

with the lower full line in Fig. 2(b). It may be pointed out that the intercept at  $\theta_c = 0^\circ$ , i.e.  $t = 0$ , can only be zero if  $(\Delta\lambda/\lambda) = 0$ , which contradicts the basis of the model in Fig. 4 of R93. Recognition and estimation of this component,  $|\Delta\theta_M|$ , is therefore advisable as a fundamental step in establishing the wavelength-dispersion component for (a) determining the scan range and (b) the modelling of one-dimensional profiles of Bragg reflections when one is aiming at careful single-crystal synchrotron-radiation studies.

In respect of the non-zero status of  $|\Delta\omega_\lambda|$  at  $\theta_c = 0^\circ$ , reference may be made to Willis (1960), which deals with a somewhat similar situation involving an extended-face crystal rather than a small specimen crystal (see also Mathieson, 1988).

### 6. Mosaic distribution

Nearly 20 years ago, Boehm, Prager & Barnea (1974) demonstrated experimentally with Si that the structure (inner morphology) of a ground spherical single crystal corresponded to a 'perfect' core and an 'imperfect' outer skin. Subsequently, Le Page & Gabe (1978) used this model to refine structural parameters from ground spherical crystals. This approach was tested in respect of three crystals. Application of this approach requires, in principle, at least three parameters, two to describe the mosaic distributions and a weight factor for the relative amounts of the two components.

In R93, a simpler approach is taken in that only one parameter,  $\eta$ , is allowed to represent an average mosaic distribution and that is derived [equation (13) in R93] by averaging the fit of measured FWHM with FWHM calculated according to equations (6a), (6b) and (6c) in R93. If the application of equations (6a), (6b) and (6c) is not strictly valid, see §§3 and 4 above, then further steps based on these equations become questionable.

It would be more direct to establish mosaic-distribution estimates from experimental measures rather than mathematical operations involving a number of probably interacting parameters. As is indicated by Fig. 1(a), direct estimate in  $\Delta\omega, \Delta 2\theta$  space of even a limited number of reflections could yield useful information on the distribution of  $\mu (= \eta)$ . See, for example, the fragment distribution shown in Mathieson (1982)

and the anisotropic distributions in Mathieson & Stevenson (1986).

In the concluding remarks in R93, Rossmannith points to 'varying - and therefore unknown - mosaic structure' and links this with the 'difficulty of obtaining integrated intensities with sufficient accuracy using synchrotron radiation...'. There is no reason to imply that this information concerning mosaic structure is difficult to achieve. It is possible, if time-consuming, to establish reasonably detailed information on mosaic distributions using  $\Delta\omega, \Delta 2\theta$  techniques (see references above).

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### Restructuring of the IUCr editorial office

Following the promotion of Mr Michael Dacombe from Technical Editor to Executive Secretary, it was considered an opportune time to restructure the editorial office to reflect better the greater variety of work now carried out and to clarify the responsibilities of the staff.

Mr Peter Strickland has been appointed as Managing Editor with overall responsibility for both the technical editing and the centralized checking. Mrs Sue King has been appointed as Technical Editor. Dr Amanda Berry has been appointed as Assistant Technical Editor with special responsibility for the centralized checking. There are three Senior Editorial Assistants and six Editorial Assistants. Mr Brian McMahon is the Research and Development Officer and his assistant is Dr M. Hoyland. The total number of graduate staff in the editorial office is 14.