

The difference between the calculated and experimental curve in Fig. 5 can be ascribed to deviations from Matthiessen's rule. The limited accuracy to which the various pressure derivatives can be determined does not allow a very enlightening comparison of the deviations between the different alloys. The significant deviation observed does indicate the importance of considering deviations from Matthiessen's rule in pressure studies of the resistivity of alloys.

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#### References

- [1] J. S. DUGDALE, in: *Advances in High Pressure Research*, Vol. 2, Ed. R. S. BRADLEY, Academic Press, New York 1969 (p. 101). (References to the original studies are given in this review.)
- [2] W. S. GOREE and T. A. SCOTT, *J. Phys. Chem. Solids* **27**, 835 (1966).
- [3] J. S. DUGDALE, in: *Physics of Solids at High Pressures*, Ed. C. T. TOMIZULSA and R. M. EMBICK, Academic Press, New York 1965 (p. 16).
- [4] J. E. SCHIRBER, *Cryogenics* **10**, 418 (1970).
- [5] P. W. BRIDGMAN, *Proc. Amer. Acad. Arts Sci.* **68**, 27 (1933).
- [6] P. W. BRIDGMAN, *Proc. Amer. Acad. Arts Sci.* **77**, 189 (1949).
- [7] C. A. ALERS and J. R. NEIGHBOURS, *Bull. Amer. Phys. Soc.* **3**, 70 (1958).
- [8] J. S. DUGDALE and Z. S. BASINSKI, *Phys. Rev.* **157**, 552 (1967).
- [9] R. G. STEWART and R. P. HUEBENER, *Phys. Rev.* **B1**, 3323 (1970).
- [10] M. H. LENNSEN and A. MICHELS, *Physica (Utrecht)* **2**, 1091 (1935).
- [11] L. NORDHEIM, *Ann. Phys. (Germany)* **9**, 655 (1931).
- [12] W. J. O'SULLIVAN, J. E. SCHIRBER and J. R. ANDERSON, *Solid State Commun.* **5**, 525 (1967).
- [13] J. E. SCHIRBER and W. J. O'SULLIVAN, *Colloque International du C.N.R.S.* 188, „Sur les propriétés physiques des solides sans pression“, Grenoble 1970 (p. 113).
- [14] J. M. ZIMAN, *Phys. Rev.* **121**, 1320 (1961).
- [15] A. R. DU CHARME and L. R. EDWARDS, *Phys. Rev.* **B2**, 2940 (1970).
- [16] E. HAGA, *J. Phys. C (Metal Phys. Suppl.)* **1**, 510 (1970).
- [17] B. SEGALL, *Phys. Rev.* **125**, 109 (1962).
- [18] N. F. MOTT and H. JONES, *The Theory of the Properties of Metals and Alloys*, Clarendon Press, Oxford 1936, reprinted Dover, N.Y., 1958.
- [19] D. BEAGLEHOLE and E. ERLBACK, *Solid State Commun.* **8**, 255 (1970).

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