

tron scattering from a unified viewpoint. They set out by defining the scattering law in terms of correlation functions among nucleus and spins in the target. This approach is extended and applied to cover all branches of neutron scattering: namely, nuclear and magnetic Bragg scattering, phonons and spin waves, liquids and gases, diffuse and defect scattering.

The main subjects of the book (10 chapters out of 15) are elastic and inelastic scattering from periodic crystalline solids. After an excellent introduction of the elementary theory, the nuclear Bragg and phonon scattering is discussed in the next three chapters. A particularly informative treatment, with useful tables, is given of the multiphonon cross section. The next seven chapters are devoted to magnetic scattering, the authors' main scientific interest. Here we find many detailed and vivid discussions on magnetic interactions in solids. Experimentalists like myself will find many stimulating suggestions for future experiments. Experimental results are also quoted in some detail; these include spin-density measurements on nickel and iron, spin configurations in chromium, and spin-wave dispersion relations for several metals and compounds. Polarization analysis of the neutron is also treated in detail, with a discussion of experimental results.

The last five chapters each discuss separate topics; these concern liquids, gases, critical phenomena, alloys, and defects. Though relatively short, they give a well-balanced view of these topics. As a whole, this book is indeed invaluable to scientists actively working in the field. It is also highly recommended to scientists in other disciplines for a clear understanding of what can be accomplished with thermal neutron scattering.

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New Journals Received

Instructional Science. An International Journal. Vol. 1, No. 1, Mar. 1972. Quarterly. American editor: Roulette Wm. Smith (University of California, Santa Barbara). Elsevier Publishing Co., Box 211, Amsterdam, The Netherlands. \$14.20; to institutions, \$27.30.

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Medical Center). Karger, Basel (U.S. distributor, Albert J. Phiebig, Inc., P.O. Box 352, White Plains, N.Y. 10602). \$22.

Journal of Psycholinguistic Research. Vol. 1, No. 1, 1971. Quarterly. Editor: R. W. Rieber (Pace College, New York). Plenum Publishing Corp., 227 West 17th St., New York, N.Y. 10011. \$18; to institutions, \$28.

Preventive Medicine. An International Journal Devoted to Practice and Theory. Official Journal of the American Health Foundation. Vol. 1, Nos. 1-2, Mar. 1972. 4 issues a year. Editor: Ernest L. Wynder (American Health Foundation, New York). Academic Press, Inc., 111 Fifth Ave., New York, N.Y. 10003. To institutions, \$35.

Resuscitation. Vol. 1, No. 1, Mar. 1972. Quarterly. American editor: R. J. White (Cleveland Metropolitan General Hospital). Middlesex Publishing Co. Ltd., 21 New Street, London, EC2M 4UN, England. \$27.

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Chemical Properties and Analysis of Refractory Compounds. G. V. Samsonov, Ed. with the collaboration of I. N. Frantsevich, V. N. Eremenko, T. N. Nazarchuk, and O. I. Popova. Translated from the Russian edition (Kiev, 1969) by G. D. Archard. Consultants Bureau, New York, 1972. viii, 128 pp., illus. Paper, \$22.50.

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Encyclopedia of Industrial Chemical Analysis. Vol. 15, Ion Exchange Resins to Mercaptans. Foster Dee Snell and Leslie S. Ettre, Eds. Interscience (Wiley), New York, 1972. xvi, 574 pp., illus. \$45; by subscription, \$35.

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