub>	Chlorine dioxide			102.5			120.5			256.8			42.0
ClO <sub>2</sub>	Chlorine superoxide (ClOO)			89.1			105.0			263.7			46.0
ClO <sub>4</sub> Rb	Rubidium perchlorate	-437.2			-306.9			161.1					
ClRb	Rubidium chloride	-435.4			-407.8			95.9			52.4		
ClSi	Chlorosilylidene			189.9									36.9
ClTl	Thallium(I) chloride	-204.1		-67.8	-184.9			111.3			50.9		
Cl <sub>2</sub>	Chlorine			0.0						223.1			33.9
Cl <sub>2</sub> Co	Cobalt(II) chloride	-312.5			-269.8			109.2			78.5		
Cl <sub>2</sub> Cr	Chromium(II) chloride	-395.4			-356.0			115.3			71.2		
Cl <sub>2</sub> CrO <sub>2</sub>	Chromyl chloride		-579.5	-538.1		-510.8	-501.6		221.8	329.8			84.5
Cl <sub>2</sub> Cu	Copper(II) chloride	-220.1			-175.7			108.1			71.9		
Cl <sub>2</sub> Fe	Iron(II) chloride	-341.8			-302.3			118.0			76.7		
Cl <sub>2</sub> H <sub>2</sub> Si	Dichlorosilane									285.7			60.5
Cl <sub>2</sub> Hg	Mercury(II) chloride	-224.3			-178.6			146.0					
Cl <sub>2</sub> Hg <sub>2</sub>	Mercury(I) chloride	-265.4			-210.7			191.6					
Cl <sub>2</sub> Mg	Magnesium chloride	-641.3			-591.8			89.6			71.4		
Cl <sub>2</sub> Mn	Manganese(II) chloride	-481.3			-440.5			118.2			72.9		
Cl <sub>2</sub> Ni	Nickel(II) chloride	-305.3			-259.0			97.7			71.7		
Cl <sub>2</sub> O	Chlorine oxide			80.3			97.9			266.2			45.4
Cl <sub>2</sub> OS	Thionyl chloride		-245.6	-212.5			-198.3			309.8		121.0	66.5
Cl <sub>2</sub> O <sub>2</sub> S	Sulfuryl chloride		-394.1	-364.0			-320.0			311.9		134.0	77.0
Cl <sub>2</sub> O <sub>2</sub> U	Uranyl chloride	-1243.9			-1146.4			150.5			107.9		
Cl <sub>2</sub> Pb	Lead(II) chloride	-359.4			-314.1			136.0					
Cl <sub>2</sub> Pt	Platinum(II) chloride	-123.4											
Cl <sub>2</sub> S	Sulfur dichloride		-50.0										
Cl <sub>2</sub> S <sub>2</sub>	Sulfur chloride		-59.4										
Cl <sub>2</sub> Sn	Tin(II) chloride	-325.1											
Cl <sub>2</sub> Sr	Strontium chloride	-828.9			-781.1			114.9			75.6		
Cl <sub>2</sub> Ti	Titanium(II) chloride	-513.8			-464.4			87.4			69.8		
Cl <sub>2</sub> Zn	Zinc chloride	-415.1		-266.1	-369.4			111.5			71.3		
Cl <sub>2</sub> Zr	Zirconium(II) chloride	-502.0											

Molecular formula	Name	$\Delta_f H^\circ/\text{kJ mol}^{-1}$			$\Delta_f G^\circ/\text{kJ mol}^{-1}$			$S^\circ/\text{J mol}^{-1} \text{K}^{-1}$			$C_p/\text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
Cl <sub>3</sub> Cr	Chromium(III) chloride	-556.5			-486.1			123.0			91.8		
Cl <sub>3</sub> Dy	Dysprosium(III) chloride	-1000.0											
Cl <sub>3</sub> Er	Erbium chloride	-998.7									100.0		
Cl <sub>3</sub> Eu	Europium(III) chloride	-936.0											
Cl <sub>3</sub> Fe	Iron(III) chloride	-399.5			-334.0			142.3			96.7		
Cl <sub>3</sub> Ga	Gallium(III) chloride	-524.7			-454.8			142.0					
Cl <sub>3</sub> Gd	Gadolinium(III) chloride	-1008.0									88.0		
Cl <sub>3</sub> HSi	Trichlorosilane		-539.3	-513.0		-482.5	-482.0		227.6	313.9			75.8
Cl <sub>3</sub> Ho	Holmium chloride	-1005.4									88.0		
Cl <sub>3</sub> In	Indium(III) chloride	-537.2		-374.0									
Cl <sub>3</sub> Ir	Iridium(III) chloride	-245.6											
Cl <sub>3</sub> La	Lanthanum chloride	-1072.2									108.8		
Cl <sub>3</sub> Lu	Lutetium chloride	-945.6		-649.0									
Cl <sub>3</sub> N	Nitrogen trichloride		230.0										
Cl <sub>3</sub> Nd	Neodymium chloride	-1041.0									113.0		
Cl <sub>3</sub> OP	Phosphorus(V) oxychloride		-597.1	-558.5		-520.8	-512.9		222.5	325.5		138.8	84.9
Cl <sub>3</sub> OV	Vanadyl trichloride		-734.7	-695.6		-668.5	-659.3		244.3	344.3			89.9
Cl <sub>3</sub> Os	Osmium(III) chloride	-190.4											
Cl <sub>3</sub> P	Phosphorus(III) chloride		-319.7	-287.0		-272.3	-267.8		217.1	311.8			71.8
Cl <sub>3</sub> Pr	Praseodymium chloride	-1056.9									100.0		
Cl <sub>3</sub> Pt	Platinum(III) chloride	-182.0											
Cl <sub>3</sub> Re	Rhenium(III) chloride	-264.0			-188.0			123.8			92.4		
Cl <sub>3</sub> Rh	Rhodium(III) chloride	-299.2											
Cl <sub>3</sub> Ru	Ruthenium(III) chloride	-205.0											
Cl <sub>3</sub> Sb	Antimony(III) chloride	-382.2			-323.7			184.1			107.9		
Cl <sub>3</sub> Sc	Scandium chloride	-925.1											
Cl <sub>3</sub> Sm	Samarium(III) chloride	-1025.9											
Cl <sub>3</sub> Tb	Terbium chloride	-997.0											
Cl <sub>3</sub> Ti	Titanium(III) chloride	-720.9			-653.5			139.7			97.2		
Cl <sub>3</sub> Tl	Thallium(III) chloride	-315.1											
Cl <sub>3</sub> Tm	Thulium chloride	-986.6											
Cl <sub>3</sub> U	Uranium(III) chloride	-866.5			-799.1			159.0			102.5		
Cl <sub>3</sub> V	Vanadium(III) chloride	-580.7			-511.2			131.0			93.2		
Cl <sub>3</sub> Y	Yttrium chloride	-1000.0		-750.2									75.0
Cl <sub>3</sub> Yb	Ytterbium(III) chloride	-959.8											
Cl <sub>4</sub> Ge	Germanium(IV) chloride		-531.8	-495.8		-462.7	-457.3		245.6	347.7			96.1
Cl <sub>4</sub> Hf	Hafnium(IV) chloride	-990.4		-884.5	-901.3			190.8			120.5		
Cl <sub>4</sub> Pa	Protactinium(IV) chloride	-1043.0			-953.0			192.0					
Cl <sub>4</sub> Pb	Lead(IV) chloride		-329.3										
Cl <sub>4</sub> Pt	Platinum(IV) chloride	-231.8											
Cl <sub>4</sub> Si	Tetrachlorosilane		-687.0	-657.0		-619.8	-617.0		239.7	330.7		145.3	90.3
Cl <sub>4</sub> Sn	Tin(IV) chloride		-511.3	-471.5		-440.1	-432.2		258.6	365.8		165.3	98.3
Cl <sub>4</sub> Te	Tellurium tetrachloride	-326.4									138.5		
Cl <sub>4</sub> Th	Thorium(IV) chloride	-1186.2		-964.4	-1094.1		-932.0	190.4		390.7	120.3		107.5
Cl <sub>4</sub> Ti	Titanium(IV) chloride		-804.2	-763.2		-737.2	-726.3		252.3	353.2		145.2	95.4

Molecular formula	Name	$\Delta_f H^\circ / \text{kJ mol}^{-1}$			$\Delta_f G^\circ / \text{kJ mol}^{-1}$			$S^\circ / \text{J mol}^{-1} \text{K}^{-1}$			$C_p / \text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
Cl <sub>4</sub> U	Uranium(IV) chloride	-1019.2		-809.6	-930.0		-786.6	197.1		419.0	122.0		
Cl <sub>4</sub> V	Vanadium(IV) chloride		-569.4	-525.5		-503.7	-492.0		255.0	362.4			96.2
Cl <sub>4</sub> Zr	Zirconium(IV) chloride	-980.5			-889.9			181.6			119.8		
Cl <sub>5</sub> Nb	Niobium(V) chloride	-797.5		-703.7	-683.2		-646.0	210.5		400.6	148.1		120.8
Cl <sub>5</sub> P	Phosphorus(V) chloride	-443.5		-374.9			-305.0			364.6			112.8
Cl <sub>5</sub> Pa	Protactinium(V) chloride	-1145.0			-1034.0			238.0					
Cl <sub>5</sub> Ta	Tantalum(V) chloride	-859.0											
Cl <sub>6</sub> U	Uranium(VI) chloride	-1092.0		-1013.0	-962.0		-928.0	285.8		431.0	175.7		
Cl <sub>6</sub> W	Tungsten(VI) chloride	-602.5		-513.8									
Cm	Curium	0.0											
Co	Cobalt	0.0		424.7			380.3	30.0		179.5	24.8		23.0
CoF <sub>2</sub>	Cobalt(II) fluoride	-692.0			-647.2			82.0			68.8		
CoH <sub>2</sub> O <sub>2</sub>	Cobalt(II) hydroxide	-539.7			-454.3			79.0					
CoI <sub>2</sub>	Cobalt(II) iodide	-88.7											
CoN <sub>2</sub> O <sub>6</sub>	Cobalt(II) nitrate	-420.5											
CoO	Cobalt(II) oxide	-237.9			-214.2			53.0			55.2		
CoO <sub>4</sub> S	Cobalt(II) sulfate	-888.3			-782.3			118.0					
CoS	Cobalt(II) sulfide	-82.8											
Co <sub>2</sub> S <sub>3</sub>	Cobalt(III) sulfide	-147.3											
Co <sub>3</sub> O <sub>4</sub>	Cobalt(II,III) oxide	-891.0			-774.0			102.5			123.4		
Cr	Chromium	0.0		396.6			351.8	23.8		174.5	23.4		20.8
CrF <sub>2</sub>	Chromium(II) fluoride	-778.0											
CrF <sub>3</sub>	Chromium(III) fluoride	-1159.0			-1088.0			93.9			78.7		
CrI <sub>2</sub>	Chromium(II) iodide	-156.9											
CrI <sub>3</sub>	Chromium(III) iodide	-205.0											
CrO <sub>2</sub>	Chromium(IV) oxide	-598.0											
CrO <sub>4</sub> Pb	Lead(II) chromate	-930.9											
Cr <sub>2</sub> FeO <sub>4</sub>	Chromium iron oxide	-1444.7			-1343.8			146.0			133.6		
Cr <sub>2</sub> O <sub>3</sub>	Chromium(III) oxide	-1139.7			-1058.1			81.2			118.7		
Cr <sub>3</sub> O <sub>4</sub>	Chromium(II,III) oxide	-1531.0											
Cs	Cesium	0.0		76.5			49.6	85.2		175.6	32.2		20.8
CsF	Cesium fluoride	-553.5			-525.5			92.8			51.1		
CsF <sub>2</sub> H	Cesium hydrogen fluoride	-923.8			-858.9			135.2			87.3		
CsH	Cesium hydride	-54.2											
CsHO	Cesium hydroxide	-417.2											
CsHO <sub>4</sub> S	Cesium hydrogen sulfate	-1158.1											
CsH <sub>2</sub> N	Cesium amide	-118.4											
CsI	Cesium iodide	-346.6			-340.6			123.1			52.8		
CsNO <sub>3</sub>	Cesium nitrate	-506.0			-406.5			155.2					
CsO <sub>2</sub>	Cesium superoxide	-286.2											
Cs <sub>2</sub> O	Cesium oxide	-345.8			-308.1			146.9			76.0		
Cs <sub>2</sub> O <sub>3</sub> S	Cesium sulfite	-1134.7											
Cs <sub>2</sub> O <sub>4</sub> S	Cesium sulfate	-1443.0			-1323.6			211.9			134.9		
Cs <sub>2</sub> S	Cesium sulfide	-359.8											
Cu	Copper	0.0		337.4			297.7	33.2		166.4	24.4		20.8

Molecular formula	Name	$\Delta_f H^\circ / \text{kJ mol}^{-1}$			$\Delta_f G^\circ / \text{kJ mol}^{-1}$			$S^\circ / \text{J mol}^{-1} \text{K}^{-1}$			$C_p / \text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
CuF <sub>2</sub>	Copper(II) fluoride	-542.7											
CuH <sub>2</sub> O <sub>2</sub>	Copper(II) hydroxide	-449.8											
CuI	Copper(I) iodide	-67.8			-69.5			96.7			54.1		
CuN <sub>2</sub> O <sub>6</sub>	Copper(II) nitrate	-302.9											
CuO	Copper(II) oxide	-157.3			-129.7			42.6			42.3		
CuO <sub>4</sub> S	Copper(II) sulfate	-771.4			-662.2			109.2					
CuO <sub>4</sub> W	Copper(II) tungstate	-1105.0											
CuS	Copper(II) sulfide	-53.1			-53.6			66.5			47.8		
CuSe	Copper(II) selenide	-39.5											
Cu <sub>2</sub>	Dicopper			484.2			431.9			241.6			36.6
Cu <sub>2</sub> O	Copper(I) oxide	-168.6			-146.0			93.1			63.6		
Cu <sub>2</sub> S	Copper(I) sulfide	-79.5			-86.2			120.9			76.3		
Dy	Dysprosium	0.0		290.4			254.4	75.6		196.6	27.7		20.8
Dy <sub>2</sub> O <sub>3</sub>	Dysprosium(III) oxide	-1863.1			-1771.5			149.8			116.3		
Er	Erbium	0.0		317.1			280.7	73.2		195.6	28.1		20.8
ErF <sub>3</sub>	Erbium fluoride	-1711.0											
Er <sub>2</sub> O <sub>3</sub>	Erbium oxide	-1897.9			-1808.7			155.6			108.5		
Es	Einsteinium	0.0											
Eu	Europium	0.0		175.3			142.2	77.8		188.8	27.7		20.8
Eu <sub>2</sub> O <sub>3</sub>	Europium(III) oxide	-1651.4			-1556.8			146.0			122.2		
Eu <sub>3</sub> O <sub>4</sub>	Europium(II,III) oxide	-2272.0			-2142.0			205.0					
F	Fluorine (atomic)			79.4			62.3			158.8			22.7
FGa	Gallium monofluoride			-251.9									33.3
FGe	Germanium monofluoride			-33.4									34.7
FGeH <sub>3</sub>	Fluorogermane									252.8			51.6
FH	Hydrogen fluoride		-299.8	-273.3			-275.4			173.8			
FH <sub>3</sub> Si	Fluorosilane									238.4			47.4
FH <sub>4</sub> N	Ammonium fluoride	-464.0			-348.7			72.0			65.3		
FI	Iodine fluoride			-95.7			-118.5			236.2			33.4
FIn	Indium monofluoride			-203.4									
FK	Potassium fluoride	-567.3			-537.8			66.6			49.0		
FLi	Lithium fluoride	-616.0			-587.7			35.7			41.6		
FNO	Nitrosyl fluoride			-66.5			-51.0			248.1			41.3
FNO <sub>2</sub>	Nitryl fluoride									260.4			49.8
FNS	Thionitrosyl fluoride (NSF)									259.8			44.1
FNa	Sodium fluoride	-576.6			-546.3			51.1			46.9		
FO	Fluorine monoxide			109.0			105.0			216.8			30.5
FRb	Rubidium fluoride	-557.7											
FSi	Fluorosilylydyne			7.1			-24.3			225.8			32.6
FTl	Thallium(I) fluoride	-324.7		-182.4									
F <sub>2</sub>	Fluorine			0.0						202.8			31.3
F <sub>2</sub> Fe	Iron(II) fluoride	-711.3			-668.6			87.0			68.1		
F <sub>2</sub> HK	Potassium hydrogen fluoride	-927.7			-859.7			104.3			76.9		
F <sub>2</sub> HN	Difluoramine									252.8			43.4
F <sub>2</sub> HNa	Sodium hydrogen fluoride	-920.3			-852.2			90.9			75.0		

Molecular formula	Name	$\Delta_f H^\circ/\text{kJ mol}^{-1}$			$\Delta_f G^\circ/\text{kJ mol}^{-1}$			$S^\circ/\text{J mol}^{-1} \text{K}^{-1}$			$C_p/\text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
F <sub>2</sub> HRb	Rubidium hydrogen fluoride	-922.6			-855.6			120.1			79.4		
F <sub>2</sub> Mg	Magnesium fluoride	-1124.2			-1071.1			57.2			61.6		
F <sub>2</sub> N	Difluoroamidogen			43.1			57.8			249.9			41.0
F <sub>2</sub> N <sub>2</sub>	<i>cis</i> -Difluorodiazine			69.5									
F <sub>2</sub> N <sub>2</sub>	<i>trans</i> -Difluorodiazine			82.0									
F <sub>2</sub> Ni	Nickel(II) fluoride	-651.4			-604.1			73.6			64.1		
F <sub>2</sub> O	Fluorine monoxide			24.7			41.9			247.4			43.3
F <sub>2</sub> OS	Thionyl fluoride									278.7			56.8
F <sub>2</sub> O <sub>2</sub>	Fluorine dioxide			18.0									
F <sub>2</sub> O <sub>2</sub> S	Sulfuryl fluoride									284.0			66.0
F <sub>2</sub> O <sub>2</sub> U	Uranyl fluoride	-1653.5			-1557.4			135.6			103.2		
F <sub>2</sub> Pb	Lead(II) fluoride	-664.0			-617.1			110.5					
F <sub>2</sub> Si	Difluorosilene			-619.0			-628.0			252.7			43.9
F <sub>2</sub> Sr	Strontium fluoride	-1216.3			-1164.8			82.1			70.0		
F <sub>2</sub> Zn	Zinc fluoride	-764.4			-713.3			73.7			65.7		
F <sub>3</sub> Ga	Gallium(III) fluoride	-1163.0			-1085.3			84.0					
F <sub>3</sub> Gd	Gadolinium(III) fluoride			-1297.0									
F <sub>3</sub> HSi	Trifluorosilane									271.9			60.5
F <sub>3</sub> Ho	Holmium fluoride	-1707.0											
F <sub>3</sub> N	Nitrogen trifluoride			-132.1			-90.6			260.8			53.4
F <sub>3</sub> Nd	Neodymium fluoride	-1657.0											
F <sub>3</sub> OP	Phosphorus(V) oxyfluoride			-1254.3			-1205.8			285.4			68.8
F <sub>3</sub> P	Phosphorus(III) fluoride			-958.4			-936.9			273.1			58.7
F <sub>3</sub> Sb	Antimony(III) fluoride	-915.5											
F <sub>3</sub> Sc	Scandium fluoride	-1629.2		-1247.0	-1555.6		-1234.0	92.0		300.5			67.8
F <sub>3</sub> Sm	Samarium(III) fluoride	-1778.0											
F <sub>3</sub> Th	Thorium(III) fluoride			-1166.1			-1160.6			339.2			73.3
F <sub>3</sub> U	Uranium(III) fluoride	-1502.1		-1058.5	-1433.4		-1051.9	123.4		331.9	95.1		74.3
F <sub>3</sub> Y	Yttrium fluoride	-1718.8		-1288.7	-1644.7		-1277.8	100.0		311.8			70.3
F <sub>4</sub> Ge	Germanium(IV) fluoride			-1190.2			-1150.0			301.9			
F <sub>4</sub> Hf	Hafnium fluoride	-1930.5		-1669.8	-1830.4			113.0					
F <sub>4</sub> N <sub>2</sub>	Tetrafluorohydrazine			-8.4			79.9			301.2			79.2
F <sub>4</sub> Pb	Lead(IV) fluoride	-941.8											
F <sub>4</sub> S	Sulfur tetrafluoride			-763.2			-722.0			299.6			77.6
F <sub>4</sub> Si	Tetrafluorosilane			-1615.0			-1572.8			282.8			73.6
F <sub>4</sub> Th	Thorium(IV) fluoride	-2097.8		-1759.0	-2003.4		-1724.0	142.0		341.7	110.7		93.0
F <sub>4</sub> U	Uranium(IV) fluoride	-1914.2		-1598.7	-1823.3		-1572.7	151.7		368.0	116.0		91.2
F <sub>4</sub> V	Vanadium(IV) fluoride	-1403.3											
F <sub>4</sub> Xe	Xenon tetrafluoride	-261.5											
F <sub>4</sub> Zr	Zirconium(IV) fluoride	-1911.3			-1809.9			104.6			103.7		
F <sub>5</sub> I	Iodine pentafluoride		-864.8	-822.5			-751.7			327.7			99.2
F <sub>5</sub> Nb	Niobium(V) fluoride	-1813.8		-1739.7	-1699.0		-1673.6	160.2		321.9	134.7		97.1
F <sub>5</sub> P	Phosphorus(V) fluoride			-1594.4			-1520.7			300.8			84.8
F <sub>5</sub> Ta	Tantalum(V) fluoride	-1903.6											
F <sub>5</sub> V	Vanadium(V) fluoride		-1480.3	-1433.9		-1373.1	-1369.8		175.7	320.9			98.6

STANDARD THERMODYNAMIC PROPERTIES OF CHEMICAL SUBSTANCES (continued)

Molecular formula	Name	$\Delta_f H^\circ/\text{kJ mol}^{-1}$			$\Delta_f G^\circ/\text{kJ mol}^{-1}$			$S^\circ/\text{J mol}^{-1} \text{K}^{-1}$			$C_p/\text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
F <sub>6</sub> H <sub>8</sub> N <sub>2</sub> Si	Ammonium hexafluorosilicate	-2681.7			-2365.3			280.2			228.1		
F <sub>6</sub> Ir	Iridium(VI) fluoride	-579.7		-544.0	-461.6		-460.0	247.7		357.8			121.1
F <sub>6</sub> K <sub>2</sub> Si	Potassium hexafluorosilicate	-2956.0			-2798.6			226.0					
F <sub>6</sub> Mo	Molybdenum(VI) fluoride		-1585.5	-1557.7		-1473.0	-1472.2		259.7	350.5		169.8	120.6
F <sub>6</sub> Na <sub>2</sub> Si	Sodium hexafluorosilicate	-2909.6			-2754.2			207.1			187.1		
F <sub>6</sub> Os	Osmium(VI) fluoride							246.0		358.1			120.8
F <sub>6</sub> Pt	Platinum(VI) fluoride							235.6		348.3			122.8
F <sub>6</sub> S	Sulfur hexafluoride			-1220.5			-1116.5			291.5			97.0
F <sub>6</sub> Se	Selenium hexafluoride			-1117.0			-1017.0			313.9			110.5
F <sub>6</sub> Te	Tellurium hexafluoride			-1318.0									
F <sub>6</sub> U	Uranium(VI) fluoride	-2197.0		-2147.4	-2068.5		-2063.7	227.6		377.9	166.8		129.6
F <sub>6</sub> W	Tungsten(VI) fluoride		-1747.7	-1721.7		-1631.4	-1632.1		251.5	341.1			119.0
Fe	Iron	0.0		416.3			370.7	27.3		180.5	25.1		25.7
FeI <sub>2</sub>	Iron(II) iodide	-113.0											
FeI <sub>3</sub>	Iron(III) iodide			71.0									
FeMoO <sub>4</sub>	Iron(II) molybdate	-1075.0			-975.0			129.3			118.5		
FeO	Iron(II) oxide	-272.0											
FeO <sub>4</sub> S	Iron(II) sulfate	-928.4			-820.8			107.5			100.6		
FeO <sub>4</sub> W	Iron(II) tungstate	-1155.0			-1054.0			131.8			114.6		
FeS	Iron(II) sulfide	-100.0			-100.4			60.3			50.5		
FeS <sub>2</sub>	Iron disulfide	-178.2			-166.9			52.9			62.2		
Fe <sub>2</sub> O <sub>3</sub>	Iron(III) oxide	-824.2			-742.2			87.4			103.9		
Fe <sub>2</sub> O <sub>4</sub> Si	Iron(II) orthosilicate	-1479.9			-1379.0			145.2			132.9		
Fe <sub>3</sub> O <sub>4</sub>	Iron(II,III) oxide	-1118.4			-1015.4			146.4			143.4		
Fm	Fermium	0.0											
Fr	Francium	0.0						95.4					
Ga	Gallium	0.0	5.6	272.0	0.0		233.7	40.8		169.0	26.1		25.3
GaH <sub>3</sub> O <sub>3</sub>	Gallium(III) hydroxide	-964.4			-831.3			100.0					
GaI <sub>3</sub>	Gallium(III) iodide	-238.9						205.0			100.0		
GaN	Gallium nitride	-110.5											
GaO	Gallium monoxide			279.5			253.5			231.1			32.1
GaP	Gallium phosphide	-88.0											
GaSb	Gallium antimonide	-41.8			-38.9			76.1			48.5		
Ga <sub>2</sub>	Digallium			438.5									
Ga <sub>2</sub> O	Gallium suboxide	-356.0											
Ga <sub>2</sub> O <sub>3</sub>	Gallium(III) oxide	-1089.1			-998.3			85.0			92.1		
Gd	Gadolinium	0.0		397.5			359.8	68.1		194.3	37.0		27.5
Gd <sub>2</sub> O <sub>3</sub>	Gadolinium(III) oxide	-1819.6									106.7		
Ge	Germanium	0.0		372.0			331.2	31.1		167.9	23.3		30.7
GeH <sub>3</sub> I	Iodogermane									283.2			57.5
GeH <sub>4</sub>	Germane			90.8			113.4			217.1			45.0
GeI <sub>4</sub>	Germanium(IV) iodide	-141.8		-56.9	-144.3		-106.3	271.1		428.9			104.1
GeO	Germanium(II) oxide	-261.9		-46.2	-237.2		-73.2	50.0		224.3			30.9
GeO <sub>2</sub>	Germanium(IV) oxide	-580.0			-521.4			39.7			52.1		

Molecular formula	Name	$\Delta_f H^\circ/\text{kJ mol}^{-1}$			$\Delta_f G^\circ/\text{kJ mol}^{-1}$			$S^\circ/\text{J mol}^{-1} \text{K}^{-1}$			$C_p/\text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
GeP	Germanium phosphide	-21.0			-17.0			63.0					
GeS	Germanium(II) sulfide	-69.0		92.0	-71.5		42.0	71.0		234.0			33.7
GeTe	Germanium(II) telluride	20.0											
Ge <sub>2</sub>	Digermanium			473.1			416.3			252.8			35.6
Ge <sub>2</sub> H <sub>6</sub>	Digermene		137.3	162.3									
Ge <sub>3</sub> H <sub>8</sub>	Trigermene		193.7	226.8									
H	Hydrogen (atomic)			218.0			203.3			114.7			20.8
HI	Hydrogen iodide			26.5			1.7			206.6			29.2
HIO <sub>3</sub>	Iodic acid	-230.1											
HK	Potassium hydride	-57.7											
HKO	Potassium hydroxide	-424.6		-228.0	-378.7		-229.7	78.9		238.3	64.9		49.2
HKO <sub>4</sub> S	Potassium hydrogen sulfate	-1160.6			-1031.3			138.1					
HLi	Lithium hydride	-90.5			-68.3			20.0			27.9		
HLiO	Lithium hydroxide	-484.9			-439.0			42.8			49.7		
HN	Imidogen			351.5			345.6			181.2			29.2
HNO <sub>2</sub>	Nitrous acid			-79.5			-46.0			254.1			45.6
HNO <sub>3</sub>	Nitric acid		-174.1	-133.9		-80.7	-73.5		155.6	266.9		109.9	54.1
HN <sub>3</sub>	Hydrazoic acid		264.0	294.1		327.3	328.1		140.6	239.0			43.7
HNa	Sodium hydride	-56.3			-33.5			40.0			36.4		
HNaO	Sodium hydroxide	-425.6			-379.5			64.5			59.5		
HNaO <sub>4</sub> S	Sodium hydrogen sulfate	-1125.5			-992.8			113.0					
HNa <sub>2</sub> O <sub>4</sub> P	Sodium hydrogen phosphate	-1748.1			-1608.2			150.5			135.3		
HO	Hydroxyl			39.0			34.2			183.7			29.9
HORb	Rubidium hydroxide	-418.2											
HOTl	Thallium(I) hydroxide	-238.9			-195.8			88.0					
HO <sub>2</sub>	Hydroperoxy			10.5			22.6			229.0			34.9
HO <sub>3</sub> P	Metaphosphoric acid	-948.5											
HO <sub>4</sub> RbS	Rubidium hydrogen sulfate	-1159.0											
HO <sub>4</sub> Re	Perrhenic acid	-762.3			-656.4			158.2					
HRb	Rubidium hydride	-52.3											
HS	Mercapto			142.7			113.3			195.7			32.3
HSi	Silylydine			361.0									
HTa <sub>2</sub>	Tantalum hydride	-32.6			-69.0			79.1			90.8		
H <sub>2</sub>	Hydrogen			0.0						130.7			28.8
H <sub>2</sub> KN	Potassium amide	-128.9											
H <sub>2</sub> KO <sub>4</sub> P	Potassium dihydrogen phosphate	-1568.3			-1415.9			134.9			116.6		
H <sub>2</sub> LiN	Lithium amide	-179.5											
H <sub>2</sub> Mg	Magnesium hydride	-75.3			-35.9			31.1			35.4		
H <sub>2</sub> MgO <sub>2</sub>	Magnesium hydroxide	-924.5			-833.5			63.2			77.0		
H <sub>2</sub> N	Amidogen			184.9			194.6			195.0			33.9
H <sub>2</sub> NNa	Sodium amide	-123.8			-64.0			76.9			66.2		
H <sub>2</sub> NRb	Rubidium amide	-113.0											
H <sub>2</sub> N <sub>2</sub> O <sub>2</sub>	Nitramide	-89.5											
H <sub>2</sub> NiO <sub>2</sub>	Nickel(II) hydroxide	-529.7			-447.2			88.0					

