

some tinkering with scripts, it is straightforward to develop your own, either for teaching or research.

There are obviously other programs available that are capable of doing similar things to *Crystallographica*. For example, the freely available (DOS version) *POWDERCELL* program displays the structure as well as the powder pattern, gives distances *etc.* but does not provide access to specific functions and does not allow one to write scripts. On the other hand, systems like *CERIUS* do give superior visualization and ease of use in the user interface, but also require more powerful computers and do cost substantially more. *Crystallographica* with its seamless integration of graphing and crystallographic computing presents an extremely useful compromise. The tool set of functions as well as the display capabilities allowing one to produce 'animation sequences' lets one write scripts that can address many crystallographic problems that would otherwise require extensive programming.

Crystallographica was installed on a 486/66 processor with 16 MBytes of memory and was run under Windows 95. The performance was adequate, giving acceptable update rates of any of the animated script examples that were included in the distribution. A Pentium-processor-based system is expected to give a better performance, but even a 386 processor could be used, albeit with considerably poorer performance.

Crystallographica is definitively recommended for anybody involved in X-ray diffraction who needs to write programs dealing with nonstandard problems, integrating graphing as well as powder-pattern calculations. It is a great tool for teaching aspects of symmetry and diffraction, and it is strongly recommended.

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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.

J. Appl. Cryst. (1997). **30**, 419

Handbook of crystal growth. Vol. 2: Bulk crystal growth. a: Basic techniques; b: Growth mechanisms and dynamics. Edited by D. T. J. HURLE. Pp. xv + 1299. Amsterdam: North-Holland Elsevier Science Publishers, 1994. Price Dfl 695, US\$ 397.00. ISBN 0-444-81554-6. A review of this book, by Peter Rudolph, has been published in the May 1997 issue of *Acta Crystallographica Section A*, pages 403–404.

Handbook of crystal growth. Vol. 3: Thin films and epitaxy. a: Basic techniques; b: Growth mechanisms and dynamics. Edited by D. T. J. HURLE. Pp. xviii + 1065. Amsterdam: North-Holland Elsevier Science Publishers, 1994. Price Dfl 695. ISBN 0-444-81556-2. (Set price, 3 vols., Dfl 1450. ISBN 0-444-8993-2.) A review of this book, by Robert B. Heimann, has been published in the May 1997 issue of *Acta Crystallographica Section A*, pages 404–406.

Molecular beam epitaxy. 2nd edition. By M. A. HERMAN and H. SITTER. Pp. xiv + 453. Heidelberg: Springer-Verlag GmbH & Co., 1996. Price DM 98.00. ISBN 3-540-60594-0. This book 'describes a technique in widespread use for the production of high-quality semiconductor devices. It discusses the most important aspects of the MBE apparatus, the physics and chemistry of the crystallization of various materials and device structures, and the characterization methods that relate the structural parameters of the grown (or growing) film to the technologically relevant procedure. In this second edition two new fields have been added: crystallization of as-grown low-dimensional heterostructures, mainly quantum wires and quantum dots, and in-growth control of the MBE crystallization process of strained-layer structures. Out-of-date material has been removed.'