

TABLE XV. DEBYE TEMPERATURES OBTAINED FROM SPECIFIC HEAT DATA (θ^S) AND FROM THE LINDEMANN EQUATION (θ^M)^{a,b,c}

Element	θ^S ^a (°K)	Ref.	θ_{298}^S ^b (°K)	Ref.	θ^M ^c (°K)
3 Li	352 ±17	1, 2	448	—	476
4 Be	1160	3	1031	—	1062
5 B	1315 ^d	4	1362	—	1286
6 C(g)	402 ±11	5, 6	1550 ^e	—	1471
6 C(d)	2240 ±5	7	1874	—	—
11 Na	157 ±1	1, 8-11	155 ±5	96, 97	193
12 Mg	396 ±54	12-14	330	—	354
13 Al	423 ±5	15, 16	390	—	378
14 Si	647 ±11	17, 18	692	—	468
15 P(w)	(193) ^f	—	(576) ^f	—	184
15 P(r)	(325) ^f	—	(800) ^f	—	310
16 S(r)	250 ^g	19	527	19	202
16 S(m)	(200) ^f	—	—	—	191
19 K	89.4 ±0.5	1, 11	100	96, 97	114
20 Ca	234 ±5	20, 21	230	96, 97	246
21 Sc	470 ±80	22	(476) ^f	—	356
22 Ti	426 ±5 ^e	23-25	380	97	385
23 V	326 ±54	23, 26-28	390	97	446
24 Cr	598 ±32 ^e	23, 29, 30	424	—	460
25 Mn	418 ±32	23, 31, 32	363	—	374
26 Fe	457 ±12	33-35	373	—	410
27 Co	452 ±17	35, 36, 37	386	—	402
28 Ni	427 ±14	29, 38	345	—	401
29 Cu	342 ±2 ^e	21, 25, 39-43	310	—	333
30 Zn	316 ±20	44-48	237 ±3	96, 97	216
31 Ga	317	46, 49	240	97	127
32 Ge	378 ±22	18, 50, 51	403	—	237
33 As	(236) ^f	—	275	98	225
34 Se	151.7 ±0.4	52	—	—	136
35 Rb	54 ±4	53, 54	59	99	69.1
38 Sr	147 ±1	20	148	99	158
39 Y	268 ±32	22, 55	214	100	229
40 Zr	289 ±24	12, 23, 25	250	97	277
41 Nb	241 ±13	55-57	260	55	340
42 Mo	459 ±11	23, 55, 58-60	377	—	360
43 Tc	(351) ^f	—	(422) ^f	—	335
44 Ru	600	23	415	—	345
45 Rh	480 ±32	23, 61, 62	350	—	319
46 Pd	283 ±16	63-65	275	97	277
47 Ag	228 ±3	39, 43, 65-68	221	—	216
48 Cd	252 ±48 ^h	14, 69	221	—	135
49 In	108.8 ±0.3	70, 71	129	97	107
50 Sn(g)	236 ±24	50, 72	254	—	330

TABLE XV. DEBYE TEMPERATURES OBTAINED FROM SPECIFIC HEAT DATA (θ^S) AND FROM THE LINDEMANN EQUATION (θ^M)^{a,b,c}—Continued

Element	θ^S ^a (°K)	Ref.	θ_{298}^S ^b (°K)	Ref.	θ^M ^c (°K)
50 Sn(w)	196 ±9	71, 73-75	170	97	356
51 Sb	(150) ^f	—	200	97	143
52 Te	141 ±12	52, 76	—	—	121
55 Cs	40 ±5	53, 54	43	99	50.8
56 Ba	110.5 ±1.8	20	116	99	111
57 La	142 ±3	22	135 ±5	101	144
58 Ce(γ)	(146) ^f	—	138	102	140
59 Pr	85 ±1	77	138	103	147
60 Nd	(159) ^f	—	148 ±8	i	152
61 Pm	(158) ^f	—	—	—	(151) ^f
62 Sm	116	77	148 ±4	101, 102	153
63 Eu	(127) ^f	—	—	—	121
64 Gd	(170) ^f	—	155 ±3	101, 104	162
65 Tb	150	78	158	101	165
66 Dy	172 ±35	77, 79	158	101	167
67 Ho	114 ±7	77	161	101	169
68 Er	134 ±10	77	163	101	171
69 Tm	127 ±1	77	167	101	173
70 Yb	118	80	—	—	120
71 Lu	210	81	166	100, 101	176
72 Hf	256 ±5	23, 25	213	99	240
73 Ta	247 ±13	23, 26, 55, 82, 83	225	97	266
74 W	388 ±17 ^e	23, 59, 84	312 ±3	96, 97	291
75 Re	429 ±22	23, 85	275	99	287
76 Os	500	23	400	105	283
77 Ir	425 ±5	23, 61	228	—	255
78 Pt	234 ±1	62, 86	225 ±5	96, 97	215
79 Au	165 ±1	39, 43, 48, 62	178 ±8	96, 97	166
80 Hg	~75	76	92 ±8	96, 97	62.0
81 Tl	88 ±1	87, 88	96	97	90.1
82 Pb	102 ±5	89, 90	87 ±1	96, 97	89.5
83 Bi	119 ±2	91-93	116 ±5	96, 97	80.6
84 Po	(81) ^f	—	—	—	77.1
87 Fr	(39) ^f	—	—	—	(37.5) ^f
88 Ra	(89) ^f	—	—	—	(84.9) ^f
89 Ac	(124) ^f	—	—	—	118
90 Th	170	94	100	97	151
91 Pa	(159) ^f	—	(262) ^f	—	(152) ^f
92 U	200	94	300	—	143
93 Np	(121) ^f	—	(163) ^f	—	115
94 Pu	171	95	176	95	118