Acta Cryst. (1981). A**37**, 445

Commission on Journals

Submission of Manuscripts Based on Powder Diffraction Profile Fitting or Refinement (Rietveld) Methods: Deposition of Data

A steadily increasing number of manuscripts that depend on the use either of powder diffraction profile fitting or refinement (Rietveld) methods are being submitted for publication. Commission policy has recently required that figures in such manuscripts that present the experimental and calculated diffraction profiles of the material studied should also contain the difference profile ($I_{obs} - I_{calc}$), as an aid to the reader. It is recognized that the primary diffraction data cannot be extracted satisfactorily from such figures. The Commission has now decided that, in addition to the figure, the authors of such manuscripts should deposit the numerical intensity of each measured point on the profile, as a function of scattering angle.

The attention of authors is also drawn to notices concerning stereofigures [*Acta Cryst.* (1978). B**34**, 3846], dimensions of material for deposition [*Acta Cryst.* (1979). B**35**, 792], estimated standard deviations, SI units and anisotropic thermal parameters [*Acta Cryst.* (1979). B**35**, 1302] submission of connected computer output [*Acta Cryst.* (1979). B**35**, 2284–2285], chemical-connectivity relationships [*Acta Cryst.* (1980). B**36**, 1524], and estimated standard deviations with a zero value for varied parameters [*Acta Cryst.* (1980). B**36**, 2508], in addition to the information given in *Notes for Authors* [*Acta Cryst.* (1978). A**34**, 143–157].

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Acta Crystallographica

Appreciation of Co-editors' Service

The Co-editors of *Acta Crystallographica* and the *Journal of Applied Crystallography* serve the crystallographic community with great devotion and distinction, and it is appropriate that the Executive Committee of the Union records its sincere appreciation for the work of all present and past Co-editors from time to time. The Executive Committee particularly wishes to express its appreciation and gratitude, on behalf of the Union and the international crystallographic community, to Dr P. J. Wheatley for his 12 years of outstanding service as a Co-editor of *Acta Crystallographica*. On his retirement as a Co-editor at the end of 1980, Dr Wheatley had dealt with 3033 papers. In the last five years, he received between three and four hundred manuscripts annually. A notice concerning the redistribution of new manuscripts submitted to *Acta Crystallographica* that must inevitably accompany his retirement has been published in *Acta Cryst.* (1981), A**37**, 138.

Book Reviews

Works intended for notice in this column should be sent direct to the Book Review Editor (J. H. Robertson, School of Chemistry, University of Leeds, Leeds LS2 9JT, England). As far as practicable books will be reviewed in a country different from that of publication.

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Ordering in strongly fluctuating condensed matter systems. Edited by T. RISTE. Pp. xvi + 474. New York: Plenum Press, 1980. Price US $55.00.

This book consists of a collection of papers, both invited and contributed, which were presented at a NATO Advanced Study Institute held at Geilo, Norway, 16–27 April 1979. On the whole, it represents a timely and well organized review of the present status of both the theory and supporting experimental work relating to ordering in strongly fluctuating systems and phase transitions.

The introduction to each of the specific areas covered in the book is developed in an invited, tutorial paper. These introductory treatises tend to be well written and serve both to familiarize the reader with the current status of the field and to lay the groundwork for some of the more 'state-of-the-art' papers which follow. An excellent example is the paper by Villian on *Two-dimensional solids and their interactions with substrates*. This begins with a review of existing theories of idealized two-dimensional (2D) systems, followed by comparisons with experimental data on real 2D systems, with particular emphasis on adsorbed layer systems. Further approximations to 2D solids are then considered through discussions of incommensurate solid phases. This review concludes with discussions representing further departures from the idealized case, *e.g.* anisotropic substrates are considered through the Pokrovskii–Talapov model for commensurable–incommensurable transitions. Following this, the ideas are clearly demonstrated by application to rare-gas monolayers on graphite. Specific applications of other theories developed in the text are made to low-dimensional magnets, mercury chain compounds, smectics and spin glasses.

One observation that appears to have evolved at the conference is the realization that, based on theoretical considerations, there are a number of non-linear excitations, such as solitons, walls, dislocations and vortices, which can be expected to occur at or below points of lower critical dimensionality. Some of these, such as 1D magnets, have been experimentally verified, but apparently many of these theoretical predictions are still awaiting experimental support.

Since each of the thirty three papers contained in the book is separately prepared, usually by a different author (some authors have contributed more than one paper), there are the expected variances in style, notation and typescript (photo-offset printing was used). But since each paper is essentially self-contained, the development of ideas is usually coherent and intelligible. Also, although occasional typographical errors do occur, they are certainly not abundant, perhaps to