

with increasing pressure. It would be interesting, although quite difficult, to verify this effect experimentally.

In order to check the theoretical results it would be desirable to have experimental data on solid solubility as a function of pressure. Such measurements for the system NaCl-KCl have been performed in this laboratory [33] and are in reasonable agreement with the theoretical data. However, no spinodal decomposition has been observed. Another possible experiment would be the investigation of the system KBr-KI in the pressure range 0-20 kbars. By application of a rapid quench technique in order to reach the unstable region under the exsolution dome, unambiguous experimental verification of spinodal decomposition in alkali halides might be obtained.

Acknowledgement—The authors would like to thank Professor R. Roy for his interest in this work, for many stimulating discussions, and for a preprint of his paper prior to publication.

REFERENCES

- FANCHER D. L. and BARSCH G. R., *J. Phys. Chem. Solids* 30, 2503 (1969).
- FANCHER D. L. and BARSCH G. R., *J. Phys. Chem. Solids* 30, 2517 (1969).
- DICK B. G. and DAS T. P., *Phys. Rev.* 127, 1053 (1962); *J. appl. Phys.* 33, 2815 (1962).
- BARSCH G. R. and CHANG Z. P., *Phys. Status Solidi* 19, 139 (1967).
- ALDER B. J., *J. Geophys. Res.* 71, 4973 (1966).
- CARPENTER R. W., AHMADIEH A. and PARKER E. R., *Acta Metall.* 14, 543 (1966).
- CARPENTER R. W., *Acta Metall.* 15, 1297 (1967).
- DOUGLASS D. L. and BARBEE T. W., *J. Mat. Sci.* 4, 121 (1969).
- GIBBS J. W., *Trans. Conn. Acad.* 3, 343 (1878).
- CAHN J. W., *J. appl. Phys.* 34, 3581 (1963).
- GOLDSTEIN M., *J. Am. ceram. Soc.* 48, 126 (1965).
- SCHULTZ A. H. and STUBICAN V. S., *Phil. Mag.* 18, 929 (1968).
- WIMMER F. T., KOBES W. and FINE M. E., *J. appl. Phys.* 34, 1775 (1963).
- WOLFSON R. G., KOBES W. and FINE M. E., *J. appl. Phys.* 37, 704 (1966).
- GRAEFFE G. and NURMIA, M., *Z. Naturf.* 21a, 165 (1966).
- DARKEN L. S. and GURRY R. W., *Physical Chemistry of Metals*, McGraw Hill, New York (1953).
- CAHN J. W., *Acta Metall.* 9, 795 (1961).
- CAHN J. W., *Acta Metall.* 10, 179 (1962).
- HILLIARD J. E., *Ind. Eng. Chem.* 58, 19 (1966).
- SLATER, J. C., *Introduction to Chemical Physics*, McGraw Hill, New York (1963).
- MURNAGHAN F., *Proc. Natl. Acad. Sci.* 30, 244 (1944).
- HAUSSÜHL S., *Z. Phys.* 159, 223 (1960).
- HAUSSÜHL S., *Z. Kristallogr.* 110, 67 (1958).
- KOLIWAD K. M., GHATE P. B. and RUOFF A. L., *Phys. Status Solidi* 21, 507 (1967).
- BARSCH G. R. and SHULL H. E., *Phys. Status Solidi* 43 (1971).
- REDDY P. J., *In Physics of Solids at High Pressure* (Edited by C. T. Tomizuka and R. M. Emrick) Academic Press, New York (1965).
- CHANG Z. P. and BARSCH G. R., *J. Phys. Chem. Solids* 31 (1970).
- BARTELS R. A. and SCHUELE D. E., *J. Phys. Chem. Solids* 26, 537 (1965).
- GHATE P. B., *Phys. Rev.* 139, A1666 (1965).
- VEDAM K. and SCHMIDT E. D. D., *J. Mat. Sci.* 1, 310 (1966).
- VEDAM K., SCHMIDT E. D. D., KIRK J. L. and SCHNEIDER W. C., *Mat. Res. Bull.* 4, 573 (1969).
- VEDAM K., *Phys. Rev.* (to be published).
- BHARDWAJ M., DACHILLE F. and ROY R., *J. Phys. Chem. Solids* 31, (1970).
- BORN M. and HUANG K., *Dynamical Theory of Crystal Lattices*, Clarendon Press, Oxford (1954).
- LOMBARDI E. and JANSEN L., *Phys. Rev.* 136, 1011 (1964).
- PISTORIUS C. W. F. T., *J. Phys. Chem. Solids* 26, 1003 (1965).
- PISTORIUS C. W. F. T., *J. Phys. Chem. Solids* 25, 1477 (1964).
- BASSET W. A., TAKAHASHI T., MAO H. K. and WEAVER J. S., *J. appl. Phys.* 39, 319 (1968).
- LEIBFRIED G. and LUDWIG W., in *Solid State Physics* (Edited by F. Seitz and D. Turnbull) Vol. 12, p. 275, Academic Press, New York (1961).
- LANDOLT BÖRNSTEIN, *Zahlenwerte und Tabellen*, Vol. 1, part 4, Springer Verlag, Berlin (1955).
- HOVI M., *Ann. Univ. Turkuensis* AI, No. 89, 1 (1966).
- HOVI M., *Ann. Acad. Sci. Fennicae* AVI, No. 315, 1 (1969).
- WASASTJERNA J. A., *Soc. Sci. Fennicae, Comment. Phys.-Math.* XV, No. 3 (1949).
- HOVI M., *Soc. Sci. Fennicae, Comment. Phys.-Math.* XV, No. 12 (1950).
- SCHEIL E. and STADELMAIER H., *Z. Metallk.* 43, 227 (1952).

LATTICE THEORY OF ALKALI HALIDE SOLID SOLUTIONS—III.
PRESSURE DEPENDENCE OF SOLID SOLUBILITY AND SPINODAL
DECOMPOSITION

D.L. Fancher and G.R. Barsch

Erratum:

Ref. 33 should read: M.C. Bhardwaj and R. Roy, *J. Phys. Chem. Sol.* 32, 1603 (1970).