Molecular formula	Name	$\Delta_f H^\circ/\text{kJ mol}^{-1}$			$\Delta_f G^\circ/\text{kJ mol}^{-1}$			$S^\circ/\text{J mol}^{-1} \text{K}^{-1}$			$C_p/\text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
H <sub>2</sub> O	Water		-285.8	-241.8		-237.1	-228.6		70.0	188.8		75.3	33.6
H <sub>2</sub> O <sub>2</sub>	Hydrogen peroxide		-187.8	-136.3		-120.4	-105.6		109.6	232.7		89.1	43.1
H <sub>2</sub> O <sub>2</sub> Sn	Tin(II) hydroxide	-561.1			-491.6			155.0					
H <sub>2</sub> O <sub>2</sub> Sr	Strontium hydroxide	-959.0											
H <sub>2</sub> O <sub>2</sub> Zn	Zinc hydroxide	-641.9			-553.5			81.2					
H <sub>2</sub> O <sub>3</sub> Si	Metasilicic acid	-1188.7			-1092.4			134.0					
H <sub>2</sub> O <sub>4</sub> S	Sulfuric acid		-814.0			-690.0			156.9			138.9	
H <sub>2</sub> O <sub>4</sub> Se	Selenic acid	-530.1											
H <sub>2</sub> S	Hydrogen sulfide			-20.6			-33.4			205.8			34.2
H <sub>2</sub> S <sub>2</sub>	Hydrogen disulfide		-18.1	15.5							84.1		51.5
H <sub>2</sub> Se	Hydrogen selenide			29.7			15.9			219.0			34.7
H <sub>2</sub> Sr	Strontium hydride	-180.3											
H <sub>2</sub> Te	Hydrogen telluride			99.6									
H <sub>2</sub> Th	Thorium hydride	-139.7			-100.0			50.7			36.7		
H <sub>2</sub> Zr	Zirconium(II) hydride	-169.0			-128.8			35.0			31.0		
H <sub>3</sub> Si	Iodosilane									270.9			54.4
H <sub>3</sub> N	Ammonia			-45.9			-16.4			192.8			35.1
H <sub>3</sub> NO	Hydroxylamine	-114.2											
H <sub>3</sub> O <sub>2</sub> P	Hypophosphorous acid	-604.6	-595.4										
H <sub>3</sub> O <sub>3</sub> P	Phosphorous acid	-964.4											
H <sub>3</sub> O <sub>4</sub> P	Phosphoric acid (orthophosphoric acid)	-1284.4	-1271.7		-1124.3	-1123.6		110.5	150.8		106.1	145.0	
H <sub>3</sub> P	Phosphine			5.4			13.4			210.2			37.1
H <sub>3</sub> Sb	Stibine			145.1			147.8			232.8			41.1
H <sub>3</sub> U	Uranium(III) hydride	-127.2			-72.8			63.7			49.3		
H <sub>4</sub> IN	Ammonium iodide	-201.4			-112.5			117.0					
H <sub>4</sub> N <sub>2</sub>	Hydrazine		50.6	95.4		149.3	159.4		121.2	238.5		98.9	48.4
H <sub>4</sub> N <sub>2</sub> O <sub>2</sub>	Ammonium nitrite	-256.5											
H <sub>4</sub> N <sub>2</sub> O <sub>3</sub>	Ammonium nitrate	-365.6			-183.9			151.1			139.3		
H <sub>4</sub> N <sub>4</sub>	Ammonium azide	115.5			274.2			112.5					
H <sub>4</sub> O <sub>4</sub> Si	Orthosilicic acid	-1481.1			-1332.9			192.0					
H <sub>4</sub> O <sub>7</sub> P <sub>2</sub>	Pyrophosphoric acid	-2241.0	-2231.7										
H <sub>4</sub> P <sub>2</sub>	Diphosphine		-5.0	20.9									
H <sub>4</sub> Si	Silane			34.3			56.9			204.6			42.8
H <sub>4</sub> Sn	Stannane			162.8			188.3			227.7			49.0
H <sub>5</sub> NO	Ammonium hydroxide		-361.2			-254.0			165.6			154.9	
H <sub>5</sub> NO <sub>3</sub> S	Ammonium hydrogen sulfite	-768.6											
H <sub>5</sub> NO <sub>4</sub> S	Ammonium hydrogen sulfate	-1027.0											
H <sub>6</sub> Si <sub>2</sub>	Disilane			80.3			127.3			272.7			80.8
H <sub>8</sub> N <sub>2</sub> O <sub>4</sub> S	Ammonium sulfate	-1180.9			-901.7			220.1			187.5		
H <sub>8</sub> Si <sub>3</sub>	Trisilane		92.5	120.9									
H <sub>9</sub> N <sub>2</sub> O <sub>4</sub> P	Diammonium hydrogen phosphate	-1566.9									188.0		
H <sub>12</sub> N <sub>3</sub> O <sub>4</sub> P	Ammonium phosphate	-1671.9											
He	Helium			0.0						126.2			20.8

STANDARD THERMODYNAMIC PROPERTIES OF CHEMICAL SUBSTANCES (continued)

Molecular formula	Name	$\Delta_f H^\circ/\text{kJ mol}^{-1}$			$\Delta_f G^\circ/\text{kJ mol}^{-1}$			$S^\circ/\text{J mol}^{-1} \text{K}^{-1}$			$C_p/\text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
Hf	Hafnium	0.0		619.2			576.5	43.6		186.9	25.7		20.8
HfO <sub>2</sub>	Hafnium oxide	-1144.7			-1088.2			59.3			60.3		
Hg	Mercury		0.0	61.4			31.8		75.9	175.0		28.0	20.8
HgI <sub>2</sub>	Mercury(II) iodide	-105.4			-101.7			180.0					
HgO	Mercury(II) oxide	-90.8			-58.5			70.3			44.1		
HgO <sub>4</sub> S	Mercury(II) sulfate	-707.5											
HgS	Mercury(II) sulfide	-58.2			-50.6			82.4			48.4		
HgTe	Mercury(II) telluride	-42.0											
Hg <sub>2</sub>	Dimercury			108.8			68.2			288.1			37.4
Hg <sub>2</sub> I <sub>2</sub>	Mercury(I) iodide	-121.3			-111.0			233.5					
Hg <sub>2</sub> O <sub>4</sub> S	Mercury(I) sulfate	-743.1			-625.8			200.7			132.0		
Ho	Holmium	0.0		300.8			264.8	75.3		195.6	27.2		20.8
Ho <sub>2</sub> O <sub>3</sub>	Holmium oxide	-1880.7			-1791.1			158.2			115.0		
I	Iodine (atomic)			106.8			70.2			180.8			20.8
IIn	Indium(I) iodide	-116.3		7.5	-120.5		-37.7	130.0		267.3			36.8
IK	Potassium iodide	-327.9			-324.9			106.3			52.9		
IKO <sub>3</sub>	Potassium iodate	-501.4			-418.4			151.5			106.5		
IKO <sub>4</sub>	Potassium periodate	-467.2			-361.4			175.7					
ILi	Lithium iodide	-270.4			-270.3			86.8			51.0		
INa	Sodium iodide	-287.8			-286.1			98.5			52.1		
INaO <sub>3</sub>	Sodium iodate	-481.8									92.0		
INaO <sub>4</sub>	Sodium periodate	-429.3			-323.0			163.0					
IO	Iodine monoxide			175.1			149.8			245.5			32.9
IRb	Rubidium iodide	-333.8			-328.9			118.4			53.2		
ITl	Thallium(I) iodide	-123.8		7.1	-125.4			127.6					
I <sub>2</sub>	Iodine (rhombic)	0.0		62.4			19.3	116.1		260.7	54.4		36.9
I <sub>2</sub> Mg	Magnesium iodide	-364.0			-358.2			129.7					
I <sub>2</sub> Ni	Nickel(II) iodide	-78.2											
I <sub>2</sub> Pb	Lead(II) iodide	-175.5			-173.6			174.9			77.4		
I <sub>2</sub> Sn	Tin(II) iodide	-143.5											
I <sub>2</sub> Sr	Strontium iodide	-558.1									81.6		
I <sub>2</sub> Zn	Zinc iodide	-208.0			-209.0			161.1					
I <sub>3</sub> In	Indium(III) iodide	-238.0		-120.5									
I <sub>3</sub> La	Lanthanum iodide	-668.9											
I <sub>3</sub> Lu	Lutetium iodide	-548.0											
I <sub>3</sub> P	Phosphorus(III) iodide	-45.6								374.4			78.4
I <sub>3</sub> Ru	Ruthenium(III) iodide	-65.7											
I <sub>3</sub> Sb	Antimony(III) iodide	-100.4											
I <sub>4</sub> Pt	Platinum(IV) iodide	-72.8											
I <sub>4</sub> Si	Tetraiodosilane	-189.5											
I <sub>4</sub> Sn	Tin(IV) iodide									446.1	84.9		105.4
I <sub>4</sub> Ti	Titanium(IV) iodide	-375.7		-277.8	-371.5			249.4			125.7		
I <sub>4</sub> V	Vanadium(IV) iodide			-122.6									
I <sub>4</sub> Zr	Zirconium(IV) iodide	-481.6											
In	Indium	0.0		243.3			208.7	57.8		173.8	26.7		20.8

STANDARD THERMODYNAMIC PROPERTIES OF CHEMICAL SUBSTANCES (continued)

Molecular formula	Name	$\Delta_f H^\circ/\text{kJ mol}^{-1}$			$\Delta_f G^\circ/\text{kJ mol}^{-1}$			$S^\circ/\text{J mol}^{-1} \text{K}^{-1}$			$C_p/\text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
InO	Indium monoxide			387.0			364.4			236.5			32.6
InP	Indium phosphide	-88.7			-77.0			59.8			45.4		
InS	Indium(II) sulfide	-138.1		238.0	-131.8			67.0					
InSb	Indium antimonide	-30.5		344.3	-25.5			86.2			49.5		
In <sub>2</sub>	Diindium			380.9									
In <sub>2</sub> O <sub>3</sub>	Indium(III) oxide	-925.8			-830.7			104.2			92.0		
In <sub>2</sub> S <sub>3</sub>	Indium(III) sulfide	-427.0			-412.5			163.6			118.0		
Ir	Iridium	0.0		665.3			617.9	35.5		193.6	25.1		20.8
IrO <sub>2</sub>	Iridium(IV) oxide	-274.1									57.3		
IrS <sub>2</sub>	Iridium(IV) sulfide	-138.0											
Ir <sub>2</sub> S <sub>3</sub>	Iridium(III) sulfide	-234.0											
K	Potassium	0.0		89.0			60.5	64.7		160.3	29.6		20.8
KMnO <sub>4</sub>	Potassium permanganate	-837.2			-737.6			171.7			117.6		
KNO <sub>2</sub>	Potassium nitrite	-369.8			-306.6			152.1			107.4		
KNO <sub>3</sub>	Potassium nitrate	-494.6			-394.9			133.1			96.4		
KNa	Potassium sodium		6.3										
KO <sub>2</sub>	Potassium superoxide	-284.9			-239.4			116.7			77.5		
K <sub>2</sub>	Dipotassium			123.7			87.5			249.7			37.9
K <sub>2</sub> O	Potassium oxide	-361.5											
K <sub>2</sub> O <sub>2</sub>	Potassium peroxide	-494.1			-425.1			102.1					
K <sub>2</sub> O <sub>4</sub> S	Potassium sulfate	-1437.8			-1321.4			175.6			131.5		
K <sub>2</sub> S	Potassium sulfide	-380.7			-364.0			105.0					
K <sub>3</sub> O <sub>4</sub> P	Potassium phosphate	-1950.2											
Kr	Krypton			0.0						164.1			20.8
La	Lanthanum	0.0		431.0			393.6	56.9		182.4	27.1		22.8
LaS	Lanthanum sulfide	-456.0			-451.5			73.2			59.0		
La <sub>2</sub> O <sub>3</sub>	Lanthanum oxide	-1793.7			-1705.8			127.3			108.8		
Li	Lithium	0.0		159.3			126.6	29.1		138.8	24.8		20.8
LiNO <sub>2</sub>	Lithium nitrite	-372.4			-302.0			96.0					
LiNO <sub>3</sub>	Lithium nitrate	-483.1			-381.1			90.0					
Li <sub>2</sub>	Dilithium			215.9			174.4			197.0			36.1
Li <sub>2</sub> O	Lithium oxide	-597.9			-561.2			37.6			54.1		
Li <sub>2</sub> O <sub>2</sub>	Lithium peroxide	-634.3											
Li <sub>2</sub> O <sub>3</sub> Si	Lithium metasilicate	-1648.1			-1557.2			79.8			99.1		
Li <sub>2</sub> O <sub>4</sub> S	Lithium sulfate	-1436.5			-1321.7			115.1			117.6		
Li <sub>2</sub> S	Lithium sulfide	-441.4											
Li <sub>3</sub> O <sub>4</sub> P	Lithium phosphate	-2095.8											
Lr	Lawrencium	0.0											
Lu	Lutetium	0.0		427.6			387.8	51.0		184.8	26.9		20.9
Lu <sub>2</sub> O <sub>3</sub>	Lutetium oxide	-1878.2			-1789.0			110.0			101.8		
Md	Mendelevium	0.0											
Mg	Magnesium	0.0		147.1			112.5	32.7		148.6	24.9		20.8
MgN <sub>2</sub> O <sub>6</sub>	Magnesium nitrate	-790.7			-589.4			164.0			141.9		
MgO	Magnesium oxide	-601.6			-569.3			27.0			37.2		
MgO <sub>4</sub> S	Magnesium sulfate	-1284.9			-1170.6			91.6			96.5		

Molecular formula	Name	$\Delta_f H^\circ / \text{kJ mol}^{-1}$			$\Delta_f G^\circ / \text{kJ mol}^{-1}$			$S^\circ / \text{J mol}^{-1} \text{K}^{-1}$			$C_p / \text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
MgO <sub>4</sub> Se	Magnesium selenate	-968.5											
MgS	Magnesium sulfide	-346.0			-341.8			50.3				45.6	
Mg <sub>2</sub>	Dimagnesium			287.7									
Mg <sub>2</sub> O <sub>4</sub> Si	Magnesium orthosilicate	-2174.0			-2055.1			95.1				118.5	
Mn	Manganese	0.0		280.7			238.5	32.0		173.7		26.3	20.8
MnN <sub>2</sub> O <sub>6</sub>	Manganese(II) nitrate	-576.3											
MnNa <sub>2</sub> O <sub>4</sub>	Sodium permanganate	-1156.0											
MnO	Manganese(II) oxide	-385.2			-362.9			59.7				45.4	
MnO <sub>2</sub>	Manganese(IV) oxide	-520.0			-465.1			53.1				54.1	
MnO <sub>3</sub> Si	Manganese(II) metasilicate	-1320.9			-1240.5			89.1				86.4	
MnS	Manganese(II) sulfide	-214.2			-218.4			78.2				50.0	
MnSe	Manganese(II) selenide	-106.7			-111.7			90.8				51.0	
Mn <sub>2</sub> O <sub>3</sub>	Manganese(III) oxide	-959.0			-881.1			110.5				107.7	
Mn <sub>2</sub> O <sub>4</sub> Si	Manganese(II) orthosilicate	-1730.5			-1632.1			163.2				129.9	
Mn <sub>3</sub> O <sub>4</sub>	Manganese(II,III) oxide	-1387.8			-1283.2			155.6				139.7	
Mo	Molybdenum	0.0		658.1			612.5	28.7		182.0		24.1	20.8
MoNa <sub>2</sub> O <sub>4</sub>	Sodium molybdate	-1468.1			-1354.3			159.7				141.7	
MoO <sub>2</sub>	Molybdenum(IV) oxide	-588.9			-533.0			46.3				56.0	
MoO <sub>3</sub>	Molybdenum(VI) oxide	-745.1			-668.0			77.7				75.0	
MoO <sub>4</sub> Pb	Lead(II) molybdate	-1051.9			-951.4			166.1				119.7	
MoS <sub>2</sub>	Molybdenum(IV) sulfide	-235.1			-225.9			62.6				63.6	
N	Nitrogen (atomic)			472.7			455.5			153.3			20.8
NNaO <sub>2</sub>	Sodium nitrite	-358.7			-284.6			103.8					
NNaO <sub>3</sub>	Sodium nitrate	-467.9			-367.0			116.5				92.9	
NO	Nitric oxide			91.3			87.6			210.8			29.9
NO <sub>2</sub>	Nitrogen dioxide			33.2			51.3			240.1			37.2
NO <sub>2</sub> Rb	Rubidium nitrite	-367.4			-306.2			172.0					
NO <sub>3</sub> Rb	Rubidium nitrate	-495.1			-395.8			147.3				102.1	
NO <sub>3</sub> Tl	Thallium(I) nitrate	-243.9			-152.4			160.7				99.5	
NP	Phosphorus nitride	-63.0											
N <sub>2</sub>	Nitrogen			0.0						191.6			29.1
N <sub>2</sub> O	Nitrous oxide			81.6			103.7			220.0			38.6
N <sub>2</sub> O <sub>3</sub>	Nitrogen trioxide		50.3	86.6			142.4			314.7			72.7
N <sub>2</sub> O <sub>4</sub>	Nitrogen tetroxide		-19.5	11.1		97.5	99.8		209.2	304.4		142.7	79.2
N <sub>2</sub> O <sub>4</sub> Sr	Strontium nitrite	-762.3											
N <sub>2</sub> O <sub>5</sub>	Nitrogen pentoxide	-43.1		13.3	113.9		117.1	178.2		355.7		143.1	95.3
N <sub>2</sub> O <sub>6</sub> Pb	Lead(II) nitrate	-451.9											
N <sub>2</sub> O <sub>6</sub> Ra	Radium nitrate	-992.0			-796.1			222.0					
N <sub>2</sub> O <sub>6</sub> Sr	Strontium nitrate	-978.2			-780.0			194.6				149.9	
N <sub>2</sub> O <sub>6</sub> Zn	Zinc nitrate	-483.7											
N <sub>3</sub> Na	Sodium azide	21.7			93.8			96.9				76.6	
N <sub>4</sub> Si <sub>3</sub>	Silicon nitride	-743.5			-642.6			101.3					
Na	Sodium	0.0		107.5			77.0	51.3		153.7		28.2	20.8
NaO <sub>2</sub>	Sodium superoxide	-260.2			-218.4			115.9				72.1	
Na <sub>2</sub>	Disodium			142.1			103.9			230.2			37.6

Molecular formula	Name	$\Delta_f H^\circ / \text{kJ mol}^{-1}$			$\Delta_f G^\circ / \text{kJ mol}^{-1}$			$S^\circ / \text{J mol}^{-1} \text{K}^{-1}$			$C_p / \text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
Na <sub>2</sub> O	Sodium oxide	-414.2			-375.5			75.1			69.1		
Na <sub>2</sub> O <sub>2</sub>	Sodium peroxide	-510.9			-447.7			95.0			89.2		
Na <sub>2</sub> O <sub>3</sub> S	Sodium sulfite	-1100.8			-1012.5			145.9			120.3		
Na <sub>2</sub> O <sub>3</sub> Si	Sodium metasilicate	-1554.9			-1462.8			113.9					
Na <sub>2</sub> O <sub>4</sub> S	Sodium sulfate	-1387.1			-1270.2			149.6			128.2		
Na <sub>2</sub> S	Sodium sulfide	-364.8			-349.8			83.7					
Nb	Niobium	0.0		725.9			681.1	36.4		186.3	24.6		30.2
NbO	Niobium(II) oxide	-405.8			-378.6			48.1			41.3		
NbO <sub>2</sub>	Niobium(IV) oxide	-796.2			-740.5			54.5			57.5		
Nb <sub>2</sub> O <sub>5</sub>	Niobium(V) oxide	-1899.5			-1766.0			137.2			132.1		
Nd	Neodymium	0.0		327.6			292.4	71.5		189.4	27.5		22.1
Nd <sub>2</sub> O <sub>3</sub>	Neodymium oxide	-1807.9			-1720.8			158.6			111.3		
Ne	Neon			0.0						146.3			20.8
Ni	Nickel	0.0		429.7			384.5	29.9		182.2	26.1		23.4
NiO <sub>4</sub> S	Nickel(II) sulfate	-872.9			-759.7			92.0			138.0		
NiS	Nickel(II) sulfide	-82.0			-79.5			53.0			47.1		
Ni <sub>2</sub> O <sub>3</sub>	Nickel(III) oxide	-489.5											
No	Nobelium	0.0											
O	Oxygen (atomic)			249.2			231.7			161.1			21.9
OP	Phosphorus monoxide			-28.5			-51.9			222.8			31.8
OPb	Lead(II) oxide (massicot)	-217.3			-187.9			68.7			45.8		
OPb	Lead(II) oxide (litharge)	-219.0			-188.9			66.5			45.8		
OPd	Palladium(II) oxide	-85.4		348.9			325.9			218.0	31.4		
ORa	Radium oxide	-523.0											
ORb <sub>2</sub>	Rubidium oxide	-339.0											
ORh	Rhodium monoxide			385.0									
OS	Sulfur monoxide			6.3			-19.9			222.0			30.2
OSe	Selenium monoxide			53.4			26.8			234.0			31.3
OSi	Silicon monoxide			-99.6			-126.4			211.6			29.9
OSn	Tin(II) oxide	-280.7		15.1	-251.9		-8.4	57.2		232.1	44.3		31.6
OSr	Strontium oxide	-592.0			-561.9			54.4			45.0		
OTi	Titanium(II) oxide	-519.7			-495.0			50.0			40.0		
OTl <sub>2</sub>	Thallium(I) oxide	-178.7			-147.3			126.0					
OU	Uranium(II) oxide			21.0									
OV	Vanadium(II) oxide	-431.8			-404.2			38.9			45.4		
OZn	Zinc oxide	-350.5			-320.5			43.7			40.3		
O <sub>2</sub>	Oxygen			0.0						205.2			29.4
O <sub>2</sub> P	Phosphorus dioxide			-279.9			-281.6			252.1			39.5
O <sub>2</sub> Pb	Lead(IV) oxide	-277.4			-217.3			68.6			64.6		
O <sub>2</sub> Rb	Rubidium superoxide	-278.7											
O <sub>2</sub> Rb <sub>2</sub>	Rubidium peroxide	-472.0											
O <sub>2</sub> Ru	Ruthenium(IV) oxide	-305.0											
O <sub>2</sub> S	Sulfur dioxide		-320.5	-296.8			-300.1			248.2			39.9
O <sub>2</sub> Se	Selenium dioxide	-225.4											
O <sub>2</sub> Si	Silicon dioxide ( $\alpha$ -quartz)	-910.7		-322.0	-856.3			41.5			44.4		

Molecular formula	Name	$\Delta_f H^\circ/\text{kJ mol}^{-1}$			$\Delta_f G^\circ/\text{kJ mol}^{-1}$			$S^\circ/\text{J mol}^{-1} \text{K}^{-1}$			$C_p/\text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
O <sub>2</sub> Sn	Tin(IV) oxide	-577.6			-515.8			49.0			52.6		
O <sub>2</sub> Te	Tellurium dioxide	-322.6			-270.3			79.5					
O <sub>2</sub> Th	Thorium(IV) oxide	-1226.4			-1169.2			65.2			61.8		
O <sub>2</sub> Ti	Titanium(IV) oxide	-944.0			-888.8			50.6			55.0		
O <sub>2</sub> U	Uranium(IV) oxide	-1085.0		-465.7	-1031.8		-471.5	77.0		274.6	63.6		51.4
O <sub>2</sub> W	Tungsten(IV) oxide	-589.7			-533.9			50.5			56.1		
O <sub>2</sub> Zr	Zirconium(IV) oxide	-1100.6			-1042.8			50.4			56.2		
O <sub>3</sub>	Ozone			142.7			163.2			238.9			39.2
O <sub>3</sub> PbS	Lead(II) sulfite	-669.9											
O <sub>3</sub> PbSi	Lead(II) metasilicate	-1145.7			-1062.1			109.6			90.0		
O <sub>3</sub> Pr <sub>2</sub>	Praseodymium oxide	-1809.6									117.4		
O <sub>3</sub> Rh <sub>2</sub>	Rhodium(III) oxide	-343.0									103.8		
O <sub>3</sub> S	Sulfur trioxide	-454.5	-441.0	-395.7	-374.2	-373.8	-371.1	70.7	113.8	256.8			50.7
O <sub>3</sub> Sc <sub>2</sub>	Scandium oxide	-1908.8			-1819.4			77.0			94.2		
O <sub>3</sub> SiSr	Strontium metasilicate	-1633.9			-1549.7			96.7			88.5		
O <sub>3</sub> Sm <sub>2</sub>	Samarium(III) oxide	-1823.0			-1734.6			151.0			114.5		
O <sub>3</sub> Tb <sub>2</sub>	Terbium oxide	-1865.2									115.9		
O <sub>3</sub> Ti <sub>2</sub>	Titanium(III) oxide	-1520.9			-1434.2			78.8			97.4		
O <sub>3</sub> Tm <sub>2</sub>	Thulium oxide	-1888.7			-1794.5			139.7			116.7		
O <sub>3</sub> U	Uranium(VI) oxide	-1223.8			-1145.7			96.1			81.7		
O <sub>3</sub> V <sub>2</sub>	Vanadium(III) oxide	-1218.8			-1139.3			98.3			103.2		
O <sub>3</sub> W	Tungsten(VI) oxide	-842.9			-764.0			75.9			73.8		
O <sub>3</sub> Y <sub>2</sub>	Yttrium oxide	-1905.3			-1816.6			99.1			102.5		
O <sub>3</sub> Yb <sub>2</sub>	Ytterbium(III) oxide	-1814.6			-1726.7			133.1			115.4		
O <sub>4</sub> Os	Osmium(VIII) oxide	-394.1		-337.2	-304.9		-292.8	143.9		293.8			74.1
O <sub>4</sub> PbS	Lead(II) sulfate	-920.0			-813.0			148.5			103.2		
O <sub>4</sub> PbSe	Lead(II) selenate	-609.2			-504.9			167.8					
O <sub>4</sub> Pb <sub>2</sub> Si	Lead(II) orthosilicate	-1363.1			-1252.6			186.6			137.2		
O <sub>4</sub> Pb <sub>3</sub>	Lead(II,II,IV) oxide	-718.4			-601.2			211.3			146.9		
O <sub>4</sub> RaS	Radium sulfate	-1471.1			-1365.6			138.0					
O <sub>4</sub> Rb <sub>2</sub> S	Rubidium sulfate	-1435.6			-1316.9			197.4			134.1		
O <sub>4</sub> Ru	Ruthenium(VIII) oxide	-239.3			-152.2			146.4					
O <sub>4</sub> SSr	Strontium sulfate	-1453.1			-1340.9			117.0					
O <sub>4</sub> STl <sub>2</sub>	Thallium(I) sulfate	-931.8			-830.4			230.5					
O <sub>4</sub> SZn	Zinc sulfate	-982.8			-871.5			110.5			99.2		
O <sub>4</sub> SiSr <sub>2</sub>	Strontium orthosilicate	-2304.5			-2191.1			153.1			134.3		
O <sub>4</sub> SiZn <sub>2</sub>	Zinc orthosilicate	-1636.7			-1523.2			131.4			123.3		
O <sub>4</sub> SiZr	Zirconium(IV) orthosilicate	-2033.4			-1919.1			84.1			98.7		
O <sub>5</sub> Sb <sub>2</sub>	Antimony(V) oxide	-971.9			-829.2			125.1					
O <sub>5</sub> Ta <sub>2</sub>	Tantalum(V) oxide	-2046.0			-1911.2			143.1			135.1		
O <sub>5</sub> Ti <sub>3</sub>	Titanium(III,IV) oxide	-2459.4			-2317.4			129.3			154.8		
O <sub>5</sub> V <sub>2</sub>	Vanadium(V) oxide	-1550.6			-1419.5			131.0			127.7		
O <sub>5</sub> V <sub>3</sub>	Vanadium(III,IV) oxide	-1933.0			-1803.0			163.0					
O <sub>7</sub> Re <sub>2</sub>	Rhenium(VII) oxide	-1240.1		-1100.0	-1066.0		-994.0	207.1		452.0	166.1		
O <sub>7</sub> U <sub>3</sub>	Uranium(IV,VI) oxide	-3427.1			-3242.9			250.5			215.5		

