

Mathieson, 1977), so rotation,  $\varphi$ , of the axis of curvature of the bent crystal relative to the plane of reflexion, Fig. 1(a), can be used to achieve controlled variation of the radius of curvature,  $\varrho$ , from infinity, i.e. zero curvature, ( $\varphi = 0$  or  $180^\circ$ ), through any value,  $\varrho = \varrho_0 / \sin \varphi$ , to the limiting value,  $\varrho_0$  ( $\varphi = 90$  or  $270^\circ$ ), determined by the bending stress applied in the particular experiment. The formula,  $\varrho = \varrho_0 / \sin \varphi$ , is appropriate only for small curvatures.

Fig. 1(b) shows the exploded diagram of a compact crystal-bending device constructed for mounting on a goniometer head. The crystal plate, X, is held between pairs of parallel edges, one,  $b'b''$ , in component B and the other,  $c'c''$ , in component C. Rotation of A applies pressure to B and this exerts a transverse symmetrical bend to the crystal specimen. The pins,  $p'p''$ , in B which locate in holes in C prevent rotation of B relative to C. With this assembly mounted on a diffractometer, use of the  $\varphi$  axis of the diffractometer allows exploration of the range of curvature from infinity to the limit,  $\varrho_0$ , set by the adjustment of component A. Estimate of the curvature,  $\varrho_0$ , is most readily achieved by optical means.

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### References

- Antonini, M., Corchia, M., Nicotera, E. & Rustichelli, F. (1972). *Nucl. Instrum. Methods*, **104**, 147–152.  
Lawrence, J. L. & Mathieson, A. McL. (1977). *Acta Cryst.* **A33**, 288–293.  
Mathieson, A. McL. (1975). *Acta Cryst.* **A31**, 769–774.  
Mathieson, A. McL. (1977). *Acta Cryst.* **A33**, 610–617.  
White, J. E. (1950). *J. Appl. Phys.* **21**, 855–859.

### Crystallographers

*This section is intended to be a series of short paragraphs dealing with the activities of crystallographers, such as their changes of position, promotions, assumption of significant new duties, honours, etc. Items for inclusion, subject to the approval of the Editorial Board, should be sent to the Executive Secretary of the International Union of Crystallography (J. N. King, International Union of Crystallography, 13 White Friars, Chester CH1 1NZ, England).*

Dr **A. V. Crewe**, who has been Dean of the Physics Sciences Division at the University of Chicago since 1971 and who invented the scanning transmission electron microscope in 1964, has been awarded the 1977 Albert A. Michelson Award of the Franklin Institute.

Dr **A. L. G. Rees**, Chief of the Division of Chemical Physics of the CSIRO, in Clayton, Victoria, Australia, has been made a Companion of the Order of the British Empire.

Dr **K. H. Steigerwald** of Munich has been awarded the 1977 Diesel Gold Medal of the German Institute for Inventions for his pioneering work in electron beam technology.

### 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.*

**Microscope photometry.** By **H. Piller**. Pp. x + 253, Figs. 79, Tables 8. Berlin, Heidelberg, New York: Springer, 1977. Price (cloth) DM 68.00, US \$30.00.

Although the essentials of the microscope have been known since the time of Abbe, there have been remarkable developments in the past couple of decades, notably in the use of computers for the design of lenses, the production of a range of very sensitive photosensors, and the growth of techniques of automation. This expensive, but very well-produced and well-illustrated book, originating from Carl Zeiss, gives a beautifully systematic, detailed and practical survey of the sciences of microscopy and photometry used in combination.

**Neutron scattering in chemistry.** By **G. E. Bacon**. Pp. 186, Figs. 119, Tables 15. London, Boston: Butterworths, 1977. Price £12.50.

A review of this book, by Lynne L. Merritt Jr, has been published in the February 1978 issue of *Acta Crystallographica*, Section B, page 700.