

When the monochromator is set after the specimen, the final intensity can be expressed in terms of the incident X-ray intensity. From (2), the ratio is obtained as

$$I''/I_o = \frac{1}{2}k^2 k'^2 [(\cos^2 2\theta_1 \cos^2 \rho + \sin^2 \rho) \cos^2 2\theta_2 + \cos^2 2\theta_1 \sin^2 \rho + \cos^2 \rho]. \quad (4)$$

Then the polarization factor P is expressed as

$$P = \frac{1}{2}[(\cos^2 2\theta_1 \cos^2 \rho + \sin^2 \rho) \cos^2 2\theta_2 + \cos^2 2\theta_1 \sin^2 \rho + \cos^2 \rho]. \quad (5)$$

For the powder method in which the specimen rotation axis is parallel to the diffraction plane of the monochromator crystal, ρ is fixed at zero. Then the polarization factor is reduced to

$$P = \frac{1}{2}(1 + \cos^2 2\theta_1 \cos^2 2\theta_2), \quad (6)$$

where θ_1 is the diffraction angle of the specimen crystal, and θ_2 is the diffraction angle of the monochromator crystal.

When the monochromator is set before the specimen crystal, (3), *i.e.* equation (A14) or (A15), gives the polarization factor. However, the expression (5) or (6) should be used as the polarization factor when the monochromator is set after the specimen crystal.

Reference

AZAROFF, L. V. (1955). *Acta Cryst.* **8**, 701–704.

Notes and News

Acta Cryst. (1982). **A38**, 288

Seventh European Crystallographic Meeting Book of Abstracts

The Seventh European Crystallographic Meeting will take place in Jerusalem, Israel, from 29 August to 3 September 1982. The Book of Abstracts will be available to non-participants at a price of US\$18.00 including airmail postage. Orders, which must include the words 'Book of

Abstracts', should be sent, no later than 1 July 1982, to ECM-7, PO Box 29313, 61292 Tel Aviv, Israel. Either a cheque payable to ECM-7 should accompany the order or payment should be made by bank transfer to ECM-7, Israel Discount Bank, 4 Rothschild Blvd., 66881 Tel Aviv, Account No. 343900.

For further information on the meeting write to ECM-7, PO Box 29313, Tel Aviv 61292, Israel.

Book Review

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.

Acta Cryst. (1982). **A38**, 288

История кристаллографии. I: С древнейших времен до начала XIX столетия, II: XIX век. И. И. ШАФРАНОВСКИЙ. (A history of crystallography.

I: From earliest times to the beginning of the nineteenth century; II: In the nineteenth century. By I. I. SHAFRANOVSKII.) Pp. 296 (Vol. I), pp. 324 (Vol II). Leningrad: Nauka, 1978 (Vol. I), 1980 (Vol. II). Price 2r 50k (Vol. I), 2r 40k (Vol. II).

These two volumes (in Russian) contain a comprehensive account of the development of the science of crystals from the earliest times until 1912. They are a pleasure to read – in contrast to the often very difficult writings of the great figures themselves. Professor Shafranovskii is immersed in European culture (he gives his own translations from the *Odyssey*) and he puts life and colour into many prominent people who were otherwise mere names (Capeller, Gadolin, Wollaston, V. Goldschmidt, Steno, Romé de L'Isle, to name only a few). The personalities are treated in their own intellectual and physical surroundings and retrospective nationalism is

absent. The introduction discusses the relationship of crystallography to other sciences and raises contemporary questions about its development in modern times.

Shafranovskii quotes extensively from previous historians of crystallography [Carl Marx, author of *Geschichte der Kristallkunde*, Karlsruhe and Baden (1825), and H. Metzger, *La Genèse de la Science des Cristeaux*, Paris (1918)] stimulating his readers to look back to them. He follows their lead in passing from organising the material first around the gifted individuals and then in later periods around the main topics, such as mathematical crystallography, crystal physics and crystal chemistry, with individuals in a more subordinate role as the subject of crystallography gathered momentum.

A. L. MACKAY

*Department of Crystallography
Birkbeck College
London WC1E 7HX
England*