Molecular formula	Name	$\Delta_f H^\circ / \text{kJ mol}^{-1}$			$\Delta_f G^\circ / \text{kJ mol}^{-1}$			$S^\circ / \text{J mol}^{-1} \text{K}^{-1}$			$C_p / \text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
$\text{O}_8\text{S}_2\text{Zr}$	Zirconium(IV) sulfate	-2217.1									172.0		
$\text{O}_8\text{U}_3$	Uranium(V,VI) oxide	-3574.8			-3369.5			282.6			238.4		
$\text{O}_9\text{U}_4$	Uranium(IV,V) oxide	-4510.4			-4275.1			334.1			293.3		
Os	Osmium	0.0		791.0			745.0	32.6		192.6	24.7		20.8
P	Phosphorus (white)	0.0		316.5			280.1	41.1		163.2	23.8		20.8
P	Phosphorus (red)	-17.6						22.8			21.2		
P	Phosphorus (black)	-39.3											
$\text{P}_2$	Diphosphorus			144.0			103.5			218.1			32.1
$\text{P}_4$	Tetraphosphorus			58.9			24.4			280.0			67.2
Pa	Protactinium	0.0		607.0			563.0	51.9		198.1			22.9
Pb	Lead	0.0		195.2			162.2	64.8		175.4	26.4		20.8
PbS	Lead(II) sulfide	-100.4			-98.7			91.2			49.5		
PbSe	Lead(II) selenide	-102.9			-101.7			102.5			50.2		
PbTe	Lead(II) telluride	-70.7			-69.5			110.0			50.5		
Pd	Palladium	0.0		378.2			339.7	37.6		167.1	26.0		20.8
PdS	Palladium(II) sulfide	-75.0			-67.0			46.0					
Pm	Promethium	0.0								187.1			24.3
Po	Polonium	0.0											
Pr	Praseodymium	0.0		355.6			320.9	73.2		189.8	27.2		21.4
Pt	Platinum	0.0		565.3			520.5	41.6		192.4	25.9		25.5
PtS	Platinum(II) sulfide	-81.6			-76.1			55.1			43.4		
$\text{PtS}_2$	Platinum(IV) sulfide	-108.8			-99.6			74.7			65.9		
Pu	Plutonium	0.0											
Ra	Radium	0.0		159.0			130.0	71.0		176.5			20.8
Rb	Rubidium	0.0		80.9			53.1	76.8		170.1	31.1		20.8
Re	Rhenium	0.0		769.9			724.6	36.9		188.9	25.5		20.8
Rh	Rhodium	0.0		556.9			510.8	31.5		185.8	25.0		21.0
Rn	Radon			0.0						176.2			20.8
Ru	Ruthenium	0.0		642.7			595.8	28.5		186.5	24.1		21.5
S	Sulfur (rhombic)	0.0		277.2			236.7	32.1		167.8	22.6		23.7
S	Sulfur (monoclinic)	0.3											
SSi	Silicon monosulfide			112.5			60.9			223.7			32.3
SSn	Tin(II) sulfide	-100.0			-98.3			77.0			49.3		
SSr	Strontium sulfide	-472.4			-467.8			68.2			48.7		
$\text{STl}_2$	Thallium(I) sulfide	-97.1			-93.7			151.0					
SZn	Zinc sulfide (wurtzite)	-192.6											
SZn	Zinc sulfide (sphalerite)	-206.0			-201.3			57.7			46.0		
$\text{S}_2$	Disulfur			128.6			79.7			228.2			32.5
Sb	Antimony	0.0		262.3			222.1	45.7		180.3	25.2		20.8
$\text{Sb}_2$	Diantimony			235.6			187.0			254.9			36.4
Sc	Scandium	0.0		377.8			336.0	34.6		174.8	25.5		22.1
Se	Selenium	0.0		227.1			187.0	42.4		176.7	25.4		20.8
SeSr	Strontium selenide	-385.8											
$\text{SeTl}_2$	Thallium(I) selenide	-59.0			-59.0			172.0					
SeZn	Zinc selenide	-163.0			-163.0			84.0					

STANDARD THERMODYNAMIC PROPERTIES OF CHEMICAL SUBSTANCES (continued)

Molecular formula	Name	$\Delta_f H^\circ/\text{kJ mol}^{-1}$			$\Delta_f G^\circ/\text{kJ mol}^{-1}$			$S^\circ/\text{J mol}^{-1} \text{K}^{-1}$			$C_p/\text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
Se <sub>2</sub>	Diselenium			146.0			96.2			252.0			35.4
Si	Silicon	0.0		450.0			405.5	18.8		168.0	20.0		22.3
Si <sub>2</sub>	Disilicon			594.0			536.0			229.9			34.4
Sm	Samarium	0.0		206.7			172.8	69.6		183.0	29.5		30.4
Sn	Tin (white)	0.0		301.2			266.2	51.2		168.5	27.0		21.3
Sn	Tin (gray)	-2.1			0.1			44.1			25.8		
Sr	Strontium	0.0		164.4			130.9	55.0		164.6	26.8		20.8
Ta	Tantalum	0.0		782.0			739.3	41.5		185.2	25.4		20.9
Tb	Terbium	0.0		388.7			349.7	73.2		203.6	28.9		24.6
Tc	Technetium	0.0		678.0						181.1			20.8
Te	Tellurium	0.0		196.7			157.1	49.7		182.7	25.7		20.8
Te <sub>2</sub>	Ditellurium			168.2			118.0			268.1			36.7
Th	Thorium	0.0		602.0			560.7	51.8		190.2	27.3		20.8
Ti	Titanium	0.0		473.0			428.4	30.7		180.3	25.0		24.4
Tl	Thallium	0.0		182.2			147.4	64.2		181.0	26.3		20.8
Tm	Thulium	0.0		232.2			197.5	74.0		190.1	27.0		20.8
U	Uranium	0.0		533.0			488.4	50.2		199.8	27.7		23.7
V	Vanadium	0.0		514.2			754.4	28.9		182.3	24.9		26.0
W	Tungsten	0.0		849.4			807.1	32.6		174.0	24.3		21.3
Xe	Xenon			0.0						169.7			20.8
Y	Yttrium	0.0		421.3			381.1	44.4		179.5	26.5		25.9
Yb	Ytterbium	0.0		152.3			118.4	59.9		173.1	26.7		20.8
Zn	Zinc	0.0		130.4			94.8	41.6		161.0	25.4		20.8
Zr	Zirconium	0.0		608.8			566.5	39.0		181.4	25.4		26.7
C	Carbon (graphite)	0.0		716.7			671.3	5.7		158.1	8.5		20.8
C	Carbon (diamond)	1.9			2.9			2.4			6.1		
CAgN	Silver(I) cyanide	146.0			156.9			107.2			66.7		
CAg <sub>2</sub> O <sub>3</sub>	Silver(I) carbonate	-505.8			-436.8			167.4			112.3		
CBaO <sub>3</sub>	Barium carbonate	-1213.0			-1134.4			112.1			86.0		
CBeO <sub>3</sub>	Beryllium carbonate	-1025.0						52.0			65.0		
CBrClF <sub>2</sub>	Bromochlorodifluoro- methane									318.5			74.6
CBrCl <sub>2</sub> F	Bromodichlorofluoro- methane									330.6			80.0
CBrCl <sub>3</sub>	Bromotrichloromethane			-41.1									85.3
CBrF <sub>3</sub>	Bromotrifluoromethane			-648.3									69.3
CBrN	Cyanogen bromide	140.5		186.2			165.3			248.3			46.9
CBrN <sub>3</sub> O <sub>6</sub>	Bromotrinitromethane		32.5	80.3									
CBr <sub>2</sub> ClF	Dibromochlorofluoro- methane									342.8			82.4
CBr <sub>2</sub> Cl <sub>2</sub>	Dibromodichloromethane									347.8			87.1
CBr <sub>2</sub> F <sub>2</sub>	Dibromodifluoromethane									325.3			77.0
CBr <sub>2</sub> O	Carbonyl bromide		-127.2	-96.2			-110.9			309.1			61.8
CBr <sub>3</sub> Cl	Tribromochloromethane									357.8			89.4
CBr <sub>3</sub> F	Tribromofluoromethane									345.9			84.4

Molecular formula	Name	$\Delta_f H^\circ / \text{kJ mol}^{-1}$			$\Delta_f G^\circ / \text{kJ mol}^{-1}$			$S^\circ / \text{J mol}^{-1} \text{K}^{-1}$			$C_p / \text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
CBr <sub>4</sub>	Tetrabromomethane	29.4		83.9	47.7		67.0	212.5		358.1	144.3		91.2
CCaO <sub>3</sub>	Calcium carbonate (calcite)	-1207.6			-1129.1			91.7			83.5		
CCaO <sub>3</sub>	Calcium carbonate (aragonite)	-1207.8			-1128.2			88.0			82.3		
CCdO <sub>3</sub>	Cadmium carbonate	-750.6			-669.4			92.5					
CClFO	Carbonyl chloride fluoride									276.7			52.4
CClF <sub>3</sub>	Chlorotrifluoromethane			-706.3									66.9
CClN	Cyanogen chloride		112.1	138.0			131.0			236.2			45.0
CClN <sub>3</sub> O <sub>6</sub>	Chlorotrinitromethane		-27.1	18.4									
CCl <sub>2</sub> F <sub>2</sub>	Dichlorodifluoromethane			-477.4			-439.4			300.8			72.3
CCl <sub>2</sub> O	Carbonyl chloride			-219.1			-204.9			283.5			57.7
CCl <sub>3</sub>	Trichloromethyl			59.0									
CCl <sub>3</sub> F	Trichlorofluoromethane		-301.3	-268.3		-236.8			225.4			121.6	78.1
CCl <sub>4</sub>	Tetrachloromethane		-128.2	-95.7								130.7	83.3
CCoO <sub>3</sub>	Cobalt(II) carbonate	-713.0											
CCs <sub>2</sub> O <sub>3</sub>	Cesium carbonate	-1139.7			-1054.3			204.5			123.9		
CCuN	Copper(I) cyanide	96.2			111.3			84.5					
CFN	Cyanogen fluoride									224.7			41.8
CF <sub>2</sub> O	Carbonyl fluoride			-639.8									46.8
CF <sub>3</sub>	Trifluoromethyl			-477.0			-464.0			264.5			49.6
CF <sub>3</sub> I	Trifluoroiodomethane			-587.8						307.4			70.9
CF <sub>4</sub>	Tetrafluoromethane			-933.6						261.6			61.1
CFeO <sub>3</sub>	Iron(II) carbonate	-740.6			-666.7			92.9			82.1		
CFe <sub>3</sub>	Iron carbide	25.1			20.1			104.6			105.9		
CH	Methylidyne			595.8									
CHBrClF	Bromochlorofluoromethane									304.3			63.2
CHBrCl <sub>2</sub>	Bromodichloromethane									316.4			67.4
CHBrF <sub>2</sub>	Bromodifluoromethane			-424.9						295.1			58.7
CHBr <sub>2</sub> Cl	Chlorodibromomethane									327.7			69.2
CHBr <sub>2</sub> F	Dibromofluoromethane									316.8			65.1
CHBr <sub>3</sub>	Tribromomethane		-22.3	23.8		-5.0	8.0		220.9			130.7	71.2
CHClF <sub>2</sub>	Chlorodifluoromethane			-482.6						280.9			55.9
CHCl <sub>2</sub> F	Dichlorofluoromethane									293.1			60.9
CHCl <sub>3</sub>	Trichloromethane		-134.1	-102.7		-73.7	6.0		201.7			114.2	65.7
CHCsO <sub>3</sub>	Cesium hydrogen carbonate	-966.1											
CHFO	Formyl fluoride									246.6			39.9
CHF <sub>3</sub>	Trifluoromethane			-695.4						259.7			51.0
CHI <sub>3</sub>	Triiodomethane	-181.1		251.0						356.2			75.0
CHKO <sub>2</sub>	Potassium formate	-679.7											
CHKO <sub>3</sub>	Potassium hydrogen carbonate	-963.2			-863.5			115.5					
CHN	Hydrogen cyanide		108.9	135.1		125.0	124.7		112.8	201.8		70.6	35.9
CHNO	Isocyanic acid (HNCO)									238.0			44.9
CHNS	Isothiocyanic acid			127.6			113.0			247.8			46.9
CHN <sub>3</sub> O <sub>6</sub>	Trinitromethane		-32.8	-0.2									
CHNaO <sub>2</sub>	Sodium formate	-666.5			-599.9			103.8			82.7		

Molecular formula	Name	$\Delta_f H^\circ / \text{kJ mol}^{-1}$			$\Delta_f G^\circ / \text{kJ mol}^{-1}$			$S^\circ / \text{J mol}^{-1} \text{K}^{-1}$			$C_p / \text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
CHNaO <sub>3</sub>	Sodium hydrogen carbonate	-950.8			-851.0			101.7			87.6		
CHO	Oxomethyl (HCO)			43.1			28.0			224.7			34.6
CH <sub>2</sub>	Methylene			390.4			372.9			194.9			33.8
CH <sub>2</sub> BrCl	Bromochloromethane									287.6			52.7
CH <sub>2</sub> BrF	Bromofluoromethane									276.3			49.2
CH <sub>2</sub> Br <sub>2</sub>	Dibromomethane									293.2			54.7
CH <sub>2</sub> ClF	Chlorofluoromethane									264.4			47.0
CH <sub>2</sub> Cl <sub>2</sub>	Dichloromethane		-124.2	-95.4				177.8		270.2		101.2	51.0
CH <sub>2</sub> F <sub>2</sub>	Difluoromethane			-452.3						246.7			42.9
CH <sub>2</sub> I <sub>2</sub>	Diiodomethane		68.5	119.5		90.4	95.8		174.1	309.7		134.0	57.7
CH <sub>2</sub> N <sub>2</sub>	Diazomethane									242.9			52.5
CH <sub>2</sub> N <sub>2</sub>	Cyanamide	58.8											
CH <sub>2</sub> N <sub>2</sub> O <sub>4</sub>	Dinitromethane		-104.9	-58.9									
CH <sub>2</sub> O	Formaldehyde			-108.6			-102.5			218.8			35.4
(CH <sub>2</sub> O) <sub>x</sub>	Paraformaldehyde	-177.6											
CH <sub>2</sub> O <sub>2</sub>	Formic acid		-425.0	-378.7		-361.4			129.0			99.0	
CH <sub>2</sub> S <sub>3</sub>	Trithiocarbonic acid		24.0										
CH <sub>3</sub>	Methyl			145.7			147.9			194.2			38.7
CH <sub>3</sub> BO	Borane carbonyl			-111.2			-92.9			249.4			59.5
CH <sub>3</sub> Br	Bromomethane		-59.8	-35.4			-26.3			246.4			42.4
CH <sub>3</sub> Cl	Chloromethane			-81.9						234.6			40.8
CH <sub>3</sub> F	Fluoromethane									222.9			37.5
CH <sub>3</sub> I	Iodomethane		-13.6	14.4				163.2		254.1		126.0	44.1
CH <sub>3</sub> NO	Formamide		-254.0	-193.9									
CH <sub>3</sub> NO <sub>2</sub>	Nitromethane		-112.6	-74.3		-14.4	-6.8		171.8	275.0		106.6	57.3
CH <sub>3</sub> NO <sub>2</sub>	Methyl nitrite			-66.1									
CH <sub>3</sub> NO <sub>3</sub>	Methyl nitrate		-156.3	-122.4		-43.4	-39.2		217.1	318.5		157.3	
CH <sub>4</sub>	Methane			-74.6			-50.5			186.3			35.7
CH <sub>4</sub> N <sub>2</sub>	Ammonium cyanide	0.4									134.0		
CH <sub>4</sub> N <sub>2</sub> O	Urea	-333.1		-245.8									
CH <sub>4</sub> N <sub>2</sub> S	Thiourea	-89.1		22.9									
CH <sub>4</sub> N <sub>4</sub> O <sub>2</sub>	Nitroguanidine	-92.4											
CH <sub>4</sub> O	Methanol		-239.2	-201.0		-166.6	-162.3		126.8	239.9		81.1	44.1
CH <sub>4</sub> S	Methanethiol		-46.7	-22.9		-7.7	-9.3		169.2	255.2		90.5	50.3
CH <sub>5</sub> N	Methylamine		-47.3	-22.5		35.7	32.7		150.2	242.9		102.1	50.1
CH <sub>5</sub> NO <sub>3</sub>	Ammonium hydrogen carbonate	-849.4			-665.9			120.9					
CH <sub>5</sub> N <sub>3</sub>	Guanidine	-56.0											
CH <sub>5</sub> N <sub>3</sub> S	Hydrazinecarbothioamide	24.7											
CH <sub>5</sub> N <sub>3</sub> O <sub>2</sub>	3-Amino-1-nitroguanidine	22.1											
CH <sub>6</sub> ClN	Methylamine hydrochloride	-298.1											
CH <sub>6</sub> N <sub>2</sub>	Methylhydrazine		54.2	94.7		180.0	187.0		165.9	278.8		134.9	71.1
CH <sub>6</sub> Si	Methylsilane									256.5			65.9
CHg <sub>2</sub> O <sub>3</sub>	Mercury(I) carbonate	-553.5			-468.1			180.0					
CIN	Cyanogen iodide	166.2		225.5	185.0		196.6	96.2		256.8			48.3

STANDARD THERMODYNAMIC PROPERTIES OF CHEMICAL SUBSTANCES (continued)

Molecular formula	Name	$\Delta_f H^\circ/\text{kJ mol}^{-1}$			$\Delta_f G^\circ/\text{kJ mol}^{-1}$			$S^\circ/\text{J mol}^{-1} \text{K}^{-1}$			$C_p/\text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
Cl <sub>4</sub>	Tetraiodomethane	-392.9		474.0					391.9				95.9
CKN	Potassium cyanide	-113.0			-101.9			128.5			66.3		
CKNS	Potassium thiocyanate	-200.2			-178.3			124.3			88.5		
CK <sub>2</sub> O <sub>3</sub>	Potassium carbonate	-1151.0			-1063.5			155.5			114.4		
CLi <sub>2</sub> O <sub>3</sub>	Lithium carbonate	-1215.9			-1132.1			90.4			99.1		
CMgO <sub>3</sub>	Magnesium carbonate	-1095.8			-1012.1			65.7			75.5		
CMnO <sub>3</sub>	Manganese(II) carbonate	-894.1			-816.7			85.8			81.5		
CN	Cyanide			437.6			407.5		202.6				29.2
CNNa	Sodium cyanide	-87.5			-76.4			115.6			70.4		
CNNaO	Sodium cyanate	-405.4			-358.1			96.7			86.6		
CN <sub>4</sub> O <sub>8</sub>	Tetranitromethane		38.4	88.3									
CNa <sub>2</sub> O <sub>3</sub>	Sodium carbonate	-1130.7			-1044.4			135.0			112.3		
CO	Carbon monoxide			-110.5			-137.2			197.7			29.1
COS	Carbon oxysulfide			-142.0			-169.2			231.6			41.5
CO <sub>2</sub>	Carbon dioxide			-393.5			-394.4			213.8			37.1
CO <sub>3</sub> Pb	Lead(II) carbonate	-699.1			-625.5			131.0			87.4		
CO <sub>3</sub> Rb <sub>2</sub>	Rubidium carbonate	-1136.0			-1051.0			181.3			117.6		
CO <sub>3</sub> Sr	Strontium carbonate	-1220.1			-1140.1			97.1			81.4		
CO <sub>3</sub> Tl <sub>2</sub>	Thallium(I) carbonate	-700.0			-614.6			155.2					
CO <sub>3</sub> Zn	Zinc carbonate	-812.8			-731.5			82.4			79.7		
CS	Carbon sulfide			234.0			184.0			210.6			29.8
CS <sub>2</sub>	Carbon disulfide		89.0	116.7		64.6	67.1		151.3	237.8		76.4	45.4
CSe <sub>2</sub>	Carbon diselenide		164.8										
CSi	Silicon carbide (cubic)	-65.3			-62.8			16.6			26.9		
CSi	Silicon carbide (hexagonal)	-62.8			-60.2			16.5			26.7		
C <sub>2</sub>	Dicarbon			831.9			775.9			199.4			43.2
C <sub>2</sub> BrF <sub>5</sub>	Bromopentafluoroethane			-1064.4									
C <sub>2</sub> Br <sub>2</sub> ClF <sub>3</sub>	1,2-Dibromo-1-chloro- 1,2,2-trifluoroethane		-691.7	-656.6									
C <sub>2</sub> Br <sub>2</sub> F <sub>4</sub>	1,2-Dibromotetrafluoro- ethane		-817.7	-789.1									
C <sub>2</sub> Br <sub>4</sub>	Tetrabromoethylene									387.1			102.7
C <sub>2</sub> Br <sub>6</sub>	Hexabromoethane									441.9			139.3
C <sub>2</sub> Ca	Calcium carbide	-59.8			-64.9			70.0			62.7		
C <sub>2</sub> CaN <sub>2</sub>	Calcium cyanide	-184.5											
C <sub>2</sub> CaO <sub>4</sub>	Calcium oxalate	-1360.6											
C <sub>2</sub> ClF <sub>3</sub>	Chlorotrifluoroethylene		-522.7	-505.5			-523.8			322.1			83.9
C <sub>2</sub> ClF <sub>5</sub>	Chloropentafluoroethane			-1118.8									184.2
C <sub>2</sub> Cl <sub>2</sub> F <sub>4</sub>	1,2-Dichlorotetrafluoro- ethane		-960.2	-937.0								111.7	
C <sub>2</sub> Cl <sub>2</sub> O <sub>2</sub>	Ethanedioyl dichloride		-367.6	-335.8									
C <sub>2</sub> Cl <sub>3</sub> F <sub>3</sub>	1,1,2-Trichlorotrifluoro- ethane		-745.0	-716.8								170.1	
C <sub>2</sub> Cl <sub>3</sub> N	Trichloroacetonitrile									336.6			96.1
C <sub>2</sub> Cl <sub>4</sub>	Tetrachloroethylene		-50.6	-10.9		3.0			266.9			143.4	

Molecular formula	Name	$\Delta_f H^\circ / \text{kJ mol}^{-1}$			$\Delta_f G^\circ / \text{kJ mol}^{-1}$			$S^\circ / \text{J mol}^{-1} \text{K}^{-1}$			$C_p / \text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>2</sub> Cl <sub>4</sub> F <sub>2</sub>	1,1,1,2-Tetrachloro-2,2-difluoroethane			-489.9			-407.0			382.9			123.4
C <sub>2</sub> Cl <sub>4</sub> F <sub>2</sub>	1,1,1,2,2-Tetrachloro-1,2-difluoroethane											173.6	
C <sub>2</sub> Cl <sub>4</sub> O	Trichloroacetyl chloride		-280.8	-239.8									
C <sub>2</sub> Cl <sub>6</sub>	Hexachloroethane	-202.8		-143.6				237.3				198.2	
C <sub>2</sub> F <sub>3</sub> N	Trifluoroacetonitrile			-497.9						298.1			77.9
C <sub>2</sub> F <sub>4</sub>	Tetrafluoroethylene	-820.5		-658.9						300.1			80.5
C <sub>2</sub> F <sub>6</sub>	Hexafluoroethane			-1344.2						332.3			106.7
C <sub>2</sub> HBr	Bromoacetylene									253.7			55.7
C <sub>2</sub> HBrClF <sub>3</sub>	1-Bromo-2-chloro-1,1,2-trifluoroethane		-675.3	-644.8									
C <sub>2</sub> HBrClF <sub>3</sub>	2-Bromo-2-chloro-1,1,1-trifluoroethane		-720.0	-690.4									
C <sub>2</sub> HCl	Chloroacetylene									242.0			54.3
C <sub>2</sub> HClF <sub>2</sub>	1-Chloro-2,2-difluoroethylene			-315.5			-289.1			303.0			72.1
C <sub>2</sub> HCl <sub>2</sub> F	1,1-Dichloro-2-fluoroethylene									313.9			76.5
C <sub>2</sub> HCl <sub>2</sub> F <sub>3</sub>	2,2-Dichloro-1,1,1-trifluoroethane											352.8	102.5
C <sub>2</sub> HCl <sub>3</sub>	Trichloroethylene		-43.6	-9.0					228.4	324.8		124.4	80.3
C <sub>2</sub> HCl <sub>3</sub> O	Trichloroacetaldehyde		-234.5	-196.6								151.0	
C <sub>2</sub> HCl <sub>3</sub> O	Dichloroacetyl chloride		-280.4	-241.0									
C <sub>2</sub> HCl <sub>3</sub> O <sub>2</sub>	Trichloroacetic acid	-503.3											
C <sub>2</sub> HCl <sub>5</sub>	Pentachloroethane		-187.6	-142.0								173.8	
C <sub>2</sub> HF	Fluoroacetylene									231.7			52.4
C <sub>2</sub> HF <sub>3</sub>	Trifluoroethylene			-490.5									
C <sub>2</sub> HF <sub>3</sub> O <sub>2</sub>	Trifluoroacetic acid		-1069.9	-1031.4									
C <sub>2</sub> HF <sub>5</sub>	Pentafluoroethane			-1100.4									
C <sub>2</sub> H <sub>2</sub>	Acetylene			227.4			209.9			200.9			44.0
C <sub>2</sub> H <sub>2</sub> BrF <sub>3</sub>	2-Bromo-1,1,1-trifluoroethane			-694.5									
C <sub>2</sub> H <sub>2</sub> Br <sub>2</sub>	<i>cis</i> -1,2-Dibromoethylene									311.3			68.8
C <sub>2</sub> H <sub>2</sub> Br <sub>2</sub>	<i>trans</i> -1,2-Dibromoethylene									313.5			70.3
C <sub>2</sub> H <sub>2</sub> Br <sub>2</sub> Cl <sub>2</sub>	1,2-Dibromo-1,2-dichloroethane			-36.9									
C <sub>2</sub> H <sub>2</sub> Br <sub>4</sub>	1,1,2,2-Tetrabromoethane											165.7	
C <sub>2</sub> H <sub>2</sub> ClF <sub>3</sub>	2-Chloro-1,1,1-trifluoroethane									326.5			89.1
C <sub>2</sub> H <sub>2</sub> Cl <sub>2</sub>	1,1-Dichloroethylene		-23.9	2.8		24.1	25.4		201.5	289.0		111.3	67.1
C <sub>2</sub> H <sub>2</sub> Cl <sub>2</sub>	<i>cis</i> -1,2-Dichloroethylene		-26.4	4.6					198.4	289.6		116.4	65.1
C <sub>2</sub> H <sub>2</sub> Cl <sub>2</sub>	<i>trans</i> -1,2-Dichloroethylene		-24.3	5.0		27.3	28.6		195.9	290.0		116.8	66.7
C <sub>2</sub> H <sub>2</sub> Cl <sub>2</sub> O	Chloroacetyl chloride		-283.7	-244.8									
C <sub>2</sub> H <sub>2</sub> Cl <sub>2</sub> O <sub>2</sub>	Dichloroacetic acid		-496.3										

Molecular formula	Name	$\Delta_f H^\circ / \text{kJ mol}^{-1}$			$\Delta_f G^\circ / \text{kJ mol}^{-1}$			$S^\circ / \text{J mol}^{-1} \text{K}^{-1}$			$C_p / \text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>2</sub> H <sub>2</sub> Cl <sub>3</sub> NO	2,2,2-Trichloroacetamide	-358.0											
C <sub>2</sub> H <sub>2</sub> Cl <sub>4</sub>	1,1,1,2-Tetrachloroethane									356.0			102.7
C <sub>2</sub> H <sub>2</sub> Cl <sub>4</sub>	1,1,2,2-Tetrachloroethane		-195.0	-149.2				246.9		362.8	162.3		100.8
C <sub>2</sub> H <sub>2</sub> F <sub>2</sub>	1,1-Difluoroethylene			-335.0						266.2			60.1
C <sub>2</sub> H <sub>2</sub> F <sub>2</sub>	<i>cis</i> -1,2-Difluoroethylene									268.3			58.2
C <sub>2</sub> H <sub>2</sub> F <sub>3</sub> I	1,1,1-Trifluoro-2-iodoethane			-644.5									
C <sub>2</sub> H <sub>2</sub> I <sub>2</sub>	<i>cis</i> -1,2-Diiodoethylene			-207.4									
C <sub>2</sub> H <sub>2</sub> O	Ketene		-67.9	-47.5			-48.3			247.6			51.8
C <sub>2</sub> H <sub>2</sub> O <sub>2</sub>	Glyoxal			-212.0									
C <sub>2</sub> H <sub>2</sub> O <sub>4</sub>	Oxalic acid	-821.7		-723.7				109.8			91.0		
C <sub>2</sub> H <sub>2</sub> O <sub>4</sub> Sr	Strontium formate	-1393.3											
C <sub>2</sub> H <sub>2</sub> S <sub>2</sub>	Thiirene			300.0			275.8			255.3			54.7
C <sub>2</sub> H <sub>3</sub> Br	Bromoethylene			79.2			81.8			275.8			55.5
C <sub>2</sub> H <sub>3</sub> BrO	Acetyl bromide		-223.5	-190.4									
C <sub>2</sub> H <sub>3</sub> Cl	Chloroethylene	-94.1	14.6	37.2			53.6			264.0	59.4		53.7
C <sub>2</sub> H <sub>3</sub> ClF <sub>2</sub>	1-Chloro-1,1-difluoroethane									307.2			82.5
C <sub>2</sub> H <sub>3</sub> ClO	Acetyl chloride		-272.9	-242.8		-208.0	-205.8		200.8	295.1		117.0	67.8
C <sub>2</sub> H <sub>3</sub> ClO <sub>2</sub>	Chloroacetic acid	-510.5		-435.2									
C <sub>2</sub> H <sub>3</sub> Cl <sub>2</sub> F	1,1-Dichloro-1-fluoroethane									320.2			88.7
C <sub>2</sub> H <sub>3</sub> Cl <sub>3</sub>	1,1,1-Trichloroethane		-177.4	-144.4					227.4	323.1		144.3	93.3
C <sub>2</sub> H <sub>3</sub> Cl <sub>3</sub>	1,1,2-Trichloroethane		-190.8	-151.3					232.6	337.2		150.9	89.0
C <sub>2</sub> H <sub>3</sub> F	Fluoroethylene			-138.8									
C <sub>2</sub> H <sub>3</sub> FO	Acetyl fluoride		-467.2	-442.1									
C <sub>2</sub> H <sub>3</sub> F <sub>3</sub>	1,1,1-Trifluoroethane			-744.6						279.9			78.2
C <sub>2</sub> H <sub>3</sub> F <sub>3</sub>	1,1,2-Trifluoroethane			-730.7									
C <sub>2</sub> H <sub>3</sub> F <sub>3</sub> O	2,2,2-Trifluoroethanol		-932.4	-888.4									
C <sub>2</sub> H <sub>3</sub> I	Iodoethylene									285.0			57.9
C <sub>2</sub> H <sub>3</sub> IO	Acetyl iodide		-163.5	-126.4									
C <sub>2</sub> H <sub>3</sub> KO <sub>2</sub>	Potassium acetate	-723.0											
C <sub>2</sub> H <sub>3</sub> N	Acetonitrile		40.6	74.0		86.5	91.9		149.6	243.4		91.5	52.2
C <sub>2</sub> H <sub>3</sub> N	Isocyanomethane		130.8	163.5		159.5	165.7		159.0	246.9			52.9
C <sub>2</sub> H <sub>3</sub> NO	Methylisocyanate		-92.0										
C <sub>2</sub> H <sub>3</sub> NO <sub>3</sub>	Oxamic acid	-661.2		-552.3									
C <sub>2</sub> H <sub>3</sub> NS	Methyl isothiocyanate	79.4											
C <sub>2</sub> H <sub>3</sub> NaO <sub>2</sub>	Sodium acetate	-708.8						-607.2	123.0		79.9		
C <sub>2</sub> H <sub>4</sub>	Ethylene			52.4			68.4			219.3			42.9
C <sub>2</sub> H <sub>4</sub> BrCl	1-Bromo-2-chloroethane											130.1	
C <sub>2</sub> H <sub>4</sub> Br <sub>2</sub>	1,1-Dibromoethane		-66.2							327.7			80.8
C <sub>2</sub> H <sub>4</sub> Br <sub>2</sub>	1,2-Dibromoethane		-79.2	-37.5					223.3			136.0	
C <sub>2</sub> H <sub>4</sub> ClF	1-Chloro-1-fluoroethane			-313.4									
C <sub>2</sub> H <sub>4</sub> Cl <sub>2</sub>	1,1-Dichloroethane		-158.4	-127.7		-73.8	-70.8		211.8	305.1		126.3	76.2
C <sub>2</sub> H <sub>4</sub> Cl <sub>2</sub>	1,2-Dichloroethane		-166.8	-126.4						308.4		128.4	78.7

