Record Nr. UNINA9910450992403321 Autore Eliezer Shalom Titolo Fundamentals of equations of state [[electronic resource] /] / Shalom Eliezer, Ajoy Ghatak, Heinrich Hora River Edge, N.J., : World Scientific, c2002 Pubbl/distr/stampa **ISBN** 981-277-813-6 Descrizione fisica 1 online resource (xviii, 366 p.): ill Altri autori (Persone) GhatakA. K <1939-> (Ajoy K.) HoraHeinrich <1931-> Disciplina 530.4 Soggetti Equations of state Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Originally published: An introduction to equations of state. Cambridge: Note generali New York: Cambridge University Press, c1986. Includes bibliographical references (p. [355]-361) and index. Nota di bibliografia Nota di contenuto A summary of thermodynamics; equation of state for an ideal gas; law of equipartition of energy and effects of vibrational and rotational motions; Bose-Einstein equation of state; Fermi-Dirac equation of state; ionization equilibrium and the Saha equation; Debye-Hnckel equation of state; the Thomas-Fermi and related models; Grnneisen equation of state; an introduction to fluid mechanics in relation to shock waves; derivation of hydrodynamics from kinetic theory; studies of the equations of state from high-pressure shock waves in solids: equation of state and inertial confinement fusion; applications of equations of state in astrophysics; equations of state in elementary particle physics. Sommario/riassunto The equation of state was developed for ideal gases & proved central to the development of early molecular & atomic physics. This book is an

account of the equation of state & its applications in theoretical

physics, chemistry & engineering.