TABLE XIII. ELECTRONIC SPECIFIC HEAT CONSTANT—*Continued*

Element	γ $\left(\frac{\text{mjoules}}{\text{g-at.deg}^2}\right)$	$\gamma \times 10^4$ $\left(\frac{\text{cal}}{\text{g-at.deg}^2}\right)$	Ref.
50 Sn(g)	0	0	58
50 Sn(w)	1.78 ±0.08	4.25	48, 79–83
51 Sb	(0.1)[c]	(0.24)[c]	—
52 Te	0	0	3, 60
55 Cs	3.55 ±0.08	8.48	19, 61
56 Ba	2.7 ±0.5	6.5	20
57 La	10.1[a]	24.1	22, 84
58 Ce(α)	58[g]	138	85
58 Ce(γ)	7.24	17.3	86
59 Pr	21.9 ±2.9	52.3	87, 88
60 Nd	8.92	21.3	86
61 Pm	(10)[c]	(24)[c]	—
62 Sm	10.6 ±1.5	25.3	86, 87, 89
63 Eu	(2.8)[c]	(6.7)[c]	—
64 Gd	(10)[c]	(24)[c]	—
65 Tb	9.05	21.6	90
66 Dy	9.25 ±0.25	22.1	87, 91
67 Ho	26 ±5	62	87
68 Er	13 ±1	31	87
69 Tm	19.7 ±1.8	47.1	87, 88
70 Yb	2.90	6.93	92
71 Lu	10.22 ±0.73	24.43	88, 93
72 Hf	2.40 ±0.24	5.74	24, 25
73 Ta	5.84 ±0.31	14.0	24, 29, 62, 94, 95
74 W	1.22 ±0.15[a]	2.92	24, 66, 67, 82, 96
75 Re	2.40 ±0.14	5.74	24, 62, 97
76 Os	2.35	5.62	24
77 Ir	3.15 ±0.05	7.53	24, 69
78 Pt	6.68 ±0.27	16.0	66, 70, 98
79 Au	0.748 ±0.013[a]	1.79	44, 55, 75
80 Hg	2.2	5.3	99
81 Tl	2.83 ±0.27	6.76	100, 101
82 Pb	3.14 ±0.15	7.50	102–105
83 Bi	0.049 ±0.029	0.12	106, 107, 108
84 Po	(0.1)[c]	(0.24)[c]	—
87 Fr	(4.2)[c]	(10)[c]	—
88 Ra	(3.1)[c]	(7.4)[c]	—
89 Ac	(9.6)[c]	(23)[c]	—
90 Th	4.69	11.2	109
91 Pa	(7.0)[c]	(16.7)[c]	—
92 U	10.9	26.1	109
93 Np	(10)[c]	(24)[c]	—
94 Pu	48.87	116.8	110

[a] See text for further discussion.

[b] Value obtained from Madagascar graphite. Value will vary with the degree of stacking faults in the specimen. In an earlier paper a value of 0.031 mj/g-at/deg^2 was found (Keesom and Pearlman[111]).

[c] Estimated value; see text for further discussion.

[d] Clusins and Franzosini[32] found that this value is valid below 20°K; at temperatures > 100°K a value of γ = 5.8 mj/g-at/deg^2 is required to explain the experimental data in this region.

[e] Shinozaki *et al.*[33] also found linear magnetic contribution (4.2 mj/g-at/deg^2) which might account for the high values (γ ~13) reported by other authors (Wolcott,[24] Weiss and Tauer,[34] Elson *et al.*[112] and Guthrie *et al.*[113]).

[f] Recent results indicate a γ value of 8.4 mj/g-at/deg^2 for γ-Mn[33]; however, complete details are not available to evaluate their results.

[g] Data of Parkinson and co-workers[114,115] and Lounasmaa[116] were analyzed by Gschneidner[55] correcting for the presence of other cerium phases assuming they had identical γ values of 7.24 mj/g-at/deg^2.

REFERENCES TO TABLE XIII

1. L. M. Roberts, *Proc. Phys. Soc.* (*London*) **B70,** 744 (1957).
2. D. L. Martin, *Proc. Roy. Soc.* **A263,** 378 (1961).
3. P. L. Smith, *in* "Conf. Phys. Basses Temp.," p. 281. Inst. Intern. du Froid, Paris, 1956.
4. R. W. Hill and P. L. Smith, *Phil. Mag.* [7] **44,** 636 (1953).
5. L. Kaufman and E. V. Clougherty, "Investigation of Boride Compounds for Very High Temperature Applications," Semi-Annual Rept. No. 2. Man Labs, Inc., April, 1963.
6. P. H. Kessom and B. J. C. Van der Hoeven, Jr., *Phys. Rev.* **130,** 1318 (1963).
7. D. L. Burk and S. A. Friedberg, *Phys. Rev.* **111,** 1275 (1958).
8. D. L. Martin, *Phys. Rev.* **124,** 438 (1961).
9. R. E. Gaumer and C. V. Heer, *Phys. Rev.* **118,** 955 (1960).
10. W. H. Lien and N. E. Phillips, *Phys. Rev.* **118,** 958 (1960).
11. I. Esterman, S. A. Friedberg, and J. E. Goldman, *Phys. Rev.* **87,** 582 (1952).
12. D. L. Martin, *Proc. Phys. Soc.* (*London*) **78,** 1482 (1961).
13. P. L. Smith, *Phil. Mag.* [7] **46,** 744 (1955).
14. D. H. Howling, E. Mendoza, and J. E. Zimmerman, *Proc. Roy. Soc.* **A229,** 86 (1955).
15. N. E. Phillips, *Phys. Rev.* **114,** 676 (1959).
16. N. E. Phillips, *Proc. 5th Intern. Conf. Low Temp. Phys. Chem., Madison, Wisconsin, 1957,* p. 414, Univ. of Wisconsin Press, Madison, Wisconsin, 1958.
17. N. Pearlman and P. H. Keesom, *Phys. Rev.* **88,** 398 (1952).
18. P. H. Keesom and G. Seidel, *Phys. Rev.* **113,** 33 (1959).
19. W. H. Lien and N. E. Phillips, *Proc. 7th Intern. Conf. Low Temp. Phys., Toronto, Ont., 1960* p. 675. Univ. of Toronto Press, Toronto, Canada, 1961.
20. L. M. Roberts, *Proc. Phys. Soc.* (*London*) **B70,** 738 (1957).
21. M. Griffel, R. W. Vest, and J. F. Smith, *J. Chem. Phys.* **27,** 1267 (1957).
22. H. Montgomery and G. P. Pells, *Proc. Phys. Soc.* (*London*) **78,** 622 (1961).
23. H. Montgomery, private communication, 1962.
24. N. M. Wolcott, *in* "Conf. Phys. Basses Temp.," p. 286. Inst. Intern. du Froid, Paris, 1956.
25. G. N. Kneip, Jr., J. O. Betterton, Jr., and J. O. Scarbrough, *Phys. Rev.* **130,** 1687 (1963).