Molecular formula	Name	$\Delta_f H^\circ/\text{kJ mol}^{-1}$			$\Delta_f G^\circ/\text{kJ mol}^{-1}$			$S^\circ/\text{J mol}^{-1} \text{K}^{-1}$			$C_p/\text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
$\text{C}_2\text{H}_4\text{F}_2$	1,1-Difluoroethane			-497.0					282.5				67.8
$\text{C}_2\text{H}_4\text{I}_2$	1,2-Diiodoethane	9.3		75.0									
$\text{C}_2\text{H}_4\text{N}_2\text{O}_2$	Oxamide	-504.4		-387.1									
$\text{C}_2\text{H}_4\text{N}_2\text{O}_2$	Ethanedial, dioxime	-90.5											
$\text{C}_2\text{H}_4\text{N}_2\text{O}_4$	1,1-Dinitroethane		-148.2										
$\text{C}_2\text{H}_4\text{N}_2\text{O}_4$	1,2-Dinitroethane		-165.2										
$\text{C}_2\text{H}_4\text{N}_2\text{S}_2$	Ethanedithioamide	-20.8		83.0									
$\text{C}_2\text{H}_4\text{N}_4$	1 <i>H</i> -1,2,4-Triazol-3-amine	76.8											
$\text{C}_2\text{H}_4\text{O}$	Acetaldehyde		-192.2	-166.2	-127.6	-133.0		160.2	263.8		89.0	55.3	
$\text{C}_2\text{H}_4\text{O}$	Ethylene oxide		-78.0	-52.6	-11.8	-13.0		153.9	242.5		88.0	47.9	
$\text{C}_2\text{H}_4\text{OS}$	Thioacetic acid		-216.9	-175.1									
$\text{C}_2\text{H}_4\text{O}_2$	Acetic acid		-484.3	-432.2	-389.9	-374.2		159.8	283.5		123.3	63.4	
$\text{C}_2\text{H}_4\text{O}_2$	Methyl formate		-386.1	-357.4					285.3		119.1	64.4	
$\text{C}_2\text{H}_4\text{S}$	Thiirane		51.6	82.0			96.8		255.2			53.3	
$\text{C}_2\text{H}_4\text{Si}$	Ethynylsilane								269.4			72.6	
$\text{C}_2\text{H}_5\text{Br}$	Bromoethane		-90.5	-61.9	-25.8	-23.9		198.7	286.7		100.8	64.5	
$\text{C}_2\text{H}_5\text{Cl}$	Chloroethane		-136.8	-112.1	-59.3	-60.4		190.8	276.0		104.3	62.8	
$\text{C}_2\text{H}_5\text{ClO}$	Ethylene chlorohydrin		-295.4										
$\text{C}_2\text{H}_5\text{F}$	Fluoroethane								264.5			58.6	
$\text{C}_2\text{H}_5\text{I}$	Iodoethane		-40.0	-8.1	14.7	19.2		211.7	306.0		115.1	66.9	
$\text{C}_2\text{H}_5\text{N}$	Ethyleneimine		91.9	126.5									
$\text{C}_2\text{H}_5\text{NO}$	Acetamide	-317.0		-238.3				115.0			91.3		
$\text{C}_2\text{H}_5\text{NO}$	<i>N</i> -Methylformamide											123.8	
$\text{C}_2\text{H}_5\text{NO}_2$	Nitroethane		-143.9	-102.3								134.4	
$\text{C}_2\text{H}_5\text{NO}_2$	Glycine	-528.5		-392.1									
$\text{C}_2\text{H}_5\text{NO}_3$	2-Nitroethanol		-350.7										
$\text{C}_2\text{H}_5\text{NO}_3$	Ethyl nitrate		-190.4	-154.1									
$\text{C}_2\text{H}_5\text{NS}$	Thioacetamide	-71.7		11.4									
$\text{C}_2\text{H}_6$	Ethane			-84.0		-32.0			229.2			52.5	
$\text{C}_2\text{H}_6\text{Cd}$	Dimethyl cadmium		63.6	101.6	139.0	146.9		201.9	303.0		132.0		
$\text{C}_2\text{H}_6\text{Hg}$	Dimethyl mercury		59.8	94.4	140.3	146.1		209.0	306.0			83.3	
$\text{C}_2\text{H}_6\text{N}_2\text{O}$	<i>N</i> -Methylurea	-332.8											
$\text{C}_2\text{H}_6\text{N}_4\text{O}_2$	1,2-Hydrazinedicarboxamide	-498.7											
$\text{C}_2\text{H}_6\text{N}_4\text{O}_2$	Ethanedioic acid, dihydrazide	-295.2											
$\text{C}_2\text{H}_6\text{O}$	Ethanol		-277.6	-234.8	-174.8	-167.9		160.7	281.6		112.3	65.6	
$\text{C}_2\text{H}_6\text{O}$	Dimethyl ether		-203.3	-184.1		-112.6			266.4			64.4	
$\text{C}_2\text{H}_6\text{OS}$	Dimethyl sulfoxide		-204.2	-151.3	-99.9			188.3			153.0		
$\text{C}_2\text{H}_6\text{O}_2$	Ethylene glycol		-460.0	-392.2				163.2	303.8		148.6	82.7	
$\text{C}_2\text{H}_6\text{O}_2\text{S}$	Dimethyl sulfone	-450.1		-373.1	-302.4	-272.7	142.0		310.6			100.0	
$\text{C}_2\text{H}_6\text{O}_3\text{S}$	Dimethyl sulfite		-523.6	-483.4									
$\text{C}_2\text{H}_6\text{O}_4\text{S}$	Dimethyl sulfate		-735.5	-687.0									
$\text{C}_2\text{H}_6\text{S}$	Ethanthiol		-73.6	-46.1	-5.5	-4.8		207.0	296.2		117.9	72.7	
$\text{C}_2\text{H}_6\text{S}$	Dimethyl sulfide		-65.3	-37.4				196.4	286.0		118.1	74.1	
$\text{C}_2\text{H}_6\text{S}_2$	1,2-Ethanedithiol		-54.3	-9.7									
$\text{C}_2\text{H}_6\text{S}_2$	Dimethyl disulfide		-62.6	-24.7				235.4			146.1		

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>2</sub> H <sub>6</sub> Zn	Dimethyl zinc		23.4	53.0				201.6				129.2	
C <sub>2</sub> H <sub>7</sub> N	Ethylamine		-74.1	-47.5			36.3			283.8		130.0	71.5
C <sub>2</sub> H <sub>7</sub> N	Dimethylamine		-43.9	-18.8		70.0	68.5		182.3	273.1		137.7	70.7
C <sub>2</sub> H <sub>7</sub> NO	Ethanolamine											195.5	
C <sub>2</sub> H <sub>8</sub> ClN	Dimethylamine hydrochloride	-289.3											
C <sub>2</sub> H <sub>8</sub> N <sub>2</sub>	1,2-Ethanediamine		-63.0	-18.0								172.6	
C <sub>2</sub> H <sub>8</sub> N <sub>2</sub>	1,1-Dimethylhydrazine		48.9	84.1		206.4			198.0			164.1	
C <sub>2</sub> H <sub>8</sub> N <sub>2</sub>	1,2-Dimethylhydrazine		52.7	92.2									
C <sub>2</sub> H <sub>8</sub> N <sub>2</sub> O <sub>4</sub>	Ammonium oxalate	-1123.0									226.0		
C <sub>2</sub> HgO <sub>4</sub>	Mercury(II) oxalate	-678.2											
C <sub>2</sub> I <sub>2</sub>	Diiodoacetylene									313.1			70.3
C <sub>2</sub> I <sub>4</sub>	Tetraiodoethylene	305.0											
C <sub>2</sub> K <sub>2</sub> O <sub>4</sub>	Potassium oxalate	-1346.0											
C <sub>2</sub> MgO <sub>4</sub>	Magnesium oxalate	-1269.0											
C <sub>2</sub> N <sub>2</sub>	Cyanogen		285.9	306.7						241.9			56.8
C <sub>2</sub> N <sub>4</sub> O <sub>6</sub>	Trinitroacetone		183.7										
C <sub>2</sub> Na <sub>2</sub> O <sub>4</sub>	Sodium oxalate			-1318.0									
C <sub>2</sub> O <sub>4</sub> Pb	Lead(II) oxalate	-851.4			-750.1			146.0				105.4	
C <sub>3</sub> F <sub>8</sub>	Perfluoropropane			-1783.2									
C <sub>3</sub> H <sub>2</sub> N <sub>2</sub>	Malononitrile	186.4		265.5									
C <sub>3</sub> H <sub>2</sub> O <sub>2</sub>	2-Propynoic acid		-193.2										
C <sub>3</sub> H <sub>2</sub> O <sub>3</sub>	1,3-Dioxol-2-one		-459.9	-418.6									
C <sub>3</sub> H <sub>3</sub> Cl <sub>3</sub>	1,2,3-Trichloropropene		-101.8										
C <sub>3</sub> H <sub>3</sub> F <sub>3</sub>	3,3,3-Trifluoropropene			-614.2									
C <sub>3</sub> H <sub>3</sub> N	2-Propenenitrile		147.1	180.6									
C <sub>3</sub> H <sub>3</sub> NO	Oxazole		-48.0	-15.5									
C <sub>3</sub> H <sub>3</sub> NO	Isoxazole		42.1	78.6									
C <sub>3</sub> H <sub>4</sub>	Allene			190.5									
C <sub>3</sub> H <sub>4</sub>	Propyne			184.9									
C <sub>3</sub> H <sub>4</sub>	Cyclopropene			277.1									
C <sub>3</sub> H <sub>4</sub> Cl <sub>2</sub>	2,3-Dichloropropene		-73.3										
C <sub>3</sub> H <sub>4</sub> Cl <sub>4</sub>	1,1,1,3-Tetrachloropropene		-208.7										
C <sub>3</sub> H <sub>4</sub> Cl <sub>4</sub>	1,2,2,3-Tetrachloropropene		-251.8										
C <sub>3</sub> H <sub>4</sub> F <sub>4</sub> O	2,2,3,3-Tetrafluoro-1-propanol		-1114.9	-1061.3									
C <sub>3</sub> H <sub>4</sub> N <sub>2</sub>	1 <i>H</i> -Pyrazole		105.4	179.4									
C <sub>3</sub> H <sub>4</sub> N <sub>2</sub>	Imidazole	49.8		132.9									
C <sub>3</sub> H <sub>4</sub> O <sub>2</sub>	1,2-Propanedione		-309.1	-271.0									
C <sub>3</sub> H <sub>4</sub> O <sub>2</sub>	Propenoic acid		-383.8									145.7	
C <sub>3</sub> H <sub>4</sub> O <sub>2</sub>	2-Oxetanone		-329.9	-282.9					175.3			122.1	
C <sub>3</sub> H <sub>4</sub> O <sub>3</sub>	Ethylene carbonate		-571.5	-508.4								133.9	
C <sub>3</sub> H <sub>5</sub> Br	<i>cis</i> -1-Bromopropene		7.9	40.8									
C <sub>3</sub> H <sub>5</sub> Br	3-Bromopropene		12.2	45.2									
C <sub>3</sub> H <sub>5</sub> BrO	Bromoacetone			-181.0									

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>3</sub> H <sub>5</sub> Cl	2-Chloropropene			-21.0									
C <sub>3</sub> H <sub>5</sub> Cl	3-Chloropropene												125.1
C <sub>3</sub> H <sub>5</sub> ClO	Epichlorohydrin		-148.4	-107.8									131.6
C <sub>3</sub> H <sub>5</sub> ClO <sub>2</sub>	2-Chloropropanoic acid		-522.5	-475.8									
C <sub>3</sub> H <sub>5</sub> ClO <sub>2</sub>	3-Chloropropanoic acid	-549.3											
C <sub>3</sub> H <sub>5</sub> ClO <sub>2</sub>	Ethyl chloroformate		-505.3	-462.9									
C <sub>3</sub> H <sub>5</sub> Cl <sub>3</sub>	1,2,3-Trichloropropane		-230.6	-182.9									183.6
C <sub>3</sub> H <sub>5</sub> I	3-Iodopropene		53.7	91.5									
C <sub>3</sub> H <sub>5</sub> IO	Iodoacetone			-130.5									
C <sub>3</sub> H <sub>5</sub> IO <sub>2</sub>	3-Iodopropanoic acid	-460.0											
C <sub>3</sub> H <sub>5</sub> N	Propanenitrile		15.5	51.7									119.3
C <sub>3</sub> H <sub>5</sub> N	2-Propyn-1-amine		205.7										
C <sub>3</sub> H <sub>5</sub> N	Ethyl isocyanide		108.6	141.7									
C <sub>3</sub> H <sub>5</sub> NO <sub>3</sub>	Nitroacetone		-278.6										
C <sub>3</sub> H <sub>5</sub> NO <sub>4</sub>	Methyl nitroacetate		-464.0										
C <sub>3</sub> H <sub>5</sub> N <sub>3</sub> O <sub>9</sub>	Trinitroglycerol		-370.9	-270.9									
C <sub>3</sub> H <sub>6</sub>	Propene		4.0	20.0									
C <sub>3</sub> H <sub>6</sub>	Cyclopropane		35.2	53.3		104.5			237.5				55.6
C <sub>3</sub> H <sub>6</sub> Br <sub>2</sub>	1,2-Dibromopropane		-113.6	-71.6									
C <sub>3</sub> H <sub>6</sub> Cl <sub>2</sub>	1,2-Dichloropropane		-198.8	-162.8									149.1
C <sub>3</sub> H <sub>6</sub> Cl <sub>2</sub>	1,3-Dichloropropane		-199.9	-159.2									
C <sub>3</sub> H <sub>6</sub> Cl <sub>2</sub>	2,2-Dichloropropane		-205.8	-173.2									
C <sub>3</sub> H <sub>6</sub> Cl <sub>2</sub> O	2,3-Dichloro-1-propanol		-381.5	-316.3									
C <sub>3</sub> H <sub>6</sub> Cl <sub>2</sub> O	1,3-Dichloro-2-propanol		-385.3	-318.4									
C <sub>3</sub> H <sub>6</sub> I <sub>2</sub>	1,2-Diiodopropane			35.6									
C <sub>3</sub> H <sub>6</sub> I <sub>2</sub>	1,3-Diiodopropane		-9.0										
C <sub>3</sub> H <sub>6</sub> N <sub>2</sub> O <sub>2</sub>	Propanediamide	-546.1											
C <sub>3</sub> H <sub>6</sub> N <sub>2</sub> O <sub>2</sub>	<i>N</i> -(Aminocarbonyl)acetamide	-544.2		-441.2									
C <sub>3</sub> H <sub>6</sub> N <sub>2</sub> O <sub>4</sub>	1,1-Dinitropropane		-163.2	-100.7									
C <sub>3</sub> H <sub>6</sub> N <sub>2</sub> O <sub>4</sub>	1,3-Dinitropropane		-207.1										
C <sub>3</sub> H <sub>6</sub> N <sub>2</sub> O <sub>4</sub>	2,2-Dinitropropane		-181.2										
C <sub>3</sub> H <sub>6</sub> O	Allyl alcohol		-171.8	-124.5									138.9
C <sub>3</sub> H <sub>6</sub> O	Propanal		-215.6	-185.6						304.5			80.7
C <sub>3</sub> H <sub>6</sub> O	Acetone		-248.4	-217.1		-152.7			199.8	295.3			126.3
C <sub>3</sub> H <sub>6</sub> O	Methyloxirane		-123.0	-94.7					196.5	286.9			120.4
C <sub>3</sub> H <sub>6</sub> O	Oxetane		-110.8	-80.5									72.6
C <sub>3</sub> H <sub>6</sub> O <sub>2</sub>	Propanoic acid		-510.7	-455.7						191.0			152.8
C <sub>3</sub> H <sub>6</sub> O <sub>2</sub>	Ethyl formate												149.3
C <sub>3</sub> H <sub>6</sub> O <sub>2</sub>	Methyl acetate		-445.9	-413.3						324.4			141.9
C <sub>3</sub> H <sub>6</sub> O <sub>2</sub>	1,3-Dioxolane		-333.5	-298.0									86.0
C <sub>3</sub> H <sub>6</sub> O <sub>2</sub> S	Thiolactic acid		-468.4										118.0
C <sub>3</sub> H <sub>6</sub> O <sub>3</sub>	Trioxane	-522.5		-465.9				133.0				111.4	
C <sub>3</sub> H <sub>6</sub> S	Thiacyclobutane		24.7	60.6			107.1		184.9	285.0			68.3
C <sub>3</sub> H <sub>6</sub> S	Methylthirane		11.3	45.8									

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>3</sub> H <sub>6</sub> S <sub>2</sub>	1,2-Dithiolane			0.0			47.7			313.5			86.5
C <sub>3</sub> H <sub>6</sub> S <sub>2</sub>	1,3-Dithiolane			10.0			54.7			323.3			84.7
C <sub>3</sub> H <sub>7</sub> Br	1-Bromopropane		-121.9	-87.0									
C <sub>3</sub> H <sub>7</sub> Br	2-Bromopropane		-130.5	-99.4									
C <sub>3</sub> H <sub>7</sub> Cl	1-Chloropropane		-160.5	-131.9									
C <sub>3</sub> H <sub>7</sub> Cl	2-Chloropropane		-172.3	-144.9									
C <sub>3</sub> H <sub>7</sub> ClO <sub>2</sub>	3-Chloro-1,2-propanediol		-525.3										
C <sub>3</sub> H <sub>7</sub> ClO <sub>2</sub>	2-Chloro-1,3-propanediol		-517.5										
C <sub>3</sub> H <sub>7</sub> F	1-Fluoropropane			-285.9									
C <sub>3</sub> H <sub>7</sub> F	2-Fluoropropane			-293.5									
C <sub>3</sub> H <sub>7</sub> I	1-Iodopropane		-66.0	-30.0									
C <sub>3</sub> H <sub>7</sub> I	2-Iodopropane		-74.8	-40.3									
C <sub>3</sub> H <sub>7</sub> N	Allylamine		-10.0										
C <sub>3</sub> H <sub>7</sub> N	Cyclopropylamine		45.8	77.0				187.7				147.1	
C <sub>3</sub> H <sub>7</sub> NO	<i>N,N</i> -Dimethylformamide		-239.3	-192.4									150.6
C <sub>3</sub> H <sub>7</sub> NO	Propanamide	-338.2		-259.0									
C <sub>3</sub> H <sub>7</sub> NO <sub>2</sub>	1-Nitropropane		-167.2	-123.8									
C <sub>3</sub> H <sub>7</sub> NO <sub>2</sub>	2-Nitropropane		-180.3	-138.9								170.3	
C <sub>3</sub> H <sub>7</sub> NO <sub>2</sub>	<i>DL</i> -Alanine	-563.6											
C <sub>3</sub> H <sub>7</sub> NO <sub>2</sub>	<i>D</i> -Alanine	-561.2											
C <sub>3</sub> H <sub>7</sub> NO <sub>2</sub>	<i>L</i> -Alanine	-604.0		-465.9									
C <sub>3</sub> H <sub>7</sub> NO <sub>2</sub>	$\beta$ -Alanine	-558.0		-424.0									
C <sub>3</sub> H <sub>7</sub> NO <sub>2</sub>	<i>N</i> -Methylglycine	-513.3		-367.3									
C <sub>3</sub> H <sub>7</sub> NO <sub>2</sub> S	<i>L</i> -Cysteine	-534.1											
C <sub>3</sub> H <sub>7</sub> NO <sub>3</sub>	Propyl nitrate		-214.5	-173.9									
C <sub>3</sub> H <sub>7</sub> NO <sub>3</sub>	Isopropyl nitrate		-229.7	-191.0									
C <sub>3</sub> H <sub>7</sub> NO <sub>3</sub>	<i>DL</i> -Serine	-739.0											
C <sub>3</sub> H <sub>7</sub> NO <sub>3</sub>	<i>L</i> -Serine	-732.7											
C <sub>3</sub> H <sub>8</sub>	Propane		-120.9	-103.8			-23.4			270.3			73.6
C <sub>3</sub> H <sub>8</sub> N <sub>2</sub> O	<i>N</i> -Ethylurea	-357.8											
C <sub>3</sub> H <sub>8</sub> N <sub>2</sub> O	<i>N,N</i> -Dimethylurea	-319.1											
C <sub>3</sub> H <sub>8</sub> N <sub>2</sub> O	<i>N,N'</i> -Dimethylurea	-312.1											
C <sub>3</sub> H <sub>8</sub> N <sub>2</sub> O <sub>3</sub>	Oxymethurea	-717.0											
C <sub>3</sub> H <sub>8</sub> O	1-Propanol		-302.6	-255.1				193.6		322.6		143.9	85.6
C <sub>3</sub> H <sub>8</sub> O	2-Propanol		-318.1	-272.6				181.1		309.2		156.5	89.3
C <sub>3</sub> H <sub>8</sub> O	Ethyl methyl ether			-216.4						309.2			93.3
C <sub>3</sub> H <sub>8</sub> O <sub>2</sub>	1,2-Propylene glycol		-501.0	-429.8								190.8	
C <sub>3</sub> H <sub>8</sub> O <sub>2</sub>	1,3-Propylene glycol		-480.8	-408.0									
C <sub>3</sub> H <sub>8</sub> O <sub>2</sub>	Ethylene glycol monomethyl ether											171.1	
C <sub>3</sub> H <sub>8</sub> O <sub>2</sub>	Dimethoxymethane		-377.8	-348.5					244.0			162.0	
C <sub>3</sub> H <sub>8</sub> O <sub>3</sub>	Glycerol		-669.6	-577.9						206.3		218.9	
C <sub>3</sub> H <sub>8</sub> S	1-Propanethiol		-99.9	-67.8						242.5		144.6	
C <sub>3</sub> H <sub>8</sub> S	2-Propanethiol		-105.9	-76.2						233.5		145.3	
C <sub>3</sub> H <sub>8</sub> S	Ethyl methyl sulfide		-91.6	-59.6						239.1		144.6	

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>3</sub> H <sub>8</sub> S <sub>2</sub>	1,3-Propanedithiol		-79.4	-29.8									
C <sub>3</sub> H <sub>9</sub> Al	Trimethyl aluminum		-136.4	-74.1			-9.9		209.4				155.6
C <sub>3</sub> H <sub>9</sub> B	Trimethylborane		-143.1	-124.3			-32.1	-35.9	238.9	314.7			88.5
C <sub>3</sub> H <sub>9</sub> ClSi	Trimethylchlorosilane		-382.8	-352.8			-246.4	-243.5	278.2	369.1			
C <sub>3</sub> H <sub>9</sub> N	Propylamine		-101.5	-70.1				39.9		325.4			164.1
C <sub>3</sub> H <sub>9</sub> N	Isopropylamine		-112.3	-83.7				32.2		312.2			163.8
C <sub>3</sub> H <sub>9</sub> N	Trimethylamine		-45.7	-23.6					208.5	287.1			137.9
C <sub>3</sub> H <sub>10</sub> ClN	Propylamine hydrochloride	-354.7											
C <sub>3</sub> H <sub>10</sub> ClN	Trimethylamine hydrochloride	-282.9											
C <sub>3</sub> H <sub>10</sub> N <sub>2</sub>	1,2-Propanediamine, (±)-		-97.8	-53.6									
C <sub>3</sub> H <sub>10</sub> Si	Trimethylsilane									331.0			117.9
C <sub>3</sub> H <sub>12</sub> BN	Trimethylamine borane	-142.5			70.7				187.0				
C <sub>3</sub> H <sub>12</sub> BN	Aminotrimethylboron	-284.1			-79.3				218.0				
C <sub>4</sub> F <sub>8</sub>	Perfluorocyclobutane			-1542.6									
C <sub>4</sub> F <sub>10</sub>	Perfluorobutane												127.2
C <sub>4</sub> H <sub>2</sub> N <sub>2</sub>	<i>trans</i> -2-Butenedinitrile	268.2		340.2									
C <sub>4</sub> H <sub>2</sub> O <sub>3</sub>	Maleic anhydride	-469.8		-398.3									
C <sub>4</sub> H <sub>2</sub> O <sub>4</sub>	2-Butynedioic acid	-577.3											
C <sub>4</sub> H <sub>3</sub> NO <sub>3</sub>	2-Nitrofurane	-104.1		-28.8									
C <sub>4</sub> H <sub>4</sub> BrNO <sub>2</sub>	<i>N</i> -Bromosuccinimide	-335.9											
C <sub>4</sub> H <sub>4</sub> ClNO <sub>2</sub>	<i>N</i> -Chlorosuccinimide	-357.9											
C <sub>4</sub> H <sub>4</sub> N <sub>2</sub>	Succinonitrile		139.7	209.7						191.6			145.6
C <sub>4</sub> H <sub>4</sub> N <sub>2</sub>	Pyrazine	139.8		196.1									
C <sub>4</sub> H <sub>4</sub> N <sub>2</sub>	Pyrimidine		145.9	195.7									
C <sub>4</sub> H <sub>4</sub> N <sub>2</sub>	Pyridazine		224.9	278.3									
C <sub>4</sub> H <sub>4</sub> N <sub>2</sub> O <sub>2</sub>	Uracil	-429.4		-302.9								120.5	
C <sub>4</sub> H <sub>4</sub> N <sub>2</sub> O <sub>3</sub>	2,4,6-Trihydroxypyrimidine	-634.7											
C <sub>4</sub> H <sub>4</sub> O	Furan		-62.3	-34.8						177.0	267.2		114.8
C <sub>4</sub> H <sub>4</sub> O <sub>2</sub>	Diketene		-233.1	-190.3									65.4
C <sub>4</sub> H <sub>4</sub> O <sub>3</sub>	Succinic anhydride	-608.6		-527.9									
C <sub>4</sub> H <sub>4</sub> O <sub>4</sub>	Maleic acid	-789.4		-679.4					160.8				137.0
C <sub>4</sub> H <sub>4</sub> O <sub>4</sub>	Fumaric acid	-811.7		-675.8					168.0				142.0
C <sub>4</sub> H <sub>4</sub> S	Thiophene		80.2	114.9			126.1			181.2	278.8		123.8
C <sub>4</sub> H <sub>5</sub> N	<i>trans</i> -2-Butenenitrile		95.1	134.3									72.8
C <sub>4</sub> H <sub>5</sub> N	3-Butenenitrile		117.8	159.7									
C <sub>4</sub> H <sub>5</sub> N	Pyrrole		63.1	108.2						156.4			127.7
C <sub>4</sub> H <sub>5</sub> N	Cyclopropanecarbonitrile		140.8	182.8									
C <sub>4</sub> H <sub>5</sub> NO <sub>2</sub>	Succinimide	-459.0		-375.4									
C <sub>4</sub> H <sub>5</sub> NS	4-Methylthiazole		67.9	111.8									
C <sub>4</sub> H <sub>5</sub> N <sub>3</sub> O	Cytosine	-221.3											132.6
C <sub>4</sub> H <sub>6</sub>	1,2-Butadiene		138.6	162.3									
C <sub>4</sub> H <sub>6</sub>	1,3-Butadiene		88.5	110.0						199.0			123.6
C <sub>4</sub> H <sub>6</sub>	1-Butyne		141.4	165.2									
C <sub>4</sub> H <sub>6</sub>	2-Butyne		119.1	145.7									

