

- Ahrens, T. J., T. Takahashi, and G. F. Davies, A proposed equation of state of stishovite, *J. Geophys. Res.*, **75**, 310-316, 1970.
- Akimoto, S., and Y. Syono, Coesite-stishovite transition, *J. Geophys. Res.*, **74**, 1653-1659, 1969.
- Al'tshuler, L. V., R. F. Trunin, and G. V. Simakov, Shock-wave compression of periclase and quartz and the composition of the earth's lower mantle, *Izv. Acad. Sci. USSR Phys. Solid Earth*, no. 10, 657-660, 1965.
- Anderson, D. L., and H. Kanamori, Shock-wave equations of state for rocks and minerals, *J. Geophys. Res.*, **73**, 6477-6502, 1968.
- Anderson, O. L., E. Schreiber, R. C. Liebermann, and N. Soga, Some elastic constant data on minerals relevant to geophysics, *Rev. Geophys. Space Phys.*, **6**, 491-524, 1968.
- Bassett, W. A., and J. D. Barnett, Isothermal compression of stishovite and coesite up to 85 kilobars at room temperature by X-ray diffraction, *Phys. Earth Planet. Interiors*, **3**, 54-60, 1970.
- Bassett, W. A., T. Takahashi, H. K. Mao, and J. S. Weaver, Pressure-induced phase transformation in NaCl, *J. Appl. Phys.*, **39**, 319-325, 1968.
- Birch, F., Elasticity and constitution of the earth's interior, *J. Geophys. Res.*, **57**, 227-286, 1952.
- Chao, E. C. T., J. J. Fahey, J. Littler, and D. J. Milton, Stishovite, *Amer. Mineral.*, **46**, 807, 1962.
- Dugdale, J. S., and D. K. C. MacDonald, The thermal expansion of solids, *Phys. Rev.*, **89**, 832-834, 1953.
- Holm, J. L., O. J. Kleppa, and E. F. Westrum, Thermodynamics of polymorphic transformations in silica, *Geochim. Cosmochim. Acta*, **31**, 2289-2307, 1967.
- Joint Army, Navy, and Air Force (JANAF) Thermochemical Tables, Nat. Bur. of Stand., Washington, D.C., 1965. (Also available as SN 0303-0872, Govern. Print. Office, Washington, D.C.)
- Jones, A. A., W. M. Isbell, F. H. Shipman, R. D. Perkins, S. J. Green, and C. J. Maiden, Material property measurements for selected materials, *Rep. NAS2-3427*, 56 pp., Gen. Mot. Mater. and Struct. Lab., Warren, Mich., 1968.
- Kieffer, S. W., and B. Kamb, The specific heats of solids of geophysical interest, *Rev. Geophys. Space Phys.*, **10**, in press, 1972.
- Knopoff, L., and J. N. Shapiro, Comments on the interrelationships between Grüneisen's parameter and shock and isothermal equations of state, *J. Geophys. Res.*, **74**, 1439-1450, 1969.
- Leibfried, G., and W. Ludwig, Theory of anharmonic effects in crystals, *Solid State Phys.*, **12**, 275-444, 1961.
- Levin, E. M., C. R. Robbins, and H. F. McMurdie, *Phase Diagrams for Ceramicists*, 2nd ed., p. 84, American Ceramics Society, Columbus, Ohio, 1969.
- Liu, L., W. A. Bassett, and T. Takahashi, Effect of pressure on the lattice parameters of stishovite, *J. Geophys. Res.*, **77**, this issue, 1972.
- Mathews, J., and R. L. Walker, *Mathematical Methods of Physics*, p. 365, W. A. Benjamin, New York, 1965.
- McQueen, R. G., Shock-wave data and equation of state, in *Seismic Coupling, VESIAC Report*, edited by G. Simmons, pp. 53-106, Geophys. Lab., Univ. of Mich., Ann Arbor, 1968.
- McQueen, R. G., J. N. Fritz, and S. P. Marsh, On the equation of state of stishovite, *J. Geophys. Res.*, **68**, 2319-2322, 1963.
- Mizutani, H., Y. Hamano, and S. Akimoto, Elastic-wave velocities of polycrystalline stishovite, *J. Geophys. Res.*, **7**, 3744-3749, 1972.
- Nicol, M., and N. Y. Fong, Raman spectrum and polymorphism of titanium dioxide at high pressures, *J. Chem. Phys.*, **54**, 3167-3170, 1971.
- Roberts, R. W., and R. Ruppig, Volume dependence of the Grüneisen parameter of alkali halides, *Phys. Rev. B*, **4**, 2041-2046, 1971.
- Robie, R. A., P. M. Bethke, M. S. Toulmin, and J. L. Edwards, X-ray crystallographic data, densities and molar volume of minerals, in *Handbook of Physical Constants, Mem. 97*, edited by S. P. Clark, Jr., pp. 27-74, Geological Society of America, Boulder, Colo., 1966.
- Skinner, B. J., Thermal expansion, in *Handbook of Physical Constants, Mem. 97*, edited by S. P. Clark, Jr., pp. 75-96, Geological Society of America, Boulder, Colo., 1966.
- Slater, J. C., *Introduction to Chemical Physics*, p. 22, McGraw-Hill, New York, 1939.
- Stishov, S. M., and S. V. Popova, A new dense modification of silica, *Geokhimiya*, no. 10, 923-926, 1961.
- Thomsen, L., On the fourth-order anharmonic equation of state of solids, *J. Phys. Chem. Solids*, **31**, 2003-2016, 1970.
- Thomsen, L., The fourth-order anharmonic theory: Elasticity and stability, *J. Phys. Chem. Solids*, **33**, 363-378, 1972.
- Trunin, R. F., G. V. Simakov, M. A. Podurets, B. N. Moiseyev, and L. V. Popov, Dynamic compressibility of quartz and quartzite at high pressure, *Izv. Acad. Sci. USSR Phys. Solid Earth*, no. 1, 13-20, 1971a.
- Trunin, R. F., G. V. Simakov, and M. A. Podurets, Compression of porous quartz by strong shock waves, *Izv. Acad. Sci. USSR Phys. Solid Earth*, no. 2, 33-39, 1971b.
- Wackerle, J., Shock-wave compression of quartz, *J. Appl. Phys.*, **33**, 922-937, 1962.
- Weaver, J. S., Equation of state of NaCl, MgO, and stishovite, Ph.D. thesis, 173 pp., Univ. of Rochester, Rochester, N.Y., 1971.

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