

## BOOK REVIEWS

**Matrix Isolation Spectroscopy**, A. J. Barnes, W-J. Orville-Thomas, A. Müller and R. Gaufres, Published by D. Reidel Publishing Company US\$69.50.

This book is based on lectures given at a NATO Advanced Study Institute in July, 1980. Authors, Editors and Publishers are to be congratulated on the fact that it appeared in bookshops just over a year later.

Published Conference proceedings can easily be little more than a collection of disconnected articles and of little more than transient significance. This is not the case for the present volume. The book contains twenty-four chapters divided into three sections; Techniques, Matrix effects and Applications. Nearly half of the six-hundred page book is devoted to the first of these topics and provides both an excellent introduction and also a 'state of the art' account. The section on matrix effects, although extending to only five chapters manages, also, to give a good overview of the subject whilst being very detailed at some points. It is inevitable that selectivity is exercised in the section on Applications but, again, the areas of major importance have been identified and included.

The use by all contributors of a common typeface gives the volume an appearance of unity, an appearance which is reinforced by labelling as chapters what are, in fact, quite separate articles. Although there is little evidence of editorial intervention in or re-typing of submitted articles there is an unexpected unity between them. I enjoyed reading this book and learnt a great deal from a most useful compilation.

S. F. A. KETTLE

**Emission and Scattering Techniques**, (ed. Peter Day): Proceedings of the NATO Advanced Study Institute, Alghero, Sardinia, Italy, 14-25 September 1980. Volume 73 of Series C (Mathematical and Physical Sciences) of NATO Advanced Study Institutes Series. 390 pages. ISBN 90-277-1317-0. Cloth Hfl. 110.— D. Reidel Publishing Company, Dordrecht/Boston/London 1981.

Though there has been a large number of Advanced Study Institutes (high-level summer schools) organized by NATO since 1959, it is more recently that most of the proceedings are published in 5 series by three publishers. With exception of the chapter on luminescence of inorganic solids, the physical techniques discussed are mainly applied to surfaces. Cox, Wertheim, Ascarelli and Cini write excellent chapters on photo-electron spectra of solid surfaces (and Bock of gaseous molecules) and other chapters treat the related techniques of Bremsstrahlung Isochromat and of X-Ray Emission Spectroscopy, the fashionable EXAFS (using synchrotron continuous spectra), scattering of neutrons and of heavy ions from surfaces.

It is a remarkable up-to-date review of experimental techniques showing recent rapid development written by active and comprehensible authors.

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