Molecular formula	Name	$\Delta_f H^\circ / \text{kJ mol}^{-1}$			$\Delta_f G^\circ / \text{kJ mol}^{-1}$			$S^\circ / \text{J mol}^{-1} \text{K}^{-1}$			$C_p / \text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>4</sub> H <sub>6</sub>	Cyclobutene			156.7									
C <sub>4</sub> H <sub>6</sub> N <sub>2</sub> O <sub>2</sub>	2,5-Piperazinedione	-446.5											
C <sub>4</sub> H <sub>6</sub> O	Divinyl ether		-39.8	-13.6									
C <sub>4</sub> H <sub>6</sub> O	<i>trans</i> -2-Butenal		-138.7	-100.6									
C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	<i>trans</i> -Crotonic acid												
C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	Methacrylic acid											161.1	
C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	Vinyl acetate		-349.2	-314.4									
C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	Methyl acrylate		-362.2	-333.0					239.5				158.8
C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	$\gamma$ -Butyrolactone		-420.9	-366.5									141.4
C <sub>4</sub> H <sub>6</sub> O <sub>3</sub>	Acetic anhydride		-624.4	-572.5									
C <sub>4</sub> H <sub>6</sub> O <sub>3</sub>	Propylene carbonate		-613.2	-582.5									218.6
C <sub>4</sub> H <sub>6</sub> O <sub>4</sub>	Succinic acid	-940.5		-823.0				167.3				153.1	
C <sub>4</sub> H <sub>6</sub> O <sub>4</sub>	Dimethyl oxalate	-756.3		-708.9									
C <sub>4</sub> H <sub>6</sub> S	2,3-Dihydrothiophene		52.9	90.7			133.5			303.5			79.8
C <sub>4</sub> H <sub>6</sub> S	2,5-Dihydrothiophene		47.0	86.9			131.6			297.1			83.3
C <sub>4</sub> H <sub>7</sub> ClO	2-Chloroethyl vinyl ether		-208.1	-170.1									
C <sub>4</sub> H <sub>7</sub> ClO <sub>2</sub>	2-Chlorobutanoic acid		-575.5										
C <sub>4</sub> H <sub>7</sub> ClO <sub>2</sub>	3-Chlorobutanoic acid		-556.3										
C <sub>4</sub> H <sub>7</sub> ClO <sub>2</sub>	4-Chlorobutanoic acid		-566.3										
C <sub>4</sub> H <sub>7</sub> ClO <sub>2</sub>	Propyl chlorocarbonate		-533.4	-492.7									
C <sub>4</sub> H <sub>7</sub> N	Butanenitrile		-5.8	33.6									
C <sub>4</sub> H <sub>7</sub> N	2-Methylpropanenitrile		-13.8	23.4									
C <sub>4</sub> H <sub>7</sub> NO	2-Pyrrolidone		-286.2										
C <sub>4</sub> H <sub>7</sub> NO	2-Methyl-2-oxazoline		-169.5	-130.5									
C <sub>4</sub> H <sub>7</sub> NO <sub>4</sub>	Iminodiacetic acid	-932.6											
C <sub>4</sub> H <sub>7</sub> NO <sub>4</sub>	Ethyl nitroacetate		-487.1										
C <sub>4</sub> H <sub>7</sub> NO <sub>4</sub>	<i>L</i> -Aspartic acid	-973.3											
C <sub>4</sub> H <sub>7</sub> N <sub>3</sub> O	4 <i>H</i> -Imidazol-4-one, 2-amino-1,5-dihydro-1- methyl-	-238.5											
C <sub>4</sub> H <sub>8</sub>	1-Butene		-20.8	0.1						227.0			118.0
C <sub>4</sub> H <sub>8</sub>	<i>cis</i> -2-Butene		-29.8	-7.1						219.9			127.0
C <sub>4</sub> H <sub>8</sub>	<i>trans</i> -2-Butene		-33.3	-11.4									
C <sub>4</sub> H <sub>8</sub>	Isobutene		-37.5	-16.9									
C <sub>4</sub> H <sub>8</sub>	Cyclobutane		3.7	27.7									
C <sub>4</sub> H <sub>8</sub>	Methylcyclopropane		1.7										
C <sub>4</sub> H <sub>8</sub> Br <sub>2</sub>	1,2-Dibromobutane		-142.1	-91.6									
C <sub>4</sub> H <sub>8</sub> Br <sub>2</sub>	1,3-Dibromobutane		-148.0										
C <sub>4</sub> H <sub>8</sub> Br <sub>2</sub>	1,4-Dibromobutane		-140.3	-87.8									
C <sub>4</sub> H <sub>8</sub> Br <sub>2</sub>	2,3-Dibromobutane		-139.6	-102.0									
C <sub>4</sub> H <sub>8</sub> Br <sub>2</sub>	1,2-Dibromo-2- methylpropane		-156.6	-113.3									
C <sub>4</sub> H <sub>8</sub> Cl <sub>2</sub>	1,3-Dichlorobutane		-237.3	-195.0									
C <sub>4</sub> H <sub>8</sub> Cl <sub>2</sub>	1,4-Dichlorobutane		-229.8	-183.4									
C <sub>4</sub> H <sub>8</sub> Cl <sub>2</sub> O	Bis(2-chloroethyl) ether												220.9

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>4</sub> H <sub>8</sub> I <sub>2</sub>	1,4-Diiodobenzene		-30.0										
C <sub>4</sub> H <sub>8</sub> N <sub>2</sub> O <sub>2</sub>	Succinamide	-581.2											
C <sub>4</sub> H <sub>8</sub> N <sub>2</sub> O <sub>2</sub>	Dimethylglyoxime	-199.7											
C <sub>4</sub> H <sub>8</sub> N <sub>2</sub> O <sub>3</sub>	<i>L</i> -Asparagine	-789.4											
C <sub>4</sub> H <sub>8</sub> N <sub>2</sub> O <sub>3</sub>	<i>N</i> -Glycylglycine	-747.7											
C <sub>4</sub> H <sub>8</sub> N <sub>2</sub> O <sub>4</sub>	1,4-Dinitrobutane		-237.5										
C <sub>4</sub> H <sub>8</sub> O	Ethyl vinyl ether		-167.4	-140.8									
C <sub>4</sub> H <sub>8</sub> O	1,2-Epoxybutane		-168.9					230.9				147.0	
C <sub>4</sub> H <sub>8</sub> O	Butanal		-239.2	-204.8				246.6	343.7			163.7	103.4
C <sub>4</sub> H <sub>8</sub> O	Isobutanal		-247.3	-215.7									
C <sub>4</sub> H <sub>8</sub> O	2-Butanone		-273.3	-238.5				239.1	339.9			158.7	101.7
C <sub>4</sub> H <sub>8</sub> O	Tetrahydrofuran		-216.2	-184.1				204.3	302.4			124.0	76.3
C <sub>4</sub> H <sub>8</sub> OS	<i>S</i> -Ethyl thioacetate		-268.2	-228.1									
C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	Butanoic acid		-533.8	-475.9								178.6	
C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	2-Methylpropanoic acid											173.0	
C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	Propyl formate		-500.3	-462.7									
C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	Ethyl acetate		-479.3	-443.6				257.7				170.7	
C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	1,3-Dioxane		-379.7	-340.6								143.9	
C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	1,4-Dioxane		-353.9	-315.3					270.2			152.1	
C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	2-Methyl-1,3-dioxolane		-386.9	-352.0									
C <sub>4</sub> H <sub>8</sub> O <sub>2</sub> S	Sulfolane											180.0	
C <sub>4</sub> H <sub>8</sub> S	Tetrahydrothiophene		-72.9	-34.1			45.8			309.6			92.5
C <sub>4</sub> H <sub>8</sub> S <sub>2</sub>	1,3-Dithiane			-10.0			72.4			333.5			110.4
C <sub>4</sub> H <sub>9</sub> Br	1-Bromobutane		-143.8	-107.1									
C <sub>4</sub> H <sub>9</sub> Br	2-Bromobutane		-154.9	-120.3									
C <sub>4</sub> H <sub>9</sub> Br	2-Bromo-2-methylpropane		-164.4	-132.4									
C <sub>4</sub> H <sub>9</sub> Cl	1-Chlorobutane		-188.1	-154.4									
C <sub>4</sub> H <sub>9</sub> Cl	2-Chlorobutane		-192.8	-161.1									
C <sub>4</sub> H <sub>9</sub> Cl	1-Chloro-2-methylpropane		-191.1	-159.3									
C <sub>4</sub> H <sub>9</sub> Cl	2-Chloro-2-methylpropane		-211.3	-182.2									
C <sub>4</sub> H <sub>9</sub> ClO	2-Chloroethyl ethyl ether		-335.6	-301.3									
C <sub>4</sub> H <sub>9</sub> I	1-Iodo-2-methylpropane											162.3	
C <sub>4</sub> H <sub>9</sub> I	2-Iodo-2-methylpropane		-107.5	-72.1									
C <sub>4</sub> H <sub>9</sub> N	Cyclobutanamine		5.6	41.2									
C <sub>4</sub> H <sub>9</sub> N	Pyrrolidine		-41.1	-3.6				204.1				156.6	
C <sub>4</sub> H <sub>9</sub> NO	Butanamide		-346.9	-282.0									
C <sub>4</sub> H <sub>9</sub> NO	<i>N</i> -Methylpropanamide											179.0	
C <sub>4</sub> H <sub>9</sub> NO	2-Methylpropanamide	-368.6		-282.6									
C <sub>4</sub> H <sub>9</sub> NO	<i>N,N</i> -Dimethylacetamide		-278.3	-228.0								175.6	
C <sub>4</sub> H <sub>9</sub> NO	Morpholine											164.8	
C <sub>4</sub> H <sub>9</sub> NO <sub>2</sub>	1-Nitrobutane		-192.5	-143.9									
C <sub>4</sub> H <sub>9</sub> NO <sub>2</sub>	2-Nitroisobutane		-217.2	-177.1									
C <sub>4</sub> H <sub>9</sub> NO <sub>2</sub>	Propyl carbamate	-552.6		-471.4									
C <sub>4</sub> H <sub>9</sub> NO <sub>2</sub>	4-Aminobutanoic acid	-581.0		-441.0									
C <sub>4</sub> H <sub>9</sub> NO <sub>3</sub>	3-Nitro-2-butanol		-390.0										

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>4</sub> H <sub>9</sub> NO <sub>3</sub>	2-Methyl-2-nitro-1-propanol	-410.1											
C <sub>4</sub> H <sub>9</sub> NO <sub>3</sub>	<i>DL</i> -Threonine	-758.8											
C <sub>4</sub> H <sub>9</sub> NO <sub>3</sub>	<i>L</i> -Threonine	-807.2											
C <sub>4</sub> H <sub>9</sub> N <sub>3</sub> O <sub>2</sub>	Creatine	-537.2											
C <sub>4</sub> H <sub>10</sub>	Butane		-147.3	-125.7								140.9	
C <sub>4</sub> H <sub>10</sub>	Isobutane		-154.2	-134.2									
C <sub>4</sub> H <sub>10</sub> Hg	Diethyl mercury		30.1	75.3								182.8	
C <sub>4</sub> H <sub>10</sub> N <sub>2</sub>	Piperazine	-45.6											
C <sub>4</sub> H <sub>10</sub> N <sub>2</sub> O	Trimethylurea	-330.5											
C <sub>4</sub> H <sub>10</sub> N <sub>2</sub> O <sub>2</sub>	<i>N</i> -Nitrodiethylamine		-106.2	-53.0									
C <sub>4</sub> H <sub>10</sub> N <sub>2</sub> O <sub>4</sub>	<i>L</i> -Asparagine, monohydrate	-1086.6											
C <sub>4</sub> H <sub>10</sub> O	1-Butanol		-327.3	-274.9				225.8				177.2	
C <sub>4</sub> H <sub>10</sub> O	2-Butanol		-342.6	-292.8				214.9	359.5			196.9	112.7
C <sub>4</sub> H <sub>10</sub> O	2-Methyl-1-propanol		-334.7	-283.8				214.7				181.5	
C <sub>4</sub> H <sub>10</sub> O	2-Methyl-2-propanol		-359.2	-312.5				193.3	326.7			218.6	113.6
C <sub>4</sub> H <sub>10</sub> O	Diethyl ether		-279.5	-252.1				172.4	342.7			175.6	119.5
C <sub>4</sub> H <sub>10</sub> O	Methyl propyl ether		-266.0	-238.1				262.9				165.4	
C <sub>4</sub> H <sub>10</sub> O	Isopropyl methyl ether		-278.8	-252.0				253.8				161.9	
C <sub>4</sub> H <sub>10</sub> OS	Diethyl sulfoxide		-268.0	-205.6									
C <sub>4</sub> H <sub>10</sub> O <sub>2</sub>	1,2-Butanediol, ( $\pm$ )-		-523.6										
C <sub>4</sub> H <sub>10</sub> O <sub>2</sub>	1,3-Butanediol		-501.0	-433.2									
C <sub>4</sub> H <sub>10</sub> O <sub>2</sub>	1,4-Butanediol		-505.3	-428.7				223.4				200.1	
C <sub>4</sub> H <sub>10</sub> O <sub>2</sub>	2,3-Butanediol		-541.5	-482.3								213.0	
C <sub>4</sub> H <sub>10</sub> O <sub>2</sub>	2-Methyl-1,2-propanediol		-539.7										
C <sub>4</sub> H <sub>10</sub> O <sub>2</sub>	Ethylene glycol monoethyl ether											210.8	
C <sub>4</sub> H <sub>10</sub> O <sub>2</sub>	Ethylene glycol dimethyl ether		-376.6									193.3	
C <sub>4</sub> H <sub>10</sub> O <sub>2</sub>	Dimethylacetal		-420.6	-389.7									
C <sub>4</sub> H <sub>10</sub> O <sub>2</sub>	<i>tert</i> -Butyl hydroperoxide		-293.6	-245.9									
C <sub>4</sub> H <sub>10</sub> O <sub>3</sub>	Diethylene glycol		-628.5	-571.2								244.8	
C <sub>4</sub> H <sub>10</sub> O <sub>3</sub> S	Diethyl sulfite		-600.7	-552.2									
C <sub>4</sub> H <sub>10</sub> O <sub>4</sub> S	Sulfuric acid, diethyl ester		-813.2	-756.3									
C <sub>4</sub> H <sub>10</sub> S	1-Butanethiol		-124.7	-88.0								171.2	
C <sub>4</sub> H <sub>10</sub> S	2-Butanethiol		-131.0	-96.9									
C <sub>4</sub> H <sub>10</sub> S	2-Methyl-1-propanethiol		-132.0	-97.3									
C <sub>4</sub> H <sub>10</sub> S	2-Methyl-2-propanethiol		-140.5	-109.6									
C <sub>4</sub> H <sub>10</sub> S	Diethyl sulfide		-119.4	-83.5				269.3	368.1			171.4	117.0
C <sub>4</sub> H <sub>10</sub> S	Methyl propyl sulfide		-118.5	-82.2				272.5				171.6	
C <sub>4</sub> H <sub>10</sub> S	Isopropyl methyl sulfide		-124.7	-90.5				263.1				172.4	
C <sub>4</sub> H <sub>10</sub> S <sub>2</sub>	1,4-Butanedithiol		-105.7	-50.6									
C <sub>4</sub> H <sub>10</sub> S <sub>2</sub>	Diethyl disulfide		-120.1	-79.4				269.3				171.4	
C <sub>4</sub> H <sub>11</sub> N	Butylamine		-127.6	-91.9								179.2	
C <sub>4</sub> H <sub>11</sub> N	<i>sec</i> -Butylamine		-137.5	-104.6									
C <sub>4</sub> H <sub>11</sub> N	<i>tert</i> -Butylamine		-150.6	-121.0								192.1	
C <sub>4</sub> H <sub>11</sub> N	Isobutylamine		-132.6	-98.7								183.2	
C <sub>4</sub> H <sub>11</sub> N	Diethylamine		-103.7	-72.2								169.2	

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>4</sub> H <sub>11</sub> NO	<i>N,N</i> -Dimethylethanolamine		-253.7	-203.6									
C <sub>4</sub> H <sub>11</sub> NO <sub>2</sub>	Diethanolamine	-493.8		-397.1							233.5		
C <sub>4</sub> H <sub>11</sub> NO <sub>3</sub>	2-Amino-2-(hydroxymethyl)-1,3-propanediol	-717.8											
C <sub>4</sub> H <sub>12</sub> BrN	Tetramethylammonium bromide	-251.0											
C <sub>4</sub> H <sub>12</sub> ClN	Diethylamine hydrochloride	-358.6											
C <sub>4</sub> H <sub>12</sub> ClN	Tetramethylammonium chloride	-276.4											
C <sub>4</sub> H <sub>12</sub> IN	Tetramethylammonium iodide	-203.9											
C <sub>4</sub> H <sub>12</sub> N <sub>2</sub>	2-Methyl-1,2-propanediamine		-133.9	-90.3									
C <sub>4</sub> H <sub>12</sub> Pb	Tetramethyl lead		97.9	135.9									
C <sub>4</sub> H <sub>12</sub> Si	Tetramethylsilane		-264.0	-239.1	-100.0		-99.9	277.3		359.0		204.1	143.9
C <sub>4</sub> H <sub>12</sub> Sn	Tetramethylstannane		-52.3	-18.8									
C <sub>4</sub> H <sub>13</sub> N <sub>3</sub>	Diethylenetriamine											254.0	
C <sub>4</sub> N <sub>2</sub>	2-Butynedinitrile		500.4	529.2									
C <sub>4</sub> NiO <sub>4</sub>	Nickel carbonyl		-633.0	-602.9				313.4		410.6		204.6	145.2
C <sub>5</sub> FeO <sub>5</sub>	Iron pentacarbonyl		-774.0					338.1				240.6	
C <sub>5</sub> H <sub>2</sub> F <sub>6</sub> O <sub>2</sub>	Hexafluoroacetylacetone	-2286.7											
C <sub>5</sub> H <sub>3</sub> NO <sub>5</sub>	5-Nitro-2-furancarboxylic acid		-516.8										
C <sub>5</sub> H <sub>4</sub> N <sub>4</sub>	1 <i>H</i> -Purine	169.4											
C <sub>5</sub> H <sub>4</sub> N <sub>4</sub> O	Hypoxanthine	-110.8						145.6				134.5	
C <sub>5</sub> H <sub>4</sub> N <sub>4</sub> O <sub>2</sub>	Xanthine	-379.6						161.1				151.3	
C <sub>5</sub> H <sub>4</sub> N <sub>4</sub> O <sub>3</sub>	Uric acid	-618.8						173.2				166.1	
C <sub>5</sub> H <sub>4</sub> O <sub>2</sub>	Furfural		-201.6	-151.0								163.2	
C <sub>5</sub> H <sub>4</sub> O <sub>3</sub>	2-Furancarboxylic acid	-498.4		-390.0									
C <sub>5</sub> H <sub>4</sub> O <sub>3</sub>	3-Methyl-2,5-furandione		-504.5	-447.2									
C <sub>5</sub> H <sub>5</sub> F <sub>3</sub> O <sub>2</sub>	1,1,1-Trifluoro-2,4-pentanedione		-1040.2	-993.3									
C <sub>5</sub> H <sub>5</sub> N	Pyridine		100.2	140.4								132.7	
C <sub>5</sub> H <sub>5</sub> NO	1 <i>H</i> -Pyrrole-2-carboxaldehyde	-106.4											
C <sub>5</sub> H <sub>5</sub> N <sub>5</sub>	Adenine	96.9		205.7								147.0	
C <sub>5</sub> H <sub>5</sub> N <sub>5</sub> O	Guanine	-183.9											
C <sub>5</sub> H <sub>6</sub>	<i>cis</i> -3-Penten-1-yne		226.5										
C <sub>5</sub> H <sub>6</sub>	<i>trans</i> -3-Penten-1-yne		228.2										
C <sub>5</sub> H <sub>6</sub>	1,3-Cyclopentadiene		105.9	134.3									
C <sub>5</sub> H <sub>6</sub> N <sub>2</sub> O <sub>2</sub>	Thymine	-462.8		-328.7								150.8	
C <sub>5</sub> H <sub>6</sub> O <sub>2</sub>	Furfuryl alcohol		-276.2	-211.8								204.0	
C <sub>5</sub> H <sub>6</sub> O <sub>4</sub>	<i>trans</i> -1-Propene-1,2-dicarboxylic acid	-824.4											
C <sub>5</sub> H <sub>6</sub> S	2-Methylthiophene		44.6	83.5				218.5				149.8	
C <sub>5</sub> H <sub>6</sub> S	3-Methylthiophene		43.1	82.5									
C <sub>5</sub> H <sub>7</sub> N	<i>trans</i> -3-Pentenenitrile		80.9	125.7									
C <sub>5</sub> H <sub>7</sub> N	Cyclobutanecarbonitrile		103.0	147.4									

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>5</sub> H <sub>7</sub> N	1-Methylpyrrole		62.4	103.1									
C <sub>5</sub> H <sub>7</sub> N	2-Methylpyrrole		23.3	74.0									
C <sub>5</sub> H <sub>7</sub> N	3-Methylpyrrole		20.5	70.2									
C <sub>5</sub> H <sub>7</sub> NO <sub>2</sub>	Ethyl cyanoacetate											220.2	
C <sub>5</sub> H <sub>8</sub>	1,2-Pentadiene			140.7									
C <sub>5</sub> H <sub>8</sub>	<i>cis</i> -1,3-Pentadiene			81.4									
C <sub>5</sub> H <sub>8</sub>	<i>trans</i> -1,3-Pentadiene			76.1									
C <sub>5</sub> H <sub>8</sub>	1,4-Pentadiene			105.7									
C <sub>5</sub> H <sub>8</sub>	2,3-Pentadiene			133.1									
C <sub>5</sub> H <sub>8</sub>	3-Methyl-1,2-butadiene		101.2										
C <sub>5</sub> H <sub>8</sub>	2-Methyl-1,3-butadiene		48.2	75.5					229.3				152.6
C <sub>5</sub> H <sub>8</sub>	Cyclopentene		4.3	34.0					201.2				122.4
C <sub>5</sub> H <sub>8</sub>	Methylenecyclobutane		93.8	121.6									
C <sub>5</sub> H <sub>8</sub>	Spiropentane		157.5	185.2					193.7				134.5
C <sub>5</sub> H <sub>8</sub> N <sub>4</sub> O <sub>12</sub>	Pentaerythritol tetranitrate	-538.6											
C <sub>5</sub> H <sub>8</sub> O	Cyclopentanone		-235.9	-192.1									
C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>	4-Pentenoic acid	-430.6											
C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>	Methyl <i>trans</i> -2-butenate		-382.9	-341.9									
C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>	Methyl methacrylate												191.2
C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>	Allyl acetate												184.1
C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>	2,4-Pentanedione		-423.8	-382.0									
C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>	4-Methyl-gamma-butylactone		-461.3	-406.5									
C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>	Tetrahydro-2 <i>H</i> -pyran-2-one		-436.7	-379.6									
C <sub>5</sub> H <sub>8</sub> O <sub>4</sub>	Glutaric acid	-960.0											
C <sub>5</sub> H <sub>9</sub> ClO <sub>2</sub>	Propyl chloroacetate		-515.5	-467.0									
C <sub>5</sub> H <sub>9</sub> N	Pentanenitrile		-33.1	10.5									
C <sub>5</sub> H <sub>9</sub> N	2,2-Dimethylpropanenitrile		-39.8	-2.3									
C <sub>5</sub> H <sub>9</sub> N	1,2,5,6-Tetrahydropyridine		33.5						232.0				179.4
C <sub>5</sub> H <sub>9</sub> NO	2-Piperidinone	-306.6											
C <sub>5</sub> H <sub>9</sub> NO	<i>N</i> -Methyl-2-pyrrolidone		-262.2										307.8
C <sub>5</sub> H <sub>9</sub> NO <sub>2</sub>	<i>L</i> -Proline	-515.2		-366.2									
C <sub>5</sub> H <sub>9</sub> NO <sub>4</sub>	<i>D</i> -Glutamic acid	-1005.3											
C <sub>5</sub> H <sub>9</sub> NO <sub>4</sub>	<i>L</i> -Glutamic acid	-1009.7											
C <sub>5</sub> H <sub>10</sub>	1-Pentene		-46.9	-21.1									154.0
C <sub>5</sub> H <sub>10</sub>	<i>cis</i> -2-Pentene		-53.7	-27.6									151.7
C <sub>5</sub> H <sub>10</sub>	<i>trans</i> -2-Pentene		-58.2	-31.9									157.0
C <sub>5</sub> H <sub>10</sub>	2-Methyl-1-butene		-61.1	-35.2									157.2
C <sub>5</sub> H <sub>10</sub>	3-Methyl-1-butene		-51.5	-27.5									156.1
C <sub>5</sub> H <sub>10</sub>	2-Methyl-2-butene		-68.6	-41.7									152.8
C <sub>5</sub> H <sub>10</sub>	Cyclopentane		-105.1	-76.4									128.8
C <sub>5</sub> H <sub>10</sub>	Methylcyclobutane		-44.5										
C <sub>5</sub> H <sub>10</sub>	Ethylcyclopropane		-24.8										
C <sub>5</sub> H <sub>10</sub>	1,1-Dimethylcyclopropane		-33.3	-8.2									
C <sub>5</sub> H <sub>10</sub>	<i>cis</i> -1,2-Dimethylcyclopropane		-26.3										

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>5</sub> H <sub>10</sub>	<i>trans</i> -1,2-Dimethylcyclopropane		-30.7										
C <sub>5</sub> H <sub>10</sub> Br <sub>2</sub>	1,3-Dibromo-2-methylpropane			-137.6									
C <sub>5</sub> H <sub>10</sub> N <sub>2</sub> O	<i>N</i> -Nitrosopiperidine		-31.1	16.6									
C <sub>5</sub> H <sub>10</sub> N <sub>2</sub> O <sub>2</sub>	<i>N</i> -Nitropiperidine		-93.0	-44.5									
C <sub>5</sub> H <sub>10</sub> N <sub>2</sub> O <sub>3</sub>	<i>L</i> -Glutamine	-826.4											
C <sub>5</sub> H <sub>10</sub> O	Cyclopentanol		-300.1	-242.5				206.3				184.1	
C <sub>5</sub> H <sub>10</sub> O	Pentanal		-267.2	-228.4									
C <sub>5</sub> H <sub>10</sub> O	2-Pentanone		-297.3	-258.8								184.1	
C <sub>5</sub> H <sub>10</sub> O	3-Pentanone		-296.5	-257.9					266.0			190.9	
C <sub>5</sub> H <sub>10</sub> O	3-Methyl-2-butanone		-299.5	-262.6					268.5			179.9	
C <sub>5</sub> H <sub>10</sub> O	3,3-Dimethyloxetane		-182.2	-148.2									
C <sub>5</sub> H <sub>10</sub> O	Tetrahydropyran		-258.3	-223.4									
C <sub>5</sub> H <sub>10</sub> OS	<i>S</i> -Propyl thioacetate		-294.5	-250.4									
C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	Pentanoic acid		-559.4	-491.9					259.8			210.3	
C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	2-Methylbutanoic acid		-554.5										
C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	3-Methylbutanoic acid		-561.6	-510.0									
C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	2,2-Dimethylpropanoic acid	-564.5		-491.3									
C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	Butyl formate											200.2	
C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	Propyl acetate											196.2	
C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	Isopropyl acetate		-518.9	-481.6								199.4	
C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	Ethyl propanoate		-502.7	-463.4									
C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	<i>cis</i> -1,2-Cyclopentanediol	-485.0											
C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	<i>trans</i> -1,2-Cyclopentanediol	-490.1											
C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	4-Methyl-1,3-dioxane	-416.1		-376.9									
C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	(Ethoxymethyl)oxirane		-296.5										
C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	Tetrahydrofurfuryl alcohol		-435.7	-369.1									
C <sub>5</sub> H <sub>10</sub> O <sub>3</sub>	Diethyl carbonate		-681.5	-637.9									
C <sub>5</sub> H <sub>10</sub> O <sub>3</sub>	Ethylene glycol momomethyl ether acetate											310.0	
C <sub>5</sub> H <sub>10</sub> O <sub>3</sub>	Ethyl lactate											254.0	
C <sub>5</sub> H <sub>10</sub> O <sub>4</sub>	1,2,3-Propanetriol, 1-acetate, ( $\pm$ )-		-909.2										
C <sub>5</sub> H <sub>10</sub> O <sub>5</sub>	<i>D</i> -Ribose	-1047.2											
C <sub>5</sub> H <sub>10</sub> O <sub>5</sub>	<i>D</i> -Xylose	-1057.8											
C <sub>5</sub> H <sub>10</sub> O <sub>5</sub>	$\alpha$ - <i>D</i> -Arabinopyranose	-1057.9											
C <sub>5</sub> H <sub>10</sub> S	Thiacyclohexane		-106.3	-63.5			53.1		218.2	323.0		163.3	109.7
C <sub>5</sub> H <sub>10</sub> S	Cyclopentanethiol		-89.5	-48.1					256.9			165.2	
C <sub>5</sub> H <sub>11</sub> Br	1-Bromopentane		-170.2	-128.9									
C <sub>5</sub> H <sub>11</sub> Cl	1-Chloropentane		-213.2	-174.9									
C <sub>5</sub> H <sub>11</sub> Cl	2-Chloro-2-methylbutane		-235.7	-202.2									
C <sub>5</sub> H <sub>11</sub> Cl	1-Chloro-3-methylbutane		-216.0	-179.7									
C <sub>5</sub> H <sub>11</sub> Cl	2-Chloro-3-methylbutane		-226.6	-185.1									
C <sub>5</sub> H <sub>11</sub> N	Cyclopentylamine		-95.1	-54.9					241.0			181.2	

