

Editors state that they dedicate this series to a continuing review and discussion of the significant issues relating to energy: the technologies of energy generation and use; regional and global energy systems; environmental and societal impact of energy systems; and the economics and politics of energy and scientific and research frontiers in energy. This first volume of the series covers energy supply and distribution, resources and technologies, energy in the economy, energy conservation, impacts of energy in an environment, health and safety, energy policy and politics, as well as international aspects of energy. This is a concise, well-proportioned review of the energy problems of today and represents a good start in a series that will see a lot of use in this period of energy crises. *MEW*

Annual Review of Materials Science, Volume 6

Editor Robert A. Huggins
Publisher Annual Reviews, Inc. (1976)
Pages 435
Price \$17.00

This is the sixth volume of the *Annual Reviews of Materials Science*, a series that critically assesses the state of science in the field of materials. This volume covers such materials and areas as polymers, use of materials by people, electron-microscopy of inorganic materials, and glassy metals. Other subjects covered are soft modes on the structure and properties of materials, intercalation compounds of graphite, chemical properties of bone mineral, corrosion of implant materials, polymer-resistant systems for photo and electron lithography, materials for solar photovoltaic energy conversion, mechanical spectroscopy, metal joining methods, and the structure of noncrystalline materials. This volume, along with the previous volumes in the series, is a useful addition for those working in materials science. *MEW*

Advances in Nuclear Science and Technology, Volume 9

Editor Ernest J. Henley
Publisher Academic Press, Inc. (1976)
Pages 359
Price \$36.50

This is the ninth in a series of *Advances in Nuclear Science and Technology*, the purpose of which is the presentation of specific new material as well as reflective use of major segments of the fields of nuclear science and technology.

The present volume covers such areas as nuclear power reactors and the evaluation of population hazards, the solution of criticality problems by Monte Carlo methods, and high-temperature chemistry of ceramic nuclear fuels, with emphasis on non-stoichiometry as well as on developments in perturbation theory and computer technology program interchange and standards. This volume stresses safety and materials as well as computation methods and is a valuable addition to libraries. *MEW*

Methods in Computational Physics, Volume 15

Editor Gideon Gilat
Publisher Academic Press, Inc. (1976)
Pages 429
Price \$43.50

Volume 15, recently published by Academic Press, Inc., is another in the series of *Methods in Computational Physics*, which has been regularly published to present the latest in advances in research and applications in a wide variety of scientific fields. This volume, devoted to *Vibrational Properties of Solids*, covers these specific topics: The Calculation of Phonon Frequencies; The Use of Computers in Scattering Experiments with Slow Neutrons;

Group Theory of Lattice Dynamics by Computer; Lattice Dynamics and Related Properties of Point Defects; Lattice Dynamics of Surface Solids; Vibrational Properties of Amorphous Solids; Lattice Dynamics of Quantum Crystals; Methods of Brillouin Zone Intergration; and Computer Studies of Transport Properties in Simple Models of Solids. This volume will serve as a useful reference for those concerned with properties of solids. *RP*

Methods in Computational Physics, Volume 16

Editor John Killeen
Publisher Academic Press, Inc. (1976)
Pages 450
Price \$47.00

Academic Press has recently published the latest volume in the series *Methods in Computational Physics*, a series that is devoted to presenting the latest advancements in both research and application in a number of scientific areas.

Volume 16 covers a wide range of subject material in the area of controlled fusion. The specific topics covered are: Numerical Magneto-hydrodynamics for High-Beta Plasma; Waterbag Methods in Magneto-hydrodynamics; Solution of Continuity Equations by the Method of Flux-Corrected Transport; Multifluid Tokamak Transport Models; ICARUS—A One-Dimensional Plasma Diffusion Code; Equilibria of Magnetically Confined Plasmas; Computation of the Magneto-hydrodynamic Spectrum in Axisymmetric Toroidal Confinement Systems; Collective Transport in Plasmas; Electromagnetic and Relativistic Plasma Simulation Models; Particle-Code Models in the Nonradiative Limit; and the Solution of the Kinetic Equations for a Multispecies Plasma.

This volume would serve as a useful reference for those directly concerned with the field of controlled fusion as well as for others in related fields. *RP*