

TABLE XII. COHESIVE ENERGY AND HEAT OF SUBLIMATION AT 298°K

Element	ΔH_0° (kcal/g-at)	ΔH_s^{298} (kcal/g-at)	Ref.
3 Li	38.20	38.58 ± 0.40	1
4 Be	76.9	77.9	2, 3
5 B	130.8	132.0 ± 2.3	4-9
6 C	169.6	170.9	2, 3, 10
11 Na	26.02	25.92 ± 0.15	1
12 Mg	35.3	35.6	2, 3
13 Al	76.9	77.5 ± 1.5	2, 3
14 Si	107.4	108.4 ± 3.0	11
15 P	75.0 ^a	75.3	10
16 S	65.9	66.4	2, 10
19 K	21.69	21.48 ± 0.06	1, 12
20 Ca	42.1	42.2	2, 3
21 Sc	80.06	80.45 ± 0.35	13, 14
22 Ti	112.2	112.7	2, 3, 10
23 V	122.0	122.8 ± 5.0	2, 3
24 Cr	94.5	95.0 ± 1.0	2, 3, 15
25 Mn	66.9	67.2	2, 3
26 Fe	99.4	100.0 ± 1.0	2, 3, 15
27 Co	101.7	102.1 ± 0.9	2, 3, 16
28 Ni	102.3	102.8	2, 3
29 Cu	80.8	81.1	2, 3, 10, 17
30 Zn	31.0	31.1	3
31 Ga	64.7	64.9	3, 10
32 Ge	88.8	89.5	10
33 As	28.7	29.0	10
34 Se	49.2	49.4	10
37 Rb	20.2	19.9 ± 0.5	2, 3, 10, 18
38 Sr	39.3 ^a	39.2	10
39 Y	97.6	97.8	14
40 Zr	145.7	146.0 ± 1.0	2, 3
41 Nb	174.3	175.0 ± 2.5	3, 19
42 Mo	157.1	157.5	2, 3
43 Tc	(152) ^b	(152) ^{b,c}	—
44 Ru	154.0 ^a	154.2 ± 0.7	7, 20
45 Rh	133.0 ^a	133.2 ± 1.0	21-24
46 Pd	89.9	90.1 ± 0.9	24, 25
47 Ag	68.3	68.4	2, 3
48 Cd	26.8	26.8	2, 3
49 In	57.4	57.3 ± 0.3	3, 26
50 Sn(w)	72.0	72.0	2, 3, 10
51 Sb	62.3	62.6 ^d	2, 3, 17
52 Te	46.6	46.6 ± 2.0	2, 3, 10
55 Cs	19.22	18.84 ± 0.29	2, 3, 18

TABLE XII. COHESIVE ENERGY AND HEAT OF SUBLIMATION AT 298°K—Continued

Element	ΔH_0° (kcal/g-at)	ΔH_s^{298} (kcal/g-at)	Ref.
56 Ba	42.8	42.5 ± 0.5	2, 3
57 La	101.9	101.8 ± 2.2	14, 27
58 Ce(γ)	97.9 ^a	97.6	27
59 Pr	85.8 ^a	85.5 ± 1.2	28-30
60 Nd	75.9	75.6 ± 0.6	29, 31, 32
61 Pm	(64) ^b	(64) ^{b,c}	—
62 Sm	50.2 ^a	49.9	33
63 Eu	42.9 ^a	42.6 ± 0.5	34, 35
64 Gd	82.7	82.4 ± 1.2	31, 35
65 Tb	89.9 ^a	89.6 ± 2.2	31, 36
66 Dy	66.9 ^a	66.6 ± 4.8	31, 33
67 Ho	70.5 ^a	70.2 ± 0.6	31, 37
68 Er	70.7 ^a	70.4 ± 5.0	31, 35
69 Tm	58.3 ^a	58.0 ± 0.4	33, 38
70 Yb	40.3 ^a	40.0	33
71 Lu	98.8	98.8 ± 4.0	31, 36
72 Hf	145.5	145.5 ± 3.0	39
73 Ta	186.7	186.8	2, 3
74 W	199.7	200.0 ± 1.0	2, 3
75 Re	186.2	186.4 ± 0.6	3, 10
76 Os	187.2 ^a	187.4 ± 0.9	20
77 Ir	158.9 ^a	159.1 ± 0.8	7, 21, 22
78 Pt	134.8	135.0 ± 0.2	21, 24
79 Au	87.6	87.6 ± 0.7	2, 3, 40
80 Hg	15.41	14.66 ± 0.01	1
81 Tl	43.39	43.24 ± 0.24	2, 3, 26, 41, 42
82 Pb	47.0	46.8	2, 3, 43
83 Bi	50.01	49.95 ± 0.27	44-46
84 Po	34.6 ^a	34.5	3, 10
87 Fr	(18.6) ^b	(18.1) ^{b,c}	—
88 Ra	(42) ^b	(42) ^{b,c}	—
89 Ac	(104) ^b	(104) ^{b,c}	—
90 Th	136.7	136.6	2, 10
91 Pa	(132) ^b	(132) ^{b,c}	—
92 U	125	125 ± 3	2
93 Np	(113) ^b	(113) ^{b,c}	—
94 Pu	91.8	91.8 ^c	47

^a Estimated the value for ($\Delta H_0^\circ - \Delta H_s^{298}$) to obtain ΔH_0° from given ΔH_s^{298} .

^b Estimated value; see text for further discussion.

^c Estimated the value for ($\Delta H_0^\circ - \Delta H_s^{298}$) to obtain ΔH_s^{298} from given ΔH_0° .

^d The data given by Rosenblatt and Birchenall¹⁷ corresponded to the process $4 \text{ Sb}(s) = \text{Sb}_4(g)$. The reviewer used 13.7 kcal for the dissociation of $\text{Sb}_4(g)$ into $\text{Sb}(g)$ to determine the heat of sublimation given here.