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>5</sub> H <sub>11</sub> N	Piperidine		-86.4	-47.1				210.0					179.9
C <sub>5</sub> H <sub>11</sub> NO	Pentanamide	-379.5		-290.2									
C <sub>5</sub> H <sub>11</sub> NO	2,2-Dimethylpropanamide	-399.7		-313.1									
C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub>	1-Nitropentane		-215.4										
C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub>	<i>DL</i> -Valine	-628.9											
C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub>	<i>L</i> -Valine	-617.9		-455.1									
C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub>	5-Aminopentanoic acid	-604.1		-460.0									
C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub> S	<i>L</i> -Methionine	-577.5		-413.5									
C <sub>5</sub> H <sub>11</sub> NO <sub>4</sub>	2-Ethyl-2-nitro-1,3-propanediol	-606.4											
C <sub>5</sub> H <sub>12</sub>	Pentane		-173.5	-146.9									167.2
C <sub>5</sub> H <sub>12</sub>	Isopentane		-178.4	-153.6				260.4					164.8
C <sub>5</sub> H <sub>12</sub>	Neopentane		-190.2	-168.0									
C <sub>5</sub> H <sub>12</sub> N <sub>2</sub> O	Butylurea	-419.5											
C <sub>5</sub> H <sub>12</sub> N <sub>2</sub> O	<i>tert</i> -Butylurea	-417.4											
C <sub>5</sub> H <sub>12</sub> N <sub>2</sub> O	<i>N,N</i> -Diethylurea	-372.2											
C <sub>5</sub> H <sub>12</sub> N <sub>2</sub> O	Tetramethylurea	-262.2											
C <sub>5</sub> H <sub>12</sub> N <sub>2</sub> S	Tetramethylthiourea	-38.1		44.9									
C <sub>5</sub> H <sub>12</sub> O	1-Pentanol		-351.6	-294.6									208.1
C <sub>5</sub> H <sub>12</sub> O	2-Pentanol		-365.2	-311.0									
C <sub>5</sub> H <sub>12</sub> O	3-Pentanol		-368.9	-314.9									239.7
C <sub>5</sub> H <sub>12</sub> O	2-Methyl-1-butanol		-356.6	-301.4									
C <sub>5</sub> H <sub>12</sub> O	3-Methyl-1-butanol		-356.4	-300.7									
C <sub>5</sub> H <sub>12</sub> O	2-Methyl-2-butanol		-379.5	-329.3									247.1
C <sub>5</sub> H <sub>12</sub> O	3-Methyl-2-butanol		-366.6	-313.5									
C <sub>5</sub> H <sub>12</sub> O	2,2-Dimethyl-1-propanol		-399.4										
C <sub>5</sub> H <sub>12</sub> O	Butyl methyl ether		-290.6	-258.1					295.3				192.7
C <sub>5</sub> H <sub>12</sub> O	<i>tert</i> -Butyl methyl ether		-313.6	-283.7					265.3				187.5
C <sub>5</sub> H <sub>12</sub> O	Ethyl propyl ether		-303.6	-272.0					295.0				197.2
C <sub>5</sub> H <sub>12</sub> O <sub>2</sub>	1,5-Pentanediol		-528.8	-450.8									
C <sub>5</sub> H <sub>12</sub> O <sub>2</sub>	2,2-Dimethyl-1,3-propanediol	-551.2											
C <sub>5</sub> H <sub>12</sub> O <sub>2</sub>	Diethoxymethane		-450.5	-414.7									
C <sub>5</sub> H <sub>12</sub> O <sub>2</sub>	1,1-Dimethoxypropane		-443.6										
C <sub>5</sub> H <sub>12</sub> O <sub>2</sub>	2,2-Dimethoxypropane		-459.4	-429.9									
C <sub>5</sub> H <sub>12</sub> O <sub>3</sub>	Diethylene glycol monomethyl ether												271.1
C <sub>5</sub> H <sub>12</sub> O <sub>3</sub>	2-(Hydroxymethyl)-2-methyl-1,3-propanediol	-744.6											
C <sub>5</sub> H <sub>12</sub> O <sub>4</sub>	Pentaerythritol	-920.6		-776.7									
C <sub>5</sub> H <sub>12</sub> O <sub>5</sub>	Xylitol	-1118.5											
C <sub>5</sub> H <sub>12</sub> S	1-Pentanethiol		-151.3	-110.0									
C <sub>5</sub> H <sub>12</sub> S	2-Methyl-1-butanethiol		-154.4	-114.9									
C <sub>5</sub> H <sub>12</sub> S	3-Methyl-1-butanethiol		-154.4	-114.9									
C <sub>5</sub> H <sub>12</sub> S	2-Methyl-2-butanethiol		-162.8	-127.1					290.1				198.1
C <sub>5</sub> H <sub>12</sub> S	3-Methyl-2-butanethiol		-158.8	-121.3									

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>5</sub> H <sub>12</sub> S	2,2-Dimethyl-1-propanethiol		-165.4	-129.0									
C <sub>5</sub> H <sub>12</sub> S	Butyl methyl sulfide		-142.9	-102.4				307.5				200.9	
C <sub>5</sub> H <sub>12</sub> S	<i>tert</i> -Butyl methyl sulfide		-157.1	-121.3				276.1				199.9	
C <sub>5</sub> H <sub>12</sub> S	Ethyl propyl sulfide		-144.8	-104.8				309.5				198.4	
C <sub>5</sub> H <sub>12</sub> S	Ethyl isopropyl sulfide		-156.1	-118.3									
C <sub>5</sub> H <sub>13</sub> N	Pentylamine											218.0	
C <sub>5</sub> H <sub>14</sub> N <sub>2</sub>	<i>N,N,N',N'</i> -Tetramethyl- methanediamine		-51.1	-18.2									
C <sub>6</sub> ClF <sub>5</sub>	Chloropentafluorobenzene	-858.4		-809.3									
C <sub>6</sub> Cl <sub>6</sub>	Hexachlorobenzene	-127.6		-35.5			260.2				201.2		
C <sub>6</sub> F <sub>6</sub>	Hexafluorobenzene		-991.3	-955.4				280.8				221.6	
C <sub>6</sub> F <sub>10</sub>	Perfluorocyclohexene		-1963.5	-1932.7									
C <sub>6</sub> F <sub>12</sub>	Perfluorocyclohexane		-2406.3	-2370.4									
C <sub>6</sub> HF <sub>5</sub>	Pentafluorobenzene	-852.7	-841.8	-806.5									
C <sub>6</sub> HF <sub>5</sub> O	Pentafluorophenol	-1024.1	-1007.7										
C <sub>6</sub> H <sub>2</sub> F <sub>4</sub>	1,2,4,5-Tetrafluorobenzene		-683.8										
C <sub>6</sub> H <sub>3</sub> Cl <sub>3</sub>	1,2,3-Trichlorobenzene	-70.8		3.8									
C <sub>6</sub> H <sub>3</sub> Cl <sub>3</sub>	1,2,4-Trichlorobenzene		-63.1	-8.1									
C <sub>6</sub> H <sub>3</sub> Cl <sub>3</sub>	1,3,5-Trichlorobenzene	-78.4		-13.4									
C <sub>6</sub> H <sub>3</sub> N <sub>3</sub> O <sub>8</sub>	2,4,6-Trinitro-1,3-benzenediol	-467.5											
C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>	<i>o</i> -Dichlorobenzene		-17.5	30.2								162.4	
C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>	<i>m</i> -Dichlorobenzene		-20.7	25.7									
C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>	<i>p</i> -Dichlorobenzene	-42.3		22.5			175.4				147.8		
C <sub>6</sub> H <sub>4</sub> F <sub>2</sub>	<i>o</i> -Difluorobenzene		-330.0	-293.8				222.6				159.0	
C <sub>6</sub> H <sub>4</sub> F <sub>2</sub>	<i>m</i> -Difluorobenzene		-343.9	-309.2				223.8				159.1	
C <sub>6</sub> H <sub>4</sub> F <sub>2</sub>	<i>p</i> -Difluorobenzene		-342.3	-306.7								157.5	
C <sub>6</sub> H <sub>4</sub> N <sub>2</sub> O <sub>5</sub>	2,4-Dinitrophenol	-232.7		-128.1									
C <sub>6</sub> H <sub>4</sub> O <sub>2</sub>	<i>p</i> -Benzoquinone	-185.7		-122.9							129.0		
C <sub>6</sub> H <sub>5</sub> Br	Bromobenzene		60.9					219.2				154.3	
C <sub>6</sub> H <sub>5</sub> Cl	Chlorobenzene		11.1	52.0								150.1	
C <sub>6</sub> H <sub>5</sub> ClO	<i>m</i> -Chlorophenol	-206.4	-189.3										
C <sub>6</sub> H <sub>5</sub> ClO	<i>p</i> -Chlorophenol	-197.7	-181.3										
C <sub>6</sub> H <sub>5</sub> F	Fluorobenzene		-150.6	-115.9				205.9				146.4	
C <sub>6</sub> H <sub>5</sub> I	Iodobenzene		117.2	164.9				205.4				158.7	
C <sub>6</sub> H <sub>5</sub> NO <sub>2</sub>	Nitrobenzene		12.5	67.5								185.8	
C <sub>6</sub> H <sub>5</sub> NO <sub>2</sub>	3-Pyridinecarboxylic acid	-344.9		-221.5									
C <sub>6</sub> H <sub>5</sub> NO <sub>3</sub>	2-Nitrophenol	-202.4											
C <sub>6</sub> H <sub>5</sub> N <sub>3</sub>	1 <i>H</i> -Benzotriazole	236.5		335.5									
C <sub>6</sub> H <sub>5</sub> N <sub>3</sub> O <sub>4</sub>	2,3-Dinitroaniline	-11.7											
C <sub>6</sub> H <sub>5</sub> N <sub>3</sub> O <sub>4</sub>	2,4-Dinitroaniline	-67.8											
C <sub>6</sub> H <sub>5</sub> N <sub>3</sub> O <sub>4</sub>	2,5-Dinitroaniline	-44.3											
C <sub>6</sub> H <sub>5</sub> N <sub>3</sub> O <sub>4</sub>	2,6-Dinitroaniline	-50.6											
C <sub>6</sub> H <sub>5</sub> N <sub>3</sub> O <sub>4</sub>	3,5-Dinitroaniline	-38.9											
C <sub>6</sub> H <sub>6</sub>	1,5-Hexadiyne		384.2										
C <sub>6</sub> H <sub>6</sub>	Benzene		49.1	82.9	124.5	129.7		173.4	269.2			136.0	82.4

Molecular formula	Name	$\Delta_f H^\circ / \text{kJ mol}^{-1}$			$\Delta_f G^\circ / \text{kJ mol}^{-1}$			$S^\circ / \text{J mol}^{-1} \text{K}^{-1}$			$C_p / \text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
$\text{C}_6\text{H}_6\text{N}_2\text{O}_2$	<i>o</i> -Nitroaniline	-26.1	-9.4	63.8							166.0		
$\text{C}_6\text{H}_6\text{N}_2\text{O}_2$	<i>m</i> -Nitroaniline	-38.3	-14.4	58.4							158.8		
$\text{C}_6\text{H}_6\text{N}_2\text{O}_2$	<i>p</i> -Nitroaniline	-42.0	-20.7	58.8							167.0		
$\text{C}_6\text{H}_6\text{O}$	Phenol	-165.1		-96.4				144.0			127.4		
$\text{C}_6\text{H}_6\text{O}$	2-Vinylfuran		-10.3	27.8									
$\text{C}_6\text{H}_6\text{O}_2$	<i>p</i> -Hydroquinone	-364.5		-265.3							136.0		
$\text{C}_6\text{H}_6\text{O}_2$	Pyrocatechol	-354.1		-267.5									
$\text{C}_6\text{H}_6\text{O}_2$	Resorcinol	-368.0		-274.7									
$\text{C}_6\text{H}_6\text{O}_3$	1,2,3-Benzenetriol	-551.1		-434.2									
$\text{C}_6\text{H}_6\text{O}_3$	1,2,4-Benzenetriol	-563.8		-444.0									
$\text{C}_6\text{H}_6\text{O}_3$	1,3,5-Benzenetriol	-584.6		-452.9									
$\text{C}_6\text{H}_6\text{O}_3$	3,4-Dimethyl-2,5-furandione	-581.4											
$\text{C}_6\text{H}_6\text{O}_6$	<i>cis</i> -1-Propene-1,2,3-tricarboxylic acid	-1224.4											
$\text{C}_6\text{H}_6\text{O}_6$	<i>trans</i> -1-Propene-1,2,3-tricarboxylic acid	-1232.7											
$\text{C}_6\text{H}_6\text{S}$	Benzenethiol		63.7	111.3					222.8			173.2	
$\text{C}_6\text{H}_7\text{N}$	Aniline		31.6	87.5		-7.0				317.9		191.9	107.9
$\text{C}_6\text{H}_7\text{N}$	2-Methylpyridine		56.7	99.2								158.6	
$\text{C}_6\text{H}_7\text{N}$	3-Methylpyridine		61.9	106.4						216.3		158.7	
$\text{C}_6\text{H}_7\text{N}$	4-Methylpyridine		59.2	103.8						209.1		159.0	
$\text{C}_6\text{H}_7\text{N}$	1-Cyclopentene carbonitrile		111.5	156.5									
$\text{C}_6\text{H}_8\text{N}_2$	Adiponitrile		85.1	149.5								128.7	
$\text{C}_6\text{H}_8\text{N}_2$	<i>o</i> -Phenylenediamine	-0.3											
$\text{C}_6\text{H}_8\text{N}_2$	<i>m</i> -Phenylenediamine	-7.8							154.5		159.6		
$\text{C}_6\text{H}_8\text{N}_2$	<i>p</i> -Phenylenediamine	3.0											
$\text{C}_6\text{H}_8\text{N}_2$	Phenylhydrazine		141.0	202.9								217.0	
$\text{C}_6\text{H}_8\text{N}_2\text{S}$	Bis(2-cyanoethyl) sulfide		96.3										
$\text{C}_6\text{H}_8\text{O}_4$	Dimethyl maleate											263.2	
$\text{C}_6\text{H}_8\text{O}_6$	<i>L</i> -Ascorbic acid	-1164.6											
$\text{C}_6\text{H}_8\text{O}_7$	2-Hydroxy-1,2,3-propane-tricarboxylic acid	-1543.8											
$\text{C}_6\text{H}_9\text{Cl}_3\text{O}_2$	Butyl trichloroacetate		-545.8	-492.3									
$\text{C}_6\text{H}_9\text{Cl}_3\text{O}_2$	Isobutyl trichloroacetate		-553.4	-500.2									
$\text{C}_6\text{H}_9\text{N}$	Cyclopentanecarbonitrile		0.7	44.1									
$\text{C}_6\text{H}_9\text{N}$	2,4-Dimethylpyrrole	-422.3											
$\text{C}_6\text{H}_9\text{N}$	2,5-Dimethylpyrrole		-16.7	39.8									
$\text{C}_6\text{H}_9\text{NO}_3$	Triacetamide		-610.5	-550.1									
$\text{C}_6\text{H}_9\text{NO}_6$	Nitilotriacetic acid	-1311.9											
$\text{C}_6\text{H}_9\text{N}_3\text{O}_2$	<i>L</i> -Histidine	-466.7											
$\text{C}_6\text{H}_{10}$	1,5-Hexadiene		54.1	84.2									
$\text{C}_6\text{H}_{10}$	3,3-Dimethyl-1-butene		78.4										
$\text{C}_6\text{H}_{10}$	Cyclohexene		-38.5	-5.0					214.6			148.3	
$\text{C}_6\text{H}_{10}$	1-Methylcyclopentene		-36.4	-3.8									
$\text{C}_6\text{H}_{10}$	3-Methylcyclopentene		-23.7	7.4									

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
$\text{C}_6\text{H}_{10}$	4-Methylcyclopentene		-17.6	14.6									
$\text{C}_6\text{H}_{10}\text{Cl}_2\text{O}_2$	Butyl dichloroacetate		-550.1	-497.8									
$\text{C}_6\text{H}_{10}\text{O}$	Cyclohexanone		-271.2	-226.1								182.2	
$\text{C}_6\text{H}_{10}\text{O}$	2-Methylcyclopentanone		-265.2										
$\text{C}_6\text{H}_{10}\text{O}$	Mesityl oxide												212.5
$\text{C}_6\text{H}_{10}\text{O}_2$	Ethyl <i>trans</i> -2-butenate		-420.0	-375.6									
$\text{C}_6\text{H}_{10}\text{O}_2$	Methyl cyclobutane- carboxylate		-395.0	-350.2									
$\text{C}_6\text{H}_{10}\text{O}_3$	Ethyl acetoacetate												248.0
$\text{C}_6\text{H}_{10}\text{O}_3$	Propanoic anhydride		-679.1	-626.5									
$\text{C}_6\text{H}_{10}\text{O}_4$	Adipic acid	-994.3											
$\text{C}_6\text{H}_{10}\text{O}_4$	Diethyl oxalate		-805.5	-742.0									
$\text{C}_6\text{H}_{10}\text{O}_4$	Ethylene glycol diacetate												310.0
$\text{C}_6\text{H}_{11}\text{Cl}$	Chlorocyclohexane		-207.2	-163.7									
$\text{C}_6\text{H}_{11}\text{ClO}_2$	Ethyl 4-chlorobutanoate		-566.5	-513.8									
$\text{C}_6\text{H}_{11}\text{ClO}_2$	Propyl 3-chloropropanoate		-537.6	-485.7									
$\text{C}_6\text{H}_{11}\text{ClO}_2$	Butyl chloroacetate		-538.4	-487.4									
$\text{C}_6\text{H}_{11}\text{NO}$	Caprolactam	-329.4		-239.6								156.8	
$\text{C}_6\text{H}_{11}\text{NO}$	1-Methyl-2-piperidinone		-293.0										
$\text{C}_6\text{H}_{12}$	1-Hexene		-74.2	-43.5					295.2				183.3
$\text{C}_6\text{H}_{12}$	<i>cis</i> -2-Hexene		-83.9	-52.3									
$\text{C}_6\text{H}_{12}$	<i>trans</i> -2-Hexene		-85.5	-53.9									
$\text{C}_6\text{H}_{12}$	<i>cis</i> -3-Hexene		-78.9	-47.6									
$\text{C}_6\text{H}_{12}$	<i>trans</i> -3-Hexene		-86.1	-54.4									
$\text{C}_6\text{H}_{12}$	2-Methyl-1-pentene		-90.0	-59.4									
$\text{C}_6\text{H}_{12}$	3-Methyl-1-pentene		-78.2	-49.5									
$\text{C}_6\text{H}_{12}$	4-Methyl-1-pentene		-80.0	-51.3									
$\text{C}_6\text{H}_{12}$	3-Methyl- <i>cis</i> -2-pentene		-94.5	-62.3									
$\text{C}_6\text{H}_{12}$	4-Methyl- <i>cis</i> -2-pentene		-87.0	-57.5									
$\text{C}_6\text{H}_{12}$	3-Methyl- <i>trans</i> -2-pentene		-94.6	-63.1									
$\text{C}_6\text{H}_{12}$	4-Methyl- <i>trans</i> -2-pentene		-91.6	-61.5									
$\text{C}_6\text{H}_{12}$	2-Ethyl-1-butene		-87.1	-56.0									
$\text{C}_6\text{H}_{12}$	2,3-Dimethyl-1-butene		-93.2	-62.4									
$\text{C}_6\text{H}_{12}$	3,3-Dimethyl-1-butene		-87.5	-60.3									
$\text{C}_6\text{H}_{12}$	2,3-Dimethyl-2-butene		-101.4	-68.1					270.2				174.7
$\text{C}_6\text{H}_{12}$	Cyclohexane		-156.4	-123.4									154.9
$\text{C}_6\text{H}_{12}$	Methylcyclopentane		-137.9	-106.2									
$\text{C}_6\text{H}_{12}$	Ethylcyclobutane		-59.0	-27.5									
$\text{C}_6\text{H}_{12}$	1,1,2-Trimethylcyclo- propane		-96.2										
$\text{C}_6\text{H}_{12}$	2-Methyl-2-pentene		-98.5	-66.9									
$\text{C}_6\text{H}_{12}\text{N}_2\text{O}_4\text{S}_2$	<i>L</i> -Cystine	-1032.7											
$\text{C}_6\text{H}_{12}\text{O}$	Cyclohexanol		-348.2	-286.2									208.2
$\text{C}_6\text{H}_{12}\text{O}$	<i>cis</i> -2-Methylcyclopentanol		-345.5										
$\text{C}_6\text{H}_{12}\text{O}$	Butyl vinyl ether		-218.8	-182.6									232.0

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>6</sub> H <sub>12</sub> O	2-Hexanone		-322.0	-278.9									213.3
C <sub>6</sub> H <sub>12</sub> O	3-Hexanone		-320.2	-277.6				305.3					216.9
C <sub>6</sub> H <sub>12</sub> O	Methyl isobutyl ketone												213.3
C <sub>6</sub> H <sub>12</sub> O	2-Methyl-3-pentanone		-325.9	-286.0									
C <sub>6</sub> H <sub>12</sub> O	3,3-Dimethyl-2-butanone		-328.6	-290.6									
C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Hexanoic acid		-583.8	-511.9									
C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Butyl acetate		-529.2	-485.3									227.8
C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Isobutyl acetate												233.8
C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Ethyl butanoate												228.0
C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Methyl pentanoate		-514.2	-471.1									229.3
C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Methyl 2,2-dimethylpropanoate		-530.0	-491.2									257.9
C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Diacetone alcohol												221.3
C <sub>6</sub> H <sub>12</sub> O <sub>3</sub>	Ethylene glycol ethyl ether acetate												376.0
C <sub>6</sub> H <sub>12</sub> O <sub>3</sub>	Paraldehyde		-673.1	-631.7									
C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>	$\beta$ -D-Fructose	-1265.6											
C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>	D-Galactose	-1286.3											
C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>	$\alpha$ -D-Glucose	-1273.3											
C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>	D-Mannose	-1263.0											
C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>	L-Sorbose	-1271.5											
C <sub>6</sub> H <sub>12</sub> S	Cyclohexanethiol		-140.7	-96.2					255.6				192.6
C <sub>6</sub> H <sub>12</sub> S	Cyclopentyl methyl sulfide		-109.8	-64.7									
C <sub>6</sub> H <sub>13</sub> Br	1-Bromohexane		-194.2	-148.3					453.0				203.5
C <sub>6</sub> H <sub>13</sub> Cl	2-Chlorohexane		-246.1	-204.3									
C <sub>6</sub> H <sub>13</sub> N	Cyclohexylamine		-147.6	-104.0									
C <sub>6</sub> H <sub>13</sub> N	( $\pm$ )-2-Methylpiperidine		-124.9	-84.4									
C <sub>6</sub> H <sub>13</sub> NO	Hexanamide		-397.9	-324.2									
C <sub>6</sub> H <sub>13</sub> NO	N-Butylacetamide		-380.9	-305.9									
C <sub>6</sub> H <sub>13</sub> NO <sub>2</sub>	DL-Leucine	-640.6											
C <sub>6</sub> H <sub>13</sub> NO <sub>2</sub>	D-Leucine	-637.3											
C <sub>6</sub> H <sub>13</sub> NO <sub>2</sub>	L-Leucine	-637.4		-486.8							200.1		
C <sub>6</sub> H <sub>13</sub> NO <sub>2</sub>	DL-Isoleucine	-635.3											
C <sub>6</sub> H <sub>13</sub> NO <sub>2</sub>	L-Isoleucine	-637.8											
C <sub>6</sub> H <sub>13</sub> NO <sub>2</sub>	Norleucine	-639.1											
C <sub>6</sub> H <sub>13</sub> NO <sub>2</sub>	6-Aminohexanoic acid	-637.3											
C <sub>6</sub> H <sub>14</sub>	Hexane		-198.7	-166.9									195.6
C <sub>6</sub> H <sub>14</sub>	2-Methylpentane		-204.6	-174.6					290.6				193.7
C <sub>6</sub> H <sub>14</sub>	3-Methylpentane		-202.4	-171.9					292.5				190.7
C <sub>6</sub> H <sub>14</sub>	2,2-Dimethylbutane		-213.8	-185.9					272.5				191.9
C <sub>6</sub> H <sub>14</sub>	2,3-Dimethylbutane		-207.4	-178.1					287.8				189.7
C <sub>6</sub> H <sub>14</sub> N <sub>2</sub>	Azopropane		11.5	51.3									
C <sub>6</sub> H <sub>14</sub> N <sub>2</sub> O <sub>2</sub>	Lysine	-678.7											
C <sub>6</sub> H <sub>14</sub> N <sub>4</sub> O <sub>2</sub>	D-Arginine	-623.5						250.6			232.0		
C <sub>6</sub> H <sub>14</sub> O	1-Hexanol		-377.5	-315.9								287.4	240.4

Molecular formula	Name	$\Delta_f H^\circ/\text{kJ mol}^{-1}$			$\Delta_f G^\circ/\text{kJ mol}^{-1}$			$S^\circ/\text{J mol}^{-1} \text{K}^{-1}$			$C_p/\text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>6</sub> H <sub>14</sub> O	2-Hexanol		-392.0	-333.5									
C <sub>6</sub> H <sub>14</sub> O	3-Hexanol		-392.4									286.2	
C <sub>6</sub> H <sub>14</sub> O	2-Methyl-1-pentanol											248.0	
C <sub>6</sub> H <sub>14</sub> O	3-Methyl-2-pentanol											275.9	
C <sub>6</sub> H <sub>14</sub> O	4-Methyl-2-pentanol		-394.7									273.0	
C <sub>6</sub> H <sub>14</sub> O	2-Methyl-3-pentanol		-396.4										
C <sub>6</sub> H <sub>14</sub> O	3-Methyl-3-pentanol											293.4	
C <sub>6</sub> H <sub>14</sub> O	Dipropyl ether		-328.8	-293.0				323.9				221.6	
C <sub>6</sub> H <sub>14</sub> O	Diisopropyl ether		-351.5	-319.2								216.8	
C <sub>6</sub> H <sub>14</sub> O	Butyl ethyl ether											159.0	
C <sub>6</sub> H <sub>14</sub> O	Ethyl <i>tert</i> -butyl ether			-313.9									
C <sub>6</sub> H <sub>14</sub> OS	Dipropyl sulfoxide		-329.4	-254.9									
C <sub>6</sub> H <sub>14</sub> O <sub>2</sub>	1,2-Hexanediol		-577.1	-490.1									
C <sub>6</sub> H <sub>14</sub> O <sub>2</sub>	1,6-Hexanediol	-569.9	-548.6	-461.2									
C <sub>6</sub> H <sub>14</sub> O <sub>2</sub>	Hexylene glycol											336.0	
C <sub>6</sub> H <sub>14</sub> O <sub>2</sub>	Ethylene glycol monobutyl ether											281.0	
C <sub>6</sub> H <sub>14</sub> O <sub>2</sub>	1,1-Diethoxyethane		-491.4	-453.5									
C <sub>6</sub> H <sub>14</sub> O <sub>2</sub>	1,2-Diethoxyethane		-451.4	-408.1								259.4	
C <sub>6</sub> H <sub>14</sub> O <sub>3</sub>	Diethylene glycol monoethyl ether											301.0	
C <sub>6</sub> H <sub>14</sub> O <sub>3</sub>	Diethylene glycol dimethyl ether											274.1	
C <sub>6</sub> H <sub>14</sub> O <sub>3</sub>	Trimethylolpropane	-750.9											
C <sub>6</sub> H <sub>14</sub> O <sub>4</sub>	Triethylene glycol		-804.3	-725.0									
C <sub>6</sub> H <sub>14</sub> O <sub>4</sub> S	Dipropyl sulfate		-859.0	-792.0									
C <sub>6</sub> H <sub>14</sub> O <sub>6</sub>	Galactitol		-1317.0										
C <sub>6</sub> H <sub>14</sub> O <sub>6</sub>	<i>D</i> -Mannitol		-1314.5										
C <sub>6</sub> H <sub>14</sub> S	1-Hexanethiol		-175.7	-129.9									
C <sub>6</sub> H <sub>14</sub> S	2-Methyl-2-pentanethiol		-188.3	-148.3									
C <sub>6</sub> H <sub>14</sub> S	2,3-Dimethyl-2-butanethiol		-187.1	-147.9									
C <sub>6</sub> H <sub>14</sub> S	Diisopropyl sulfide		-181.6	-142.0					313.0			232.0	
C <sub>6</sub> H <sub>14</sub> S	Butyl ethyl sulfide		-172.3	-127.8									
C <sub>6</sub> H <sub>14</sub> S	Methyl pentyl sulfide		-167.1	-121.8									
C <sub>6</sub> H <sub>14</sub> S <sub>2</sub>	Dipropyl disulfide		-171.5	-118.3									
C <sub>6</sub> H <sub>15</sub> B	Triethylborane		-194.6	-157.7		9.4	16.1		336.7	437.8		241.2	
C <sub>6</sub> H <sub>15</sub> N	Dipropylamine		-156.1	-116.0									
C <sub>6</sub> H <sub>15</sub> N	Diisopropylamine		-178.5	-143.8									
C <sub>6</sub> H <sub>15</sub> N	Triethylamine		-127.7	-92.7								219.9	
C <sub>6</sub> H <sub>15</sub> NO	2-Diethylaminoethanol		-305.9										
C <sub>6</sub> H <sub>15</sub> NO <sub>3</sub>	Triethanolamine	-664.2		-558.3							389.0		
C <sub>6</sub> H <sub>18</sub> N <sub>3</sub> OP	Hexamethylphosphoric triamide											321.0	
C <sub>6</sub> H <sub>18</sub> OSi <sub>2</sub>	Hexamethyldisiloxane		-815.0	-777.7		-541.5	-534.5		433.8	535.0		311.4	238.5
C <sub>6</sub> MoO <sub>6</sub>	Molybdenum hexacarbonyl	-982.8		-912.1	-877.7		-856.0	325.9		490.0	242.3		205.0

