

Thermochemistry Charts

Specific Heats for Some Common Substance

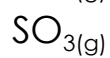
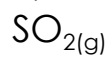
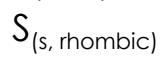
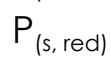
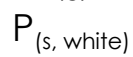
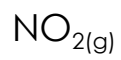
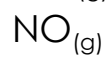
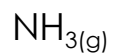
Substance	J/g°C
Grain Alcohol	2.4
Ice	2.1
Liquid Water	4.184
Steam	1.7
Chloroform	0.96
Aluminum	0.90
Iron	0.46
Silver	0.24
Mercury	0.14

Heats of Physical Change

Substance	ΔH_{fus} (kJ/mol)	ΔH_{vap} (kJ/mol)
Ammonia (NH ₃)	5.65	23.4
Ethanol (C ₂ H ₅ OH)	4.60	43.5
Hydrogen	0.12	0.90
Methanol (CH ₃ OH)	3.16	35.3
Oxygen	0.44	6.82
Water	6.01	40.7

Standard Heats of Formation (ΔH_f°) and Standard States

Substance	CaO _(s)	-1676.0	-822.1
Al ₂ O _{3(s)}	Fe ₂ O _{3(s)}	30.91	-241.8
Br _{2(g)}	H ₂ O _(g)	1.9	-285.8
C _(s, diamond)	H ₂ O _(l)	0.0	
C _(s, graphite)		-74.86	
CH _{4(g)}		-110.5	
CO _(g)		-393.5	
CO _{2(g)}		-1207.0	
CaCO _{3(s)}		-635.1	
	ΔH_f° (kJ/mol)		Substance
			H ₂ O _{2(l)}
			I _{2(g)}



ΔH_f° (kJ/mol)

-187.8

62.4

-46.19

90.37

33.85

-411.2

142.0

0.0

-18.4

0.0

0.30

-296.8

-395.7