viewed. Succeeding chapters contain a systematic presentation of the recent developments in studies of atomistic structure, electronic structure, excitations, metal overlayers and surface chemistry. A thorough description of recent experimental and theoretical studies is given. The presentation is characterized by a determined effort to identify and explain the underlying physics through the introduction of simple models. Frequent reference is made to the ionic and tight-binding pictures.

As a highly readable introduction to this subject, the book will be of value to the advanced undergraduate or post-graduate student. Our understanding of oxide surfaces has advanced enormously in the past few years and the research effort dedicated to these systems is still growing rapidly. The interdisciplinary nature of this work – involving (at least) physics, chemistry, geology and materials science – has led to a profusion of different approaches and attitudes. This book draws together many of these strands and thus also provides an excellent point of reference for established researchers in this field. It provides an excellent companion to *The Surface Science of Metal Oxides*, by V. E. Henrich & P. A. Cox (Cambridge: Cambridge University Press, 1994), which concentrates more on experimental studies. Noguera's book does not examine the difficult problem of highly correlated oxide materials for which the standard references remain N. F. Mott's *Metal–Insulator Transitions* (London: Taylor & Francis Ltd, 1974) and P. A. Cox's *Transition Metal Oxides: an Introduction to their Electronic Structure and Properties* (Oxford: Clarendon Press, 1992).

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Books Received

The following books have been received by the Editor. Brief and generally uncritical notices are given of works of marginal crystallographic interest; occasionally, a book of fundamental interest is included under this heading because of difficulty in finding a suitable reviewer without great delay.

Collected works of Dorothy Crowfoot Hodgkin. Vol. I. **Insulin.** Vol. II. **Cholesterol, penicillin and other antibiotics.** Vol. III. **General crystallography and essays.** Edited by G. G. DODSON, J. P. GLUSKER, S. RAMASESHAN and K. VENKATESAN. Pp. cxliii + 2230. Bangalore: Indian Academy of Sciences, 1996. Price US $120 (Individual vols. US $40). ISBN 81-7296-020-4. A review of these books, by E. Baker, has been published in the July 1997 issue of *Acta Cryst. Section A*, pages 528–530. Copies of these books can be ordered from: The Indian Academy of Sciences, C. V. Raman Avenue, Post Box No. 8005, Sadashivanagar P. O., Bangalore 560 080, India; The British Crystallographic Association, Professor J. A. K. Howard, Department of Chemistry, University of Durham, South Road, Durham DH1 3LE, England; or Polycrystal Book Service, 425 Dayton Towers Drive, No. 12F, Dayton, OH 45410, USA.

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Synchrotron radiation techniques in industrial, chemical, and materials science. Edited by K. L. D'AMICO, L. J. TERMINELLO & D. K. SHUH. Pp. viii + 259. New York: Plenum Publishing Corporation, 1996. Price US $89.50. ISBN 0-306-45389-4. This volume contains the proceedings of two American Chemical Society symposia (Washington, DC, August 1994 and Chicago, IL, August 1995) devoted to the title topic. The intent of these symposia was 'to present a broad overview of several current topics in industrial, chemical, and materials-based SR research to a chemically inclined audience'.

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X-ray and neutron dynamical diffraction, theory and applications. Edited by A. AUTHIER, S. LAGOMARSINO and B. K. TANNER. Pp. ix + 419. New York: Plenum Publishing Corporation, 1996. Price US $125.00. ISBN 0-306-45501-3. This volume collects the proceedings of the eponymous 23rd International Course of Crystallography, a NATO Advanced Study Institute, held in Erice, Sicily, in April 1996. The first part reviews the basic principles of dynamical diffraction by perfect and nearly perfect crystals, the second deals with diffraction topography, the third with X-ray standing waves, the fourth with the theory and applications of high-resolution diffractometry, the fifth with multiple-beam diffraction and the sixth with X-ray and neutron interferometry.