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>6</sub> N <sub>4</sub>	Tetracyanoethylene	623.8		705.0									
C <sub>7</sub> F <sub>8</sub>	Perfluorotoluene		-1311.1					355.5				262.3	
C <sub>7</sub> F <sub>14</sub>	Perfluoromethylcyclohexane		-2931.1	-2897.2								353.1	
C <sub>7</sub> F <sub>16</sub>	Perfluoroheptane		-3420.0	-3383.6					561.8			419.0	
C <sub>7</sub> H <sub>3</sub> F <sub>5</sub>	2,3,4,5,6-Pentafluorotoluene		-883.8	-842.7					306.4			225.8	
C <sub>7</sub> H <sub>4</sub> Cl <sub>2</sub> O	<i>m</i> -Chlorobenzoyl chloride		-189.7										
C <sub>7</sub> H <sub>4</sub> N <sub>2</sub> O <sub>6</sub>	3,5-Dinitrobenzoic acid	-409.8											
C <sub>7</sub> H <sub>5</sub> ClO	Benzoyl chloride		-158.0	-103.2									
C <sub>7</sub> H <sub>5</sub> ClO <sub>2</sub>	<i>o</i> -Chlorobenzoic acid	-404.5		-325.0									
C <sub>7</sub> H <sub>5</sub> ClO <sub>2</sub>	<i>o</i> -Chlorobenzoic acid	-424.3		-342.3									
C <sub>7</sub> H <sub>5</sub> ClO <sub>2</sub>	<i>p</i> -Chlorobenzoic acid	-428.9		-341.0							163.2		
C <sub>7</sub> H <sub>5</sub> F <sub>3</sub>	(Trifluoromethyl)benzene											188.4	
C <sub>7</sub> H <sub>5</sub> N	Benzonitrile		163.2	215.7					209.1			165.2	
C <sub>7</sub> H <sub>5</sub> NO	Benzoxazole	-24.2		44.8									
C <sub>7</sub> H <sub>5</sub> NO <sub>4</sub>	2-Nitrobenzoic acid	-378.8											
C <sub>7</sub> H <sub>5</sub> NO <sub>4</sub>	3-Nitrobenzoic acid	-394.7											
C <sub>7</sub> H <sub>5</sub> NO <sub>4</sub>	4-Nitrobenzoic acid	-392.2											
C <sub>7</sub> H <sub>6</sub> N <sub>2</sub>	1 <i>H</i> -Benzimidazole	79.5		181.7									
C <sub>7</sub> H <sub>6</sub> N <sub>2</sub>	1 <i>H</i> -Indazole	151.9		243.0									
C <sub>7</sub> H <sub>6</sub> O	Benzaldehyde		-87.0	-36.7						221.2		172.0	
C <sub>7</sub> H <sub>6</sub> O <sub>2</sub>	Benzoic acid	-385.2		-294.0				167.6			146.8		
C <sub>7</sub> H <sub>6</sub> O <sub>2</sub>	3-(2-Furanyl)-2-propenal	-182.0		-105.9									
C <sub>7</sub> H <sub>6</sub> O <sub>2</sub>	Salicylaldehyde											222.0	
C <sub>7</sub> H <sub>6</sub> O <sub>3</sub>	Salicylic acid	-589.9		-494.8									
C <sub>7</sub> H <sub>7</sub> Cl	<i>o</i> -Chlorotoluene											166.8	
C <sub>7</sub> H <sub>7</sub> Cl	(Chloromethyl)benzene		-32.5	18.9									
C <sub>7</sub> H <sub>7</sub> F	<i>p</i> -Fluorotoluene		-186.9	-147.4								171.2	
C <sub>7</sub> H <sub>7</sub> NO	Benzamide	-202.6		-100.9									
C <sub>7</sub> H <sub>7</sub> NO <sub>2</sub>	2-Aminobenzoic acid		-380.4	-296.0									
C <sub>7</sub> H <sub>7</sub> NO <sub>2</sub>	Aniline-3-carboxylic acid		-389.8	-283.6									
C <sub>7</sub> H <sub>7</sub> NO <sub>2</sub>	Aniline-4-carboxylic acid		-391.9	-296.7									
C <sub>7</sub> H <sub>7</sub> NO <sub>2</sub>	<i>o</i> -Nitrotoluene		-9.7										
C <sub>7</sub> H <sub>7</sub> NO <sub>2</sub>	<i>m</i> -Nitrotoluene		-31.5										
C <sub>7</sub> H <sub>7</sub> NO <sub>2</sub>	<i>p</i> -Nitrotoluene	-48.1		31.0							172.3		
C <sub>7</sub> H <sub>7</sub> NO <sub>2</sub>	(Nitromethyl)benzene		-22.8	30.7									
C <sub>7</sub> H <sub>7</sub> NO <sub>2</sub>	Salicylaldoxime	-183.7											
C <sub>7</sub> H <sub>8</sub>	Toluene		12.4	50.5								157.3	
C <sub>7</sub> H <sub>8</sub> N <sub>2</sub> O	Phenylurea	-218.6											
C <sub>7</sub> H <sub>8</sub> O	<i>o</i> -Cresol	-204.6		-128.6				165.4			154.6		
C <sub>7</sub> H <sub>8</sub> O	<i>m</i> -Cresol		-194.0	-132.3						212.6		224.9	
C <sub>7</sub> H <sub>8</sub> O	<i>p</i> -Cresol	-199.3		-125.4				167.3			150.2		
C <sub>7</sub> H <sub>8</sub> O	Benzyl alcohol		-160.7	-100.4						216.7		217.9	
C <sub>7</sub> H <sub>8</sub> O	Anisole		-114.8	-67.9									
C <sub>7</sub> H <sub>9</sub> N	Benzylamine		34.2	94.4									
C <sub>7</sub> H <sub>9</sub> N	<i>o</i> -Methylaniline		-6.3	56.4				167.6			351.0		130.2

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>7</sub> H <sub>9</sub> N	<i>m</i> -Methylaniline		-8.1	54.6			165.4			352.5			125.5
C <sub>7</sub> H <sub>9</sub> N	<i>p</i> -Methylaniline	-23.5		55.3			167.7			347.0			126.2
C <sub>7</sub> H <sub>9</sub> N	<i>N</i> -Methylaniline												207.1
C <sub>7</sub> H <sub>9</sub> N	1-Cyclohexenecarbonitrile		48.1	101.6									
C <sub>7</sub> H <sub>9</sub> N	2,3-Dimethylpyridine		19.4	67.1					243.7				189.5
C <sub>7</sub> H <sub>9</sub> N	2,4-Dimethylpyridine		16.1	63.6					248.5				184.8
C <sub>7</sub> H <sub>9</sub> N	2,5-Dimethylpyridine		18.7	66.5					248.8				184.7
C <sub>7</sub> H <sub>9</sub> N	2,6-Dimethylpyridine		12.7	58.1					244.2				185.2
C <sub>7</sub> H <sub>9</sub> N	3,4-Dimethylpyridine		18.3	68.8					240.7				191.8
C <sub>7</sub> H <sub>9</sub> N	3,5-Dimethylpyridine		22.5	72.0					241.7				184.5
C <sub>7</sub> H <sub>10</sub> O <sub>2</sub>	Ethyl 2-pentynoate		-301.8	-250.3									
C <sub>7</sub> H <sub>10</sub> O <sub>2</sub>	Methyl 2-hexynoate		-242.7										
C <sub>7</sub> H <sub>11</sub> Cl <sub>3</sub> O <sub>2</sub>	3-Methylbutyl trichloroacetate		-580.9	-523.1									
C <sub>7</sub> H <sub>11</sub> N	Cyclohexanecarbonitrile		-47.2	4.8									
C <sub>7</sub> H <sub>12</sub>	Methylenecyclohexane		-61.3	-25.2									
C <sub>7</sub> H <sub>12</sub>	Vinylcyclopentane		-34.8										
C <sub>7</sub> H <sub>12</sub>	1-Ethylcyclopentene		-53.3	-19.8									
C <sub>7</sub> H <sub>12</sub>	Bicyclo[2.2.1]heptane	-95.1		-54.8									
C <sub>7</sub> H <sub>12</sub>	1-Methylbicyclo(3,1,0) hexane		-33.2	1.7									
C <sub>7</sub> H <sub>12</sub> O	2-Methylenecyclohexanol	-277.6											
C <sub>7</sub> H <sub>12</sub> O <sub>4</sub>	Diethyl malonate												285.0
C <sub>7</sub> H <sub>13</sub> ClO <sub>2</sub>	Butyl 2-chloropropanoate		-571.7	-517.3									
C <sub>7</sub> H <sub>13</sub> ClO <sub>2</sub>	Isobutyl 2-chloropropanoate		-603.1	-549.6									
C <sub>7</sub> H <sub>13</sub> ClO <sub>2</sub>	Butyl 3-chloropropanoate		-557.9	-502.3									
C <sub>7</sub> H <sub>13</sub> ClO <sub>2</sub>	Isobutyl 3-chloropropanoate		-572.6	-517.3									
C <sub>7</sub> H <sub>13</sub> ClO <sub>2</sub>	Propyl 2-chlorobutanoate		-630.7	-578.4									
C <sub>7</sub> H <sub>13</sub> N	Heptanenitrile		-82.8	-31.0									
C <sub>7</sub> H <sub>14</sub>	1-Heptene		-97.9	-62.3					327.6				211.8
C <sub>7</sub> H <sub>14</sub>	<i>cis</i> -2-Heptene		-105.1										
C <sub>7</sub> H <sub>14</sub>	<i>trans</i> -2-Heptene		-109.5										
C <sub>7</sub> H <sub>14</sub>	<i>cis</i> -3-Heptene		-104.3										
C <sub>7</sub> H <sub>14</sub>	<i>trans</i> -3-Heptene		-109.3										
C <sub>7</sub> H <sub>14</sub>	5-Methyl-1-hexene		-100.0	-65.7									
C <sub>7</sub> H <sub>14</sub>	3-Methyl- <i>cis</i> -3-hexene		-115.9	-79.4									
C <sub>7</sub> H <sub>14</sub>	3-Methyl- <i>trans</i> -3-hexene		-112.7	-76.8									
C <sub>7</sub> H <sub>14</sub>	2,4-Dimethyl-1-pentene		-117.0	-83.8									
C <sub>7</sub> H <sub>14</sub>	4,4-Dimethyl-1-pentene		-110.6	-81.6									
C <sub>7</sub> H <sub>14</sub>	2,4-Dimethyl-2-pentene		-123.1	-88.7									
C <sub>7</sub> H <sub>14</sub>	<i>cis</i> -4,4-Dimethyl-2-pentene		-105.3	-72.6									
C <sub>7</sub> H <sub>14</sub>	<i>trans</i> -4,4-Dimethyl-2-pentene		-121.7	-88.8									
C <sub>7</sub> H <sub>14</sub>	2-Ethyl-3-methyl-1-butene		-114.1	-79.5									
C <sub>7</sub> H <sub>14</sub>	2,3,3-Trimethyl-1-butene		-117.7	-85.5									
C <sub>7</sub> H <sub>14</sub>	Cycloheptane		-156.6	-118.1									
C <sub>7</sub> H <sub>14</sub>	Methylcyclohexane		-190.1	-154.7									184.8

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>7</sub> H <sub>14</sub>	Ethylcyclopentane		-163.4	-126.9				279.9					
C <sub>7</sub> H <sub>14</sub>	1,1-Dimethylcyclopentane		-172.1	-138.2									
C <sub>7</sub> H <sub>14</sub>	<i>cis</i> -1,2-Dimethylcyclopentane		-165.3	-129.5				269.2					
C <sub>7</sub> H <sub>14</sub>	<i>trans</i> -1,2-Dimethylcyclopentane		-171.2	-136.6									
C <sub>7</sub> H <sub>14</sub>	<i>cis</i> -1,3-Dimethylcyclopentane		-170.1	-135.8									
C <sub>7</sub> H <sub>14</sub>	<i>trans</i> -1,3-Dimethylcyclopentane		-168.1	-133.6									
C <sub>7</sub> H <sub>14</sub>	1,1,2,2-Tetramethylcyclopropane		-119.8										
C <sub>7</sub> H <sub>14</sub> Br <sub>2</sub>	1,2-Dibromoheptane		-212.3	-157.9									
C <sub>7</sub> H <sub>14</sub> O	1-Heptanal		-311.5	-263.8				335.4				230.1	
C <sub>7</sub> H <sub>14</sub> O	2-Heptanone											232.6	
C <sub>7</sub> H <sub>14</sub> O	2,2-Dimethyl-3-pentanone		-356.1	-313.6									
C <sub>7</sub> H <sub>14</sub> O	2,4-Dimethyl-3-pentanone		-352.9	-311.3				318.0				233.7	
C <sub>7</sub> H <sub>14</sub> O	<i>cis</i> -2-Methylcyclohexanol		-390.2	-327.0									
C <sub>7</sub> H <sub>14</sub> O	<i>trans</i> -2-Methylcyclohexanol		-415.7	-352.5									
C <sub>7</sub> H <sub>14</sub> O	<i>cis</i> -3-Methylcyclohexanol		-416.1	-350.9									
C <sub>7</sub> H <sub>14</sub> O	<i>trans</i> -3-Methylcyclohexanol		-394.4	-329.1									
C <sub>7</sub> H <sub>14</sub> O	<i>cis</i> -4-Methylcyclohexanol		-413.2	-347.5									
C <sub>7</sub> H <sub>14</sub> O	<i>trans</i> -4-Methylcyclohexanol		-433.3	-367.2									
C <sub>7</sub> H <sub>14</sub> O <sub>2</sub>	Heptanoic acid		-610.2	-536.2								265.4	
C <sub>7</sub> H <sub>14</sub> O <sub>2</sub>	Pentyl acetate											261.0	
C <sub>7</sub> H <sub>14</sub> O <sub>2</sub>	Isopentyl acetate											248.5	
C <sub>7</sub> H <sub>14</sub> O <sub>2</sub>	Ethyl pentanoate		-553.0	-505.9									
C <sub>7</sub> H <sub>14</sub> O <sub>2</sub>	Ethyl 3-methylbutanoate		-571.0	-527.0									
C <sub>7</sub> H <sub>14</sub> O <sub>2</sub>	Ethyl 2,2-dimethylpropanoate		-577.2	-536.0									
C <sub>7</sub> H <sub>14</sub> O <sub>2</sub>	Methyl hexanoate		-540.2	-492.2									
C <sub>7</sub> H <sub>14</sub> O <sub>6</sub>	$\alpha$ -Methylglucoside	-1233.3											
C <sub>7</sub> H <sub>15</sub> Br	1-Bromoheptane		-218.4	-167.8									
C <sub>7</sub> H <sub>16</sub>	Heptane		-224.2	-187.6								224.7	
C <sub>7</sub> H <sub>16</sub>	2-Methylhexane		-229.5	-194.5				323.3				222.9	
C <sub>7</sub> H <sub>16</sub>	3-Methylhexane		-226.4	-191.3									
C <sub>7</sub> H <sub>16</sub>	3-Ethylpentane		-224.9	-189.5				314.5				219.6	
C <sub>7</sub> H <sub>16</sub>	2,2-Dimethylpentane		-238.3	-205.7				300.3				221.1	
C <sub>7</sub> H <sub>16</sub>	2,3-Dimethylpentane		-233.1	-198.7									
C <sub>7</sub> H <sub>16</sub>	2,4-Dimethylpentane		-234.6	-201.6				303.2				224.2	
C <sub>7</sub> H <sub>16</sub>	3,3-Dimethylpentane		-234.2	-201.0									
C <sub>7</sub> H <sub>16</sub>	2,2,3-Trimethylbutane		-236.5	-204.4				292.2				213.5	
C <sub>7</sub> H <sub>16</sub> O	1-Heptanol		-403.3	-336.5								272.1	
C <sub>7</sub> H <sub>16</sub> O	<i>tert</i> -Butyl isopropyl ether		-392.8	-358.1									
C <sub>7</sub> H <sub>16</sub> O <sub>2</sub>	1,7-Heptanediol		-574.2										

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>7</sub> H <sub>16</sub> O <sub>2</sub>	2,2-Diethoxypropane		-538.9	-506.9									
C <sub>7</sub> H <sub>16</sub> S	1-Heptanethiol		-200.5	-149.9									
C <sub>8</sub> H <sub>4</sub> O <sub>3</sub>	Phthalic anhydride	-460.1		-371.4			180.0				160.0		
C <sub>8</sub> H <sub>5</sub> NO <sub>2</sub>	1 <i>H</i> -Indole-2,3-dione	-268.2											
C <sub>8</sub> H <sub>6</sub> O <sub>4</sub>	Phthalic acid	-782.0					207.9				188.1		
C <sub>8</sub> H <sub>6</sub> O <sub>4</sub>	Isophthalic acid	-803.0		-696.3									
C <sub>8</sub> H <sub>6</sub> O <sub>4</sub>	Terephthalic acid	-816.1		-717.9									
C <sub>8</sub> H <sub>6</sub> S	Benzo[b]thiophene	100.6		166.3									
C <sub>8</sub> H <sub>7</sub> N	1 <i>H</i> -Indole	86.6		156.5									
C <sub>8</sub> H <sub>8</sub>	Styrene		103.8	147.9								182.0	
C <sub>8</sub> H <sub>8</sub> O	Phenyl vinyl ether		-26.2	22.7									
C <sub>8</sub> H <sub>8</sub> O	Acetophenone		-142.5	-86.7									
C <sub>8</sub> H <sub>8</sub> O <sub>2</sub>	<i>o</i> -Toluic acid	-416.5									174.9		
C <sub>8</sub> H <sub>8</sub> O <sub>2</sub>	<i>m</i> -Toluic acid	-426.1									163.6		
C <sub>8</sub> H <sub>8</sub> O <sub>2</sub>	<i>p</i> -Toluic acid	-429.2									169.0		
C <sub>8</sub> H <sub>8</sub> O <sub>2</sub>	Methyl benzoate		-343.5	-287.9								221.3	
C <sub>8</sub> H <sub>8</sub> O <sub>3</sub>	Methyl salicylate											249.0	
C <sub>8</sub> H <sub>10</sub>	1,7-Octadiyne		334.4										
C <sub>8</sub> H <sub>10</sub>	Ethylbenzene		-12.3	29.9								183.2	
C <sub>8</sub> H <sub>10</sub>	<i>o</i> -Xylene		-24.4	19.1								186.1	
C <sub>8</sub> H <sub>10</sub>	<i>m</i> -Xylene		-25.4	17.3								183.0	
C <sub>8</sub> H <sub>10</sub>	<i>p</i> -Xylene		-24.4	18.0								181.5	
C <sub>8</sub> H <sub>10</sub> O	<i>o</i> -Ethylphenol		-208.8	-145.2									
C <sub>8</sub> H <sub>10</sub> O	<i>m</i> -Ethylphenol		-214.3	-146.1									
C <sub>8</sub> H <sub>10</sub> O	<i>p</i> -Ethylphenol	-224.4		-144.1							206.9		
C <sub>8</sub> H <sub>10</sub> O	2,3-Xylenol	-241.1		-157.2									
C <sub>8</sub> H <sub>10</sub> O	2,4-Xylenol		-228.7	-163.8									
C <sub>8</sub> H <sub>10</sub> O	2,5-Xylenol	-246.6		-161.6									
C <sub>8</sub> H <sub>10</sub> O	2,6-Xylenol	-237.4		-162.1									
C <sub>8</sub> H <sub>10</sub> O	3,4-Xylenol	-242.3		-157.3									
C <sub>8</sub> H <sub>10</sub> O	3,5-Xylenol	-244.4		-162.4									
C <sub>8</sub> H <sub>10</sub> O	Phenetole		-152.6	-101.6								228.5	
C <sub>8</sub> H <sub>10</sub> O <sub>2</sub>	Veratrole		-290.3	-223.3									
C <sub>8</sub> H <sub>11</sub> N	<i>N</i> -Ethylaniline		4.0	56.3									
C <sub>8</sub> H <sub>11</sub> N	<i>N,N</i> -Dimethylaniline		47.7	100.5									
C <sub>8</sub> H <sub>11</sub> N	2,6-Xylidine											238.9	
C <sub>8</sub> H <sub>12</sub>	1-Octen-3-yne		140.7										
C <sub>8</sub> H <sub>12</sub>	<i>cis</i> -1,2-Divinylcyclo- butane		124.3	166.5									
C <sub>8</sub> H <sub>12</sub>	<i>trans</i> -1,2-Divinylcyclo- butane		101.3	143.5									
C <sub>8</sub> H <sub>12</sub> N <sub>4</sub>	2,2'-Azobis[isobutyronitrile]	228.9											
C <sub>8</sub> H <sub>12</sub> O <sub>2</sub>	2,2,4,4-Tetramethyl-1,3- cyclobutanedione	-379.9		-307.6									
C <sub>8</sub> H <sub>14</sub>	Ethylidenecyclohexane		-103.5	-59.5									

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>8</sub> H <sub>14</sub>	Allylcyclopentane		-64.5	-24.1									
C <sub>8</sub> H <sub>14</sub> O <sub>3</sub>	Butanoic anhydride												283.7
C <sub>8</sub> H <sub>15</sub> ClO <sub>2</sub>	3-Methylbutyl 2-chloropropanoate		-627.3	-575.0									
C <sub>8</sub> H <sub>15</sub> ClO <sub>2</sub>	3-Methylbutyl 3-chloropropanoate		-593.4	-539.4									
C <sub>8</sub> H <sub>15</sub> N	Octanenitrile		-107.3	-50.5									
C <sub>8</sub> H <sub>16</sub>	1-Octene		-121.8	-81.3									241.0
C <sub>8</sub> H <sub>16</sub>	<i>cis</i> -2-Octene		-135.7										239.0
C <sub>8</sub> H <sub>16</sub>	<i>trans</i> -2-Octene		-135.7										239.0
C <sub>8</sub> H <sub>16</sub>	2,2-Dimethyl- <i>cis</i> -3-hexene		-126.4	-89.3									
C <sub>8</sub> H <sub>16</sub>	2,2-Dimethyl- <i>trans</i> -3-hexene		-144.9	-107.7									
C <sub>8</sub> H <sub>16</sub>	3-Ethyl-2-methyl-1-pentene		-137.9	-100.3									
C <sub>8</sub> H <sub>16</sub>	2,4,4-Trimethyl-1-pentene		-145.9	-110.5									
C <sub>8</sub> H <sub>16</sub>	2,4,4-Trimethyl-2-pentene		-142.4	-104.9									
C <sub>8</sub> H <sub>16</sub>	Cyclooctane		-167.7	-124.4									
C <sub>8</sub> H <sub>16</sub>	Ethylcyclohexane		-212.1	-171.5					280.9				211.8
C <sub>8</sub> H <sub>16</sub>	1,1-Dimethylcyclohexane		-218.7	-180.9					267.2				209.2
C <sub>8</sub> H <sub>16</sub>	<i>cis</i> -1,2-Dimethylcyclohexane		-211.8	-172.1					274.1				210.2
C <sub>8</sub> H <sub>16</sub>	<i>trans</i> -1,2-Dimethylcyclohexane		-218.2	-179.9					273.2				209.4
C <sub>8</sub> H <sub>16</sub>	<i>cis</i> -1,3-Dimethylcyclohexane		-222.9	-184.6					272.6				209.4
C <sub>8</sub> H <sub>16</sub>	<i>trans</i> -1,3-Dimethylcyclohexane		-215.7	-176.5					276.3				212.8
C <sub>8</sub> H <sub>16</sub>	<i>cis</i> -1,4-Dimethylcyclohexane		-215.6	-176.6					271.1				212.1
C <sub>8</sub> H <sub>16</sub>	<i>trans</i> -1,4-Dimethylcyclohexane		-222.4	-184.5					268.0				210.2
C <sub>8</sub> H <sub>16</sub>	Propylcyclopentane		-188.8	-147.7					310.8				216.3
C <sub>8</sub> H <sub>16</sub>	1-Ethyl-1-methylcyclopentane		-193.8										
C <sub>8</sub> H <sub>16</sub>	<i>cis</i> -1-Ethyl-2-methylcyclopentane		-190.8										
C <sub>8</sub> H <sub>16</sub>	<i>trans</i> -1-Ethyl-2-methylcyclopentane		-195.1	-156.2									
C <sub>8</sub> H <sub>16</sub>	<i>cis</i> -1-Ethyl-3-methylcyclopentane		-194.4										
C <sub>8</sub> H <sub>16</sub>	<i>trans</i> -1-Ethyl-3-methylcyclopentane		-196.0										
C <sub>8</sub> H <sub>16</sub> O	2-Ethylhexanal		-348.5	-299.6									
C <sub>8</sub> H <sub>16</sub> O	2-Octanone												273.3
C <sub>8</sub> H <sub>16</sub> O	2,2,4-Trimethyl-3-pentanone		-381.6	-338.3									
C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	Octanoic acid		-636.0	-554.3									297.9
C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	2-Ethylhexanoic acid		-635.1	-559.5									
C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	Hexyl acetate												282.8
C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	Propyl pentanoate		-583.0	-533.6									
C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	Isopropyl pentanoate		-592.2	-544.9									

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
$\text{C}_8\text{H}_{16}\text{O}_2$	Methyl heptanoate		-567.1	-515.5									285.1
$\text{C}_8\text{H}_{17}\text{Br}$	1-Bromooctane		-245.1	-189.3									
$\text{C}_8\text{H}_{17}\text{Cl}$	1-Chlorooctane		-291.3	-238.9									
$\text{C}_8\text{H}_{17}\text{NO}$	Octanamide	-473.2		-362.7									
$\text{C}_8\text{H}_{18}$	Octane		-250.1	-208.5									254.6
$\text{C}_8\text{H}_{18}$	2-Methylheptane		-255.0	-215.3					356.4				252.0
$\text{C}_8\text{H}_{18}$	3-Methylheptane		-252.3	-212.5					362.6				250.2
$\text{C}_8\text{H}_{18}$	4-Methylheptane		-251.6	-211.9									251.1
$\text{C}_8\text{H}_{18}$	3-Ethylhexane		-250.4	-210.7									
$\text{C}_8\text{H}_{18}$	2,2-Dimethylhexane		-261.9	-224.5									
$\text{C}_8\text{H}_{18}$	2,3-Dimethylhexane		-252.6	-213.8									
$\text{C}_8\text{H}_{18}$	2,4-Dimethylhexane		-257.0	-219.2									
$\text{C}_8\text{H}_{18}$	2,5-Dimethylhexane		-260.4	-222.5									249.2
$\text{C}_8\text{H}_{18}$	3,3-Dimethylhexane		-257.5	-219.9									246.6
$\text{C}_8\text{H}_{18}$	3,4-Dimethylhexane		-251.8	-212.8									
$\text{C}_8\text{H}_{18}$	3-Ethyl-2-methylpentane		-249.6	-211.0									
$\text{C}_8\text{H}_{18}$	3-Ethyl-3-methylpentane		-252.8	-214.8									
$\text{C}_8\text{H}_{18}$	2,2,3-Trimethylpentane		-256.9	-220.0									
$\text{C}_8\text{H}_{18}$	2,2,4-Trimethylpentane		-259.2	-224.0									239.1
$\text{C}_8\text{H}_{18}$	2,3,3-Trimethylpentane		-253.5	-216.3									245.6
$\text{C}_8\text{H}_{18}$	2,3,4-Trimethylpentane		-255.0	-217.3						329.3			247.3
$\text{C}_8\text{H}_{18}$	2,2,3,3-Tetramethylbutane	-269.0		-226.0				273.7					239.2
$\text{C}_8\text{H}_{18}\text{N}_2$	Azobutane		-40.1	9.2									
$\text{C}_8\text{H}_{18}\text{O}$	1-Octanol		-426.5	-355.6									305.2
$\text{C}_8\text{H}_{18}\text{O}$	2-Octanol												330.1
$\text{C}_8\text{H}_{18}\text{O}$	2-Ethyl-1-hexanol		-432.8	-365.3						347.0			317.5
$\text{C}_8\text{H}_{18}\text{O}$	Dibutyl ether		-377.9	-332.8									278.2
$\text{C}_8\text{H}_{18}\text{O}$	Di- <i>sec</i> -butyl ether		-401.5	-360.6									
$\text{C}_8\text{H}_{18}\text{O}$	Di- <i>tert</i> -butyl ether		-399.6	-362.0									276.1
$\text{C}_8\text{H}_{18}\text{O}$	<i>tert</i> -Butyl isobutyl ether		-409.1	-369.0									
$\text{C}_8\text{H}_{18}\text{O}_2$	1,8-Octanediol	-626.6											
$\text{C}_8\text{H}_{18}\text{O}_2$	2,5-Dimethyl-2,5-hexanediol	-681.7											
$\text{C}_8\text{H}_{18}\text{O}_3$	Diethylene glycol diethyl ether												341.4
$\text{C}_8\text{H}_{18}\text{O}_3\text{S}$	Dibutyl sulfite		-693.1	-625.3									
$\text{C}_8\text{H}_{18}\text{O}_5$	Tetraethylene glycol		-981.7	-883.0									428.8
$\text{C}_8\text{H}_{18}\text{S}$	Dibutyl sulfide		-220.7	-167.7						405.1			284.3
$\text{C}_8\text{H}_{18}\text{S}$	Di- <i>sec</i> -butyl sulfide		-220.7	-167.7									
$\text{C}_8\text{H}_{18}\text{S}$	Di- <i>tert</i> -butyl sulfide		-232.6	-188.8									
$\text{C}_8\text{H}_{18}\text{S}$	Diisobutyl sulfide		-229.2	-180.5									
$\text{C}_8\text{H}_{18}\text{S}_2$	Dibutyl disulfide		-222.9	-160.6									
$\text{C}_8\text{H}_{18}\text{S}_2$	Di- <i>tert</i> -butyl disulfide		-255.2	-201.0									
$\text{C}_8\text{H}_{19}\text{N}$	Dibutylamine		-206.0	-156.6									292.9
$\text{C}_8\text{H}_{19}\text{N}$	Diisobutylamine		-218.5	-179.2									

