

at different pressures. The relation (11) predicts correctly the decrease of λ with pressure; numerically, however, it does not hold too well as a comparison between our results (5) and (7) shows. This may not be too surprising in view of the approximations used in McMillan's work. It appears that for the very strong-coupling superconductors like Pb (and Hg) only the full strong-

coupling theory will give satisfactory results.

Acknowledgements – One of us (T.M.W.) would like to thank Dr. W.L. McMillan for allowing him to use his inversion program. He also wishes to thank the Physics Department of the University of Alberta for their hospitality during the time when this work was carried out.

REFERENCES

1. FRANCK J.P. and KEELER W.J., *Phys. Lett.* 25A, 624 (1967).
2. FRANCK J.P. and KEELER W.J., *Phys. Rev. Lett.* 20, 379 (1968).
3. ZAVARITSKII N.V., ITSKEVICH E.S. and VORONOVSKII A.N., *Zh. Eksperim. i Teor. Fiz. Pisma* 7, 271, (1968). [Engl. transl.: *JETP Lett.* 7, 211 (1968).]
4. For this method, compare (also Ref. 5): McMILLAN W.L. and ROWELL J.M., *Tunneling and the Strong Coupling Superconductor*, to be published in *Superconductivity*, (Edited by PARKS R.D.)
5. McMILLAN W.L. and ROWELL J.M., *Phys. Rev. Lett.* 14, 108, (1965).
6. ADLER J.G., CHANDRASEKHAR B.S., JACKSON J.E., McMILLAN W.L. and WU T.M., to be published.
7. SCALAPINO D.J., WADA Y. and SWIHART J.C., *Phys. Rev. Lett.* 14, 102 (1965).
8. McMILLAN W.L., *Phys. Rev.* 167, 331, (1968).
9. ANDERSON J.R., O'SULLIVAN W.J. and SCHIRBER J.E., *Phys. Rev.* 153, 721, (1967).
10. WALDORF D.L. and ALERS G.A., *J. appl. Phys.* 33, 3266, (1962).
11. GARFINKEL M. and MAPOTHER D.E., *Phys. Rev.* 122, 459, (1961).

Das Phononspektrum von Blei, und seine Abhängigkeit vom Druck, wurden durch die Auswertung von Tunneleffektmessungen an supraleitendem Blei erhalten. Die Druckabhängigkeit der Elektron-Phonon Kopplungskonstante λ , und von anderen Parametern, zeigt, dass Blei mit steigendem Druck zu schwächerer Kopplung neigt.

Volume 7, No
March

HARVEY
Editor-
PIERRE
Chairman

a sub
The
Phys
Chem
Solid