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>8</sub> H <sub>20</sub> BrN	Tetraethylammonium bromide	-342.7											
C <sub>8</sub> H <sub>20</sub> Pb	Tetraethyl lead		52.7	109.6				464.6					307.4
C <sub>8</sub> H <sub>20</sub> Si	Tetraethylsilane												298.1
C <sub>9</sub> H <sub>7</sub> N	Quinoline		141.2	200.5									
C <sub>9</sub> H <sub>7</sub> N	Isoquinoline		144.3	204.6				216.0					196.2
C <sub>9</sub> H <sub>7</sub> NO	2-Hydroxyquinoline	-144.9		-25.5									
C <sub>9</sub> H <sub>8</sub>	Indene		110.6	163.4				215.3					186.9
C <sub>9</sub> H <sub>8</sub> O <sub>4</sub>	2-(Acetyloxy)benzoic acid	-815.6											
C <sub>9</sub> H <sub>10</sub>	Cyclopropylbenzene		100.3	150.5									
C <sub>9</sub> H <sub>10</sub>	Indan		11.5	60.3				56.0					190.2
C <sub>9</sub> H <sub>10</sub> N <sub>2</sub>	2,2'-Dipyrrolylmethane	126.2											
C <sub>9</sub> H <sub>10</sub> O <sub>2</sub>	Benzyl acetate												148.5
C <sub>9</sub> H <sub>10</sub> O <sub>2</sub>	Ethyl benzoate												246.0
C <sub>9</sub> H <sub>11</sub> NO <sub>2</sub>	<i>L</i> -Phenylalanine	-466.9		-312.9				213.6				203.0	
C <sub>9</sub> H <sub>11</sub> NO <sub>3</sub>	<i>L</i> -Tyrosine	-685.1						214.0				216.4	
C <sub>9</sub> H <sub>12</sub>	Propylbenzene		-38.3	7.9					287.8				214.7
C <sub>9</sub> H <sub>12</sub>	Cumene		-41.1	4.0									210.7
C <sub>9</sub> H <sub>12</sub>	<i>o</i> -Ethyltoluene		-46.4	1.3									
C <sub>9</sub> H <sub>12</sub>	<i>m</i> -Ethyltoluene		-48.7	-1.8									
C <sub>9</sub> H <sub>12</sub>	<i>p</i> -Ethyltoluene		-49.8	-3.2									
C <sub>9</sub> H <sub>12</sub>	1,2,3-Trimethylbenzene		-58.5	-9.5				267.9					216.4
C <sub>9</sub> H <sub>12</sub>	1,2,4-Trimethylbenzene		-61.8	-13.8									215.0
C <sub>9</sub> H <sub>12</sub>	Mesitylene		-63.4	-15.9									209.3
C <sub>9</sub> H <sub>12</sub> O	2-Isopropylphenol		-233.7	-182.2									
C <sub>9</sub> H <sub>12</sub> O	3-Isopropylphenol		-252.5	-196.0									
C <sub>9</sub> H <sub>12</sub> O	4-Isopropylphenol		-265.9	-209.4									
C <sub>9</sub> H <sub>12</sub> O <sub>2</sub>	Hydroperoxide, 1-methyl-1-phenylethyl		-148.3	-78.4									
C <sub>9</sub> H <sub>13</sub> NO <sub>2</sub>	Ethyl 3,5-dimethylpyrrole-2-carboxylate	-474.5											
C <sub>9</sub> H <sub>13</sub> NO <sub>2</sub>	Ethyl 2,4-dimethylpyrrole-3-carboxylate	-463.2											
C <sub>9</sub> H <sub>13</sub> NO <sub>2</sub>	Ethyl 2,5-dimethylpyrrole-3-carboxylate	-478.7											
C <sub>9</sub> H <sub>13</sub> NO <sub>2</sub>	Ethyl 4,5-dimethylpyrrole-3-carboxylate	-470.3											
C <sub>9</sub> H <sub>14</sub> O	Isophorone												253.5
C <sub>9</sub> H <sub>14</sub> O <sub>6</sub>	Triacetin		-1330.8	-1245.0				458.3					384.7
C <sub>9</sub> H <sub>15</sub> N	3-Ethyl-2,4,5-trimethylpyrrole	-89.2											
C <sub>9</sub> H <sub>16</sub> O <sub>4</sub>	Nonanedioic acid	-1054.3											
C <sub>9</sub> H <sub>17</sub> NO	2,2,6,6-Tetramethyl-4-piperidinone	-334.2		-273.4									
C <sub>9</sub> H <sub>18</sub>	Propylcyclohexane		-237.4	-192.3				311.9					242.0

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>9</sub> H <sub>18</sub>	1,3,5-Trimethylcyclohexane (1',3',5')			-212.1									
C <sub>9</sub> H <sub>18</sub> O	2-Nonanone		-397.2	-340.7									
C <sub>9</sub> H <sub>18</sub> O	5-Nonanone		-398.2	-344.9				401.4					303.6
C <sub>9</sub> H <sub>18</sub> O	2,6-Dimethyl-4-heptanone		-408.5	-357.6									297.3
C <sub>9</sub> H <sub>18</sub> O <sub>2</sub>	Nonanoic acid		-659.7	-577.3									362.4
C <sub>9</sub> H <sub>18</sub> O <sub>2</sub>	Butyl pentanoate	-613.3		-560.2									
C <sub>9</sub> H <sub>18</sub> O <sub>2</sub>	sec-Butyl pentanoate		-624.2	-573.2									
C <sub>9</sub> H <sub>18</sub> O <sub>2</sub>	Isobutyl pentanoate		-620.0	-568.6									
C <sub>9</sub> H <sub>18</sub> O <sub>2</sub>	Methyl octanoate		-590.3	-533.9									
C <sub>9</sub> H <sub>19</sub> N	N-Butylpiperidine		-171.8										
C <sub>9</sub> H <sub>19</sub> N	2,2,6,6-Tetramethylpiperidine		-206.9	-159.9									
C <sub>9</sub> H <sub>20</sub>	Nonane		-274.7	-228.2									284.4
C <sub>9</sub> H <sub>20</sub>	2,2-Dimethylheptane		-288.1										
C <sub>9</sub> H <sub>20</sub>	2,2,3-Trimethylhexane		-282.7										
C <sub>9</sub> H <sub>20</sub>	2,2,4-Trimethylhexane		-282.8										
C <sub>9</sub> H <sub>20</sub>	2,2,5-Trimethylhexane		-293.3										
C <sub>9</sub> H <sub>20</sub>	2,3,3-Trimethylhexane		-281.1										
C <sub>9</sub> H <sub>20</sub>	2,3,5-Trimethylhexane		-284.0	-242.6									
C <sub>9</sub> H <sub>20</sub>	2,4,4-Trimethylhexane		-280.2										
C <sub>9</sub> H <sub>20</sub>	3,3,4-Trimethylhexane		-277.5										
C <sub>9</sub> H <sub>20</sub>	3,3-Diethylpentane		-275.4	-233.3									278.2
C <sub>9</sub> H <sub>20</sub>	3-Ethyl-2,2-dimethylpentane		-272.7										
C <sub>9</sub> H <sub>20</sub>	3-Ethyl-2,4-dimethylpentane		-269.7										
C <sub>9</sub> H <sub>20</sub>	2,2,3,3-Tetramethylpentane		-278.3	-237.1									271.5
C <sub>9</sub> H <sub>20</sub>	2,2,3,4-Tetramethylpentane		-277.7	-236.9									
C <sub>9</sub> H <sub>20</sub>	2,2,4,4-Tetramethylpentane		-280.0	-241.6									266.3
C <sub>9</sub> H <sub>20</sub>	2,3,3,4-Tetramethylpentane		-277.9	-236.1									
C <sub>9</sub> H <sub>20</sub> N <sub>2</sub> O	Tetraethylurea	-403.0											
C <sub>9</sub> H <sub>20</sub> O	1-Nonanol		-453.4	-376.5									
C <sub>9</sub> H <sub>20</sub> O <sub>2</sub>	1,9-Nonanediol	-657.6											
C <sub>9</sub> H <sub>21</sub> N	Tripropylamine		-207.1	-161.0									
C <sub>10</sub> H <sub>6</sub> N <sub>2</sub> O <sub>4</sub>	1,5-Dinitronaphthalene	29.8											
C <sub>10</sub> H <sub>6</sub> N <sub>2</sub> O <sub>4</sub>	1,8-Dinitronaphthalene	39.7											
C <sub>10</sub> H <sub>7</sub> Cl	1-Chloronaphthalene		54.6	119.8									212.6
C <sub>10</sub> H <sub>7</sub> Cl	2-Chloronaphthalene	55.4		137.4									
C <sub>10</sub> H <sub>7</sub> I	1-Iodonaphthalene		161.5	233.8									
C <sub>10</sub> H <sub>7</sub> I	2-Iodonaphthalene	144.3		235.1									
C <sub>10</sub> H <sub>7</sub> NO <sub>2</sub>	1-Nitronaphthalene	42.6		111.2									
C <sub>10</sub> H <sub>8</sub>	Naphthalene	78.5		150.6	201.6		224.1	167.4		333.1		165.7	131.9
C <sub>10</sub> H <sub>8</sub>	Azulene	212.3		289.1									
C <sub>10</sub> H <sub>8</sub> O	1-Naphthol	-121.5		-30.4								166.9	
C <sub>10</sub> H <sub>8</sub> O	2-Naphthol		-124.1	-29.9									
C <sub>10</sub> H <sub>9</sub> N	1-Naphthalenamine	67.8		132.8									

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>10</sub> H <sub>9</sub> N	2-Naphthalenamine	60.2		134.3									
C <sub>10</sub> H <sub>10</sub>	1,2-Dihydronaphthalene		71.6										
C <sub>10</sub> H <sub>10</sub>	1,4-Dihydronaphthalene		84.2										
C <sub>10</sub> H <sub>10</sub> O	1-Tetralone	-209.6											
C <sub>10</sub> H <sub>10</sub> O <sub>4</sub>	Dimethyl phthalate											303.1	
C <sub>10</sub> H <sub>10</sub> O <sub>4</sub>	Dimethyl isophthalate	-730.9											
C <sub>10</sub> H <sub>10</sub> O <sub>4</sub>	Dimethyl terephthalate	-732.6										261.1	
C <sub>10</sub> H <sub>12</sub>	1,2,3,4-Tetrahydronaphthalene		-29.2	26.0									217.5
C <sub>10</sub> H <sub>14</sub>	Butylbenzene		-63.2	-11.8				321.2					243.4
C <sub>10</sub> H <sub>14</sub>	<i>sec</i> -Butylbenzene		-66.4	-18.4									
C <sub>10</sub> H <sub>14</sub>	<i>tert</i> -Butylbenzene		-70.7	-23.0									
C <sub>10</sub> H <sub>14</sub>	Isobutylbenzene		-69.8	-21.9									
C <sub>10</sub> H <sub>14</sub>	<i>o</i> -Cymene		-73.3										
C <sub>10</sub> H <sub>14</sub>	<i>m</i> -Cymene		-78.6										
C <sub>10</sub> H <sub>14</sub>	<i>p</i> -Cymene		-78.0										236.4
C <sub>10</sub> H <sub>14</sub>	<i>o</i> -Diethylbenzene		-68.5										
C <sub>10</sub> H <sub>14</sub>	<i>m</i> -Diethylbenzene		-73.5										
C <sub>10</sub> H <sub>14</sub>	<i>p</i> -Diethylbenzene		-72.8										
C <sub>10</sub> H <sub>14</sub>	3-Ethyl- <i>o</i> -xylene		-80.5										
C <sub>10</sub> H <sub>14</sub>	4-Ethyl-1,2-dimethylbenzene		-86.0										
C <sub>10</sub> H <sub>14</sub>	2-Ethyl-1,3-dimethylbenzene		-80.1										
C <sub>10</sub> H <sub>14</sub>	2-Ethyl-1,4-dimethylbenzene		-84.8										
C <sub>10</sub> H <sub>14</sub>	1-Ethyl-2,4-dimethylbenzene		-84.1										
C <sub>10</sub> H <sub>14</sub>	1-Ethyl-3,5-dimethylbenzene		-87.8										
C <sub>10</sub> H <sub>14</sub>	1,2,4,5-Tetramethylbenzene	-119.9						245.6				215.1	
C <sub>10</sub> H <sub>14</sub> O	Thymol	-309.7		-218.5									
C <sub>10</sub> H <sub>16</sub>	<i>cis</i> , <i>cis</i> -2,6-Dimethyl-2,4,6-octatriene		-24.0										
C <sub>10</sub> H <sub>16</sub>	Dipentene		-50.8	-2.6									249.4
C <sub>10</sub> H <sub>16</sub>	<i>D</i> -Limonene		-54.5										249.0
C <sub>10</sub> H <sub>16</sub>	$\beta$ -Myrcene		14.5										
C <sub>10</sub> H <sub>16</sub>	$\alpha$ -Pinene		-16.4	28.3									
C <sub>10</sub> H <sub>16</sub>	$\beta$ -Pinene		-7.7	38.7									
C <sub>10</sub> H <sub>16</sub>	$\alpha$ -Terpinene			-20.6									
C <sub>10</sub> H <sub>16</sub> N <sub>2</sub> O <sub>8</sub>	Glycine, <i>N,N'</i> -1,2-ethanediylylbis[ <i>N</i> -(carboxymethyl)-	-1759.5											
C <sub>10</sub> H <sub>16</sub> O	Camphor	-319.4		-267.5								271.2	
C <sub>10</sub> H <sub>18</sub>	1,1'-Bicyclopentyl		-178.9										
C <sub>10</sub> H <sub>18</sub>	<i>cis</i> -Decahydronaphthalene		-219.4	-169.2					265.0				232.0
C <sub>10</sub> H <sub>18</sub>	<i>trans</i> -Decahydronaphthalene		-230.6	-182.1					264.9				228.5
C <sub>10</sub> H <sub>18</sub> O <sub>4</sub>	Sebacic acid	-1082.6		-921.9									
C <sub>10</sub> H <sub>19</sub> N	Decanenitrile		-158.4	-91.5									
C <sub>10</sub> H <sub>20</sub>	1-Decene		-173.8	-123.3						425.0			300.8
C <sub>10</sub> H <sub>20</sub>	<i>cis</i> -1,2-Di- <i>tert</i> -butylethylene		-163.6										

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
$\text{C}_{10}\text{H}_{20}$	Butylcyclohexane		-263.1	-213.7				345.0					271.0
$\text{C}_{10}\text{H}_{20}\text{O}_2$	Decanoic acid	-713.7	-684.3	-594.9									
$\text{C}_{10}\text{H}_{20}\text{O}_2$	Methyl nonanoate		-616.2	-554.2									
$\text{C}_{10}\text{H}_{21}\text{NO}_2$	1-Nitrodecane		-351.5										
$\text{C}_{10}\text{H}_{22}$	Decane		-300.9	-249.5									314.4
$\text{C}_{10}\text{H}_{22}$	2-Methylnonane		-309.8	-260.2				420.1					313.3
$\text{C}_{10}\text{H}_{22}$	5-Methylnonane		-307.9	-258.6				423.8					314.4
$\text{C}_{10}\text{H}_{22}\text{O}$	1-Decanol		-478.1	-396.6									370.6
$\text{C}_{10}\text{H}_{22}\text{O}$	Dipentyl ether												250.0
$\text{C}_{10}\text{H}_{22}\text{O}$	Diisopentyl ether												379.0
$\text{C}_{10}\text{H}_{22}\text{O}_2$	1,10-Decanediol	-678.9											
$\text{C}_{10}\text{H}_{22}\text{O}_2$	Ethylene glycol dibutyl ether												350.0
$\text{C}_{10}\text{H}_{22}\text{S}$	1-Decanethiol	-309.9	-276.5	-211.5				476.1					350.4
$\text{C}_{10}\text{H}_{22}\text{S}$	Dipentyl sulfide		-266.4	-204.9									
$\text{C}_{10}\text{H}_{22}\text{S}$	Diisopentylsulfide		-281.8	-221.5									
$\text{C}_{11}\text{H}_8\text{O}_2$	1-Naphthalenecarboxylic acid	-333.5		-223.1									
$\text{C}_{11}\text{H}_8\text{O}_2$	2-Naphthoic acid	-346.1		-232.5									
$\text{C}_{11}\text{H}_{10}$	1-Methylnaphthalene		56.3					254.8					224.4
$\text{C}_{11}\text{H}_{10}$	2-Methylnaphthalene	44.9		106.7			220.0				196.0		
$\text{C}_{11}\text{H}_{12}\text{N}_2\text{O}_2$	<i>L</i> -Tryptophan	-415.3					251.0				238.1		
$\text{C}_{11}\text{H}_{14}$	1,1-Dimethylindan		-53.6	-1.6									
$\text{C}_{11}\text{H}_{16}$	Pentamethylbenzene	-144.6		-67.2									
$\text{C}_{11}\text{H}_{20}$	Spiro[5.5]undecane		-244.5	-188.3									
$\text{C}_{11}\text{H}_{22}$	1-Undecene												344.9
$\text{C}_{11}\text{H}_{22}\text{O}_2$	Methyl decanoate		-640.5	-573.8									
$\text{C}_{11}\text{H}_{24}$	Undecane		-327.2	-270.8									344.9
$\text{C}_{11}\text{H}_{24}\text{O}$	1-Undecanol		-504.8										
$\text{C}_{12}\text{F}_{27}\text{N}$	Trinonafluorobutylamine												418.4
$\text{C}_{12}\text{H}_8$	Acenaphthylene	186.7		259.7							166.4		
$\text{C}_{12}\text{H}_8\text{N}_2$	Phenazine	237.0		328.8									
$\text{C}_{12}\text{H}_8\text{O}$	Dibenzofuran	-5.3		83.4									
$\text{C}_{12}\text{H}_8\text{S}$	Dibenzothiophene	120.0		205.1									
$\text{C}_{12}\text{H}_8\text{S}_2$	Thianthrene	182.0		286.0									
$\text{C}_{12}\text{H}_9\text{N}$	Carbazole	101.7		200.7									
$\text{C}_{12}\text{H}_{10}$	Acenaphthene	70.3		156.0			188.9				190.4		
$\text{C}_{12}\text{H}_{10}$	Biphenyl	99.4		181.4			209.4				198.4		
$\text{C}_{12}\text{H}_{10}\text{N}_2\text{O}$	<i>trans</i> -Azoxybenzene	243.4		342.0									
$\text{C}_{12}\text{H}_{10}\text{N}_2\text{O}$	<i>N</i> -Nitrosodiphenylamine	227.2											
$\text{C}_{12}\text{H}_{10}\text{O}$	Diphenyl ether	-32.1	-14.9	52.0			233.9				216.6		
$\text{C}_{12}\text{H}_{10}\text{O}_2$	1-Naphthaleneacetic acid	-359.2											
$\text{C}_{12}\text{H}_{10}\text{O}_2$	2-Naphthaleneacetic acid	-371.9											
$\text{C}_{12}\text{H}_{11}\text{N}$	2-Aminobiphenyl			93.8			184.4						
$\text{C}_{12}\text{H}_{11}\text{N}$	<i>p</i> -Biphenylamine	81.0											
$\text{C}_{12}\text{H}_{11}\text{N}$	Diphenylamine	130.2		219.3									
$\text{C}_{12}\text{H}_{12}\text{N}_2$	<i>p</i> -Benzidine	70.7											

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>12</sub> H <sub>14</sub> O <sub>4</sub>	Diethyl phthalate		-776.6	-688.4				425.1					366.1
C <sub>12</sub> H <sub>16</sub>	Cyclohexylbenzene		-76.6	-16.7									
C <sub>12</sub> H <sub>17</sub> NO <sub>4</sub>	Diethyl 3,5-dimethyl- pyrrole-2,4-dicarboxylate	-916.7											
C <sub>12</sub> H <sub>18</sub>	3,9-Dodecadiyne		197.8										
C <sub>12</sub> H <sub>18</sub>	5,7-Dodecadiyne		181.5										
C <sub>12</sub> H <sub>18</sub>	Hexamethylbenzene	-162.4		-77.4			306.3				245.6		
C <sub>12</sub> H <sub>22</sub>	Cyclohexylcyclohexane		-273.7	-215.7									
C <sub>12</sub> H <sub>22</sub> O <sub>4</sub>	Dodecanedioic acid	-1130.0		-976.9									
C <sub>12</sub> H <sub>22</sub> O <sub>11</sub>	Sucrose	-2226.1											
C <sub>12</sub> H <sub>22</sub> O <sub>11</sub>	$\beta$ -Lactose	-2236.7											
C <sub>12</sub> H <sub>24</sub>	1-Dodecene		-226.2	-165.4						484.8			360.7
C <sub>12</sub> H <sub>24</sub> O <sub>2</sub>	Dodecanoic acid	-774.6	-737.9	-642.0							404.3		
C <sub>12</sub> H <sub>24</sub> O <sub>2</sub>	Methyl undecanoate		-665.2	-593.8									
C <sub>12</sub> H <sub>24</sub> O <sub>12</sub>	$\alpha$ -Lactose monohydrate	-2484.1											
C <sub>12</sub> H <sub>25</sub> Br	1-Bromododecane		-344.7	-269.9									
C <sub>12</sub> H <sub>25</sub> Cl	1-Chlorododecane		-392.3	-321.1									
C <sub>12</sub> H <sub>26</sub>	Dodecane		-350.9	-289.4									375.8
C <sub>12</sub> H <sub>26</sub> O	1-Dodecanol		-528.5	-436.6									438.1
C <sub>12</sub> H <sub>26</sub> O <sub>3</sub>	Diethylene glycol dibutyl ether												452.0
C <sub>12</sub> H <sub>27</sub> N	Tributylamine		-281.6										
C <sub>13</sub> H <sub>8</sub> O <sub>2</sub>	Xanthone	-191.5											
C <sub>13</sub> H <sub>9</sub> N	Acridine	179.4		273.9									
C <sub>13</sub> H <sub>9</sub> N	Phenanthridine	141.9		240.5									
C <sub>13</sub> H <sub>9</sub> N	Benzo[f]quinoline	150.6		233.7									
C <sub>13</sub> H <sub>10</sub> N <sub>2</sub>	9-Acridinamine	159.2											
C <sub>13</sub> H <sub>10</sub> O	Benzophenone	-34.5		54.9							224.8		
C <sub>13</sub> H <sub>11</sub> N	9-Methylcarbazole	105.5		201.0									
C <sub>13</sub> H <sub>12</sub>	Diphenylmethane	71.5	89.7	139.0			239.3						
C <sub>13</sub> H <sub>24</sub> O <sub>4</sub>	Tridecanedioic acid	-1148.3											
C <sub>13</sub> H <sub>26</sub>	1-Tridecene												391.8
C <sub>13</sub> H <sub>26</sub> O <sub>2</sub>	Methyl dodecanoate		-693.0	-614.9									
C <sub>13</sub> H <sub>28</sub>	Tridecane												406.7
C <sub>13</sub> H <sub>28</sub> O	1-Tridecanol	-599.4											
C <sub>14</sub> H <sub>8</sub> O <sub>2</sub>	9,10-Anthracenedione	-188.5		-75.7									
C <sub>14</sub> H <sub>8</sub> O <sub>2</sub>	9,10-Phenanthrenedione	-154.7		-46.6									
C <sub>14</sub> H <sub>8</sub> O <sub>4</sub>	1,4-Dihydroxy-9,10- anthracenedione	-595.8		-471.7									
C <sub>14</sub> H <sub>10</sub>	Anthracene	129.2		230.9				207.5			210.5		
C <sub>14</sub> H <sub>10</sub>	Phenanthrene	116.2		207.5				215.1			220.6		
C <sub>14</sub> H <sub>10</sub>	Diphenylacetylene	312.4									225.9		
C <sub>14</sub> H <sub>10</sub> O <sub>2</sub>	Benzil	-153.9		-55.5									
C <sub>14</sub> H <sub>12</sub>	<i>cis</i> -Stilbene		183.3	252.3									
C <sub>14</sub> H <sub>12</sub>	<i>trans</i> -Stilbene	136.9		236.1									

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		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
C <sub>14</sub> H <sub>14</sub>	1,1-Diphenylethane		48.7										
C <sub>14</sub> H <sub>14</sub>	1,2-Diphenylethane	51.5		142.9									
C <sub>14</sub> H <sub>23</sub> N <sub>3</sub> O <sub>10</sub>	Glycine, <i>N,N</i> -bis[2-(bis(carboxymethyl)amino)ethyl]	-2225.2											
C <sub>14</sub> H <sub>27</sub> N	Tetradecanenitrile		-260.2	-174.9									
C <sub>14</sub> H <sub>28</sub> O <sub>2</sub>	Tetradecanoic acid	-833.5	-788.8	-693.7							432.0		
C <sub>14</sub> H <sub>28</sub> O <sub>2</sub>	Methyl tridecanoate		-717.9	-635.3									
C <sub>14</sub> H <sub>30</sub> O	1-Tetradecanol	-629.6	-580.6								388.0		
C <sub>15</sub> H <sub>16</sub> O <sub>2</sub>	2,2-Bis(4-hydroxyphenyl)propane	-368.6											
C <sub>15</sub> H <sub>30</sub>	Decylcyclopentane		-367.3										
C <sub>15</sub> H <sub>30</sub> O <sub>2</sub>	Pentadecanoic acid	-861.7	-811.7	-699.0							443.3		
C <sub>15</sub> H <sub>30</sub> O <sub>2</sub>	Methyl tetradecanoate		-743.9	-656.9									
C <sub>15</sub> H <sub>32</sub> O	1-Pentadecanol	-658.2											
C <sub>16</sub> H <sub>10</sub>	Fluoranthene	189.9		289.0				230.6			230.2		
C <sub>16</sub> H <sub>10</sub>	Pyrene	125.5		225.7				224.9			229.7		
C <sub>16</sub> H <sub>22</sub> O <sub>4</sub>	Dibutyl phthalate		-842.6	-750.9									
C <sub>16</sub> H <sub>22</sub> O <sub>11</sub>	$\alpha$ - <i>D</i> -Glucose pentaacetate	-2249.4											
C <sub>16</sub> H <sub>22</sub> O <sub>11</sub>	$\beta$ - <i>D</i> -Glucose pentaacetate	-2232.6											
C <sub>16</sub> H <sub>26</sub>	Decylbenzene		-218.3	-138.6									
C <sub>16</sub> H <sub>32</sub>	1-Hexadecene		-328.7	-248.4						587.9		488.9	
C <sub>16</sub> H <sub>32</sub> O <sub>2</sub>	Hexadecanoic acid	-891.5	-838.1	-737.1				452.4			460.7		
C <sub>16</sub> H <sub>32</sub> O <sub>2</sub>	Methyl pentadecanoate		-771.0	-680.0									
C <sub>16</sub> H <sub>33</sub> Br	1-Bromohexadecane		-444.5	-350.2									
C <sub>16</sub> H <sub>34</sub>	Hexadecane		-456.1	-374.8								501.6	
C <sub>16</sub> H <sub>34</sub> O	1-Hexadecanol	-686.5		-517.0							422.0		
C <sub>16</sub> H <sub>36</sub> I <sub>N</sub>	Tetrabutyl ammonium iodide	-498.6											
C <sub>17</sub> H <sub>34</sub> O <sub>2</sub>	Margaric acid	-924.4	-865.6								475.7		
C <sub>18</sub> H <sub>12</sub>	Benz[a]anthracene	170.8		293.0									
C <sub>18</sub> H <sub>12</sub>	Chrysene	145.3		269.8									
C <sub>18</sub> H <sub>15</sub> N	Triphenylamine	234.7		326.8									
C <sub>18</sub> H <sub>34</sub> O <sub>2</sub>	Oleic acid											577.0	
C <sub>18</sub> H <sub>34</sub> O <sub>4</sub>	Dibutyl sebacate											619.0	
C <sub>18</sub> H <sub>36</sub> O <sub>2</sub>	Stearic acid	-947.7	-884.7	-781.2							501.5		
C <sub>18</sub> H <sub>37</sub> Cl	1-Chlorooctadecane		-544.1	-446.0									
C <sub>18</sub> H <sub>38</sub>	Octadecane	-567.4		-414.6				480.2			485.6		
C <sub>18</sub> H <sub>39</sub> N	Trihexylamine		-433.0										
C <sub>19</sub> H <sub>16</sub> O	Triphenylmethanol	-2.5											
C <sub>19</sub> H <sub>36</sub> O <sub>2</sub>	Methyl oleate		-734.5	-649.9									
C <sub>19</sub> H <sub>36</sub> O <sub>2</sub>	Methyl <i>trans</i> -9-octadecenoate		-737.0										
C <sub>20</sub> H <sub>12</sub>	Perylene	182.8						264.6			274.9		
C <sub>20</sub> H <sub>14</sub> O <sub>4</sub>	1,2-Benzenedicarboxylic acid, diphenyl ester	-489.2											
C <sub>20</sub> H <sub>38</sub> O <sub>2</sub>	Ethyl <i>cis</i> -9-octadecenoate		-775.8										

Molecular formula	Name	$\Delta_f H^\circ/\text{kJ mol}^{-1}$			$\Delta_f G^\circ/\text{kJ mol}^{-1}$			$S^\circ/\text{J mol}^{-1} \text{K}^{-1}$			$C_p/\text{J mol}^{-1} \text{K}^{-1}$		
		Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas	Crys.	Liq.	Gas
$\text{C}_{20}\text{H}_{38}\text{O}_2$	Ethyl <i>trans</i> -9-octa- decenoate		-773.3										
$\text{C}_{20}\text{H}_{40}\text{O}_2$	Arachidic acid	-1011.9	-940.0	-812.4							545.1		
$\text{C}_{22}\text{H}_{42}\text{O}_2$	Brassicidic acid	-960.7											
$\text{C}_{22}\text{H}_{42}\text{O}_2$	Butyl oleate		-816.9										
$\text{C}_{22}\text{H}_{44}\text{O}_2$	Butyl stearate												
$\text{C}_{24}\text{H}_{38}\text{O}_4$	Bis(2-ethylhexyl) phthalate											704.7	
$\text{C}_{24}\text{H}_{51}\text{N}$	Trioctylamine		-585.0										
$\text{C}_{26}\text{H}_{18}$	9,10-Diphenylanthracene	308.7		465.6									
$\text{C}_{26}\text{H}_{54}$	5-Butyldocosane		-713.5	-587.6									
$\text{C}_{26}\text{H}_{54}$	11-Butyldocosane		-716.0	-593.4									
$\text{C}_{28}\text{H}_{18}$	9,9'-Bianthracene	326.2		454.3									
$\text{C}_{31}\text{H}_{64}$	11-Decylheneicosane		-848.0	-705.8									
$\text{C}_{32}\text{H}_{66}$	Dotriacontane		-968.3	-697.2									
$\text{C}_{60}$	Fullerene- $\text{C}_{60}$	2327.0		2502.0	2302.0		2442.0	426.0		544.0	520.0		512.0
$\text{C}_{70}$	Fullerene- $\text{C}_{70}$	2555.0		2755.0	2537.0		2692.0	464.0		614.0	650.0		585.0