mined by the pre-monochromator collimation or emittance of the synchrotron. The main approximation made in the derivations is the Gaussian approximation. This is certainly satisfactory for mosaic monochromators or analysers, and is at least a reasonable approximation for perfect crystals close to the centre of the resolution function. The effects of non-Gaussian tails are important in some experiments, as discussed, for example, by Ryan (1986).

One aspect of the results which has not been considered is the effect for a conventional source of a doublet such as Cu $K\alpha_1$ and $K\alpha_2$. The effect of this and its elimination has been discussed (Ryan, 1986) and the splitting between the peaks along $\mathbf{Q}_0$ is illustrated in Fig. 5. Clearly this splitting is much smaller than the longitudinal resolution Δ_x for small $\mathbf{Q}_0$ and with a graphite monochromator and analyser, but at large $\mathbf{Q}_0$ the resolution function will be two-peaked. This is clearly undesirable and resolution corrections are most readily made under conditions in which the $K\alpha_1$ and $K\alpha_2$ beams can be separated.

In § 3 we discussed the effect of the analyser on measurements of the intensity. We were able to show that for samples with zero mosaic spread the intensity is simply dependent upon the angles if the intensity is measured by varying the wave-vector transfer parallel to $\mathbf{Q}_0$ through the Bragg reflection. Any other path gives results which are a complicated function of the angle of scattering and of the resolution, and these effects are illustrated in Figs. 9 and 10. An alternative, and in practice the only satisfactory approach for mosaic crystals, is a two-dimensional scan of the wave vector over the Bragg reflection to give an adequate measure of the structure. In both cases, however, corrections for thermal diffuse scattering *etc.* must be re-evaluated.

Similar considerations apply to the measurement of the intensity of rods of scattering from surfaces and interfaces. The intensities are best measured by scanning the wave vector perpendicular to the rods to obtain the integrated intensity. This is then directly proportional to the scattering power of the rod.

Although the resolution was evaluated with the assumption that the monochromator was a single monochromator, the formalism is readily extended to cope with double monochromators and asymmetrically cut monochromators. It is hoped that the expressions derived above will be useful in the interpretation of experimental results. We are planning a series of measurements to test the formalism and the usefulness of the Gaussian approximation for the central part of the resolution function and the results will be published in due course.

I am grateful for many discussions of the resolution of triple-crystal diffractometers with T. Ryan, R. J. Nelmes, P. J. Mitchell and S. Bates. Financial support was provided by the Science and Engineering Research Council.

References

ANDREWS, S. R. & COWLEY, R. A. (1985). *J. Phys. C*, **18**, 6427–6439.
ANDREWS, S. R. & COWLEY, R. A. (1986). *J. Phys. C*, **19**, 615–635.
AXE, J. D. & HASTINGS, J. B. (1983). *Acta Cryst.* A**39**, 593–594.
BJERRUM-MØLLER, H. & NIELSEN, M. (1970). *Instrumentation for Neutron Inelastic Scattering Research*, pp. 49–76. Vienna: International Atomic Energy Agency.
CHESSER, N. J. & AXE, J. D. (1973). *Acta Cryst.* A**29**, 160–169.
COOPER, M. J. & NATHANS, R. (1967). *Acta Cryst.* **23**, 357–367.
COWLEY, R. A. & RYAN, T. (1987). *J. Phys. D*, **20**, 61–68.
PYNN, R., FUJII, Y. & SHIRANE, G. (1983). *Acta Cryst.* A**39**, 38–46.
ROBINSON, I. K. (1986). *Phys. Rev. B*, **33**, 3830–3836.
ROBINSON, I. K., WASKIEWICZ, W. K., TENG, R. T. & BOHR, J. (1986). *Phys. Rev. Lett.* **57**, 2714–2717.
RYAN, T. (1986). PhD Thesis. Edinburgh Univ., Scotland.
STEDMAN, R. (1968). *Rev. Sci. Instrum.* **39**, 878–883.
ZACHARIASEN, W. H. (1945). *Theory of X-ray Diffraction in Crystals*. New York: Wiley.

International Union of Crystallography

Acta Cryst. (1987). A**43**, 836–838

International Tables for Crystallography Volume A: *Space-Group Symmetry*

Second, revised edition

The second, revised edition of *International Tables for Crystallography*, Volume A: *Space-Group Symmetry* (1987) has recently been published by D. Reidel Publishing Company, PO Box 17, 3300 AA Dordrecht, The Netherlands. The present edition is considerably revised and new material has been added. Improvements include: new diagrams for the 17 plane groups and for the 25 trigonal space groups; the incorporation of two new sections, 8.3.6 and 15, on normalizers of space groups; and a revised *Subject Index*. All changes and additions are detailed in the 'Foreword to the Second, Revised Edition'.

A number of errors were found in the first edition and a list of errata is given below. These errata and the pagination used refer to the First Edition (1983) and to the Reprinted First Edition (1984) and are in addition to those published in *Acta Cryst.* (1984), A**40**, 485. All errata, except those marked, have been corrected in the Second, Revised Edition (1987).

Purchasers of the first edition may obtain free reprints of the new sections 8.3.6 and 15 from The Technical Editor, International Union of Crystallography, 5 Abbey Square, Chester CH1 2HU, England.

Errata in First Edition (1983, 1984)

Page

14 Right-hand column, line 9, change "second" to "further".

15 Left-hand column, line −5, change "1930" to "1929".

21 Left-hand column, line −23, change "rotation" to "tilt".
Right-hand column, line 12, change "second" to "further".
Right-hand column, line 13, change "a space group" to "a centrosymmetric space group".

23 Left-hand column, lines 10, 11, 17, change all p_i to x_i.

24 Right-hand column, line 9, add "(hexagonal axes)".

28 Table 2.13.2, column 6, for $0kl$ reflections change "Monoclinic (a unique)" to "Monoclinic (a unique), tetragonal" and change "Orthorhombic, tetragonal, cubic" to "Orthorhombic, cubic"; analogous changes should be made for $h0l$ and $hk0$ reflections.

29 Right-hand column, line 5, change "A" to "A and B".
Right-hand column, line −5, change "*additional reflection conditions*" to "in addition *structural absences*".

35 Right-hand column, line −19, change "[*cf. Section* 2.6(iv)]" to "[*for orthorhombic settings cf. Section* 2.6(iv)]".

36 Left-hand column, line −9, change "The nine" to "Six of the nine".

37 Table 2.16.2, heading, change "*settings*" to "*glide planes*".
Left-hand column, line −23, change "standard symbol" to "standard short symbol".

38 Right-hand column, line 33, change "1930" to "1929".

50 Right-hand column, line 10, change "$\frac{1}{3}, \frac{2}{3}, z$" to "$\frac{2}{3}, \frac{1}{3}, z$".

56 Table 4.3.1 (*cont.*), column 4, space group 12, change "$A1\frac{2}{m}$" to "$A1\frac{2}{m}1$".

60 Left-hand column, lines −23 and −24, change "$P2_1\,2\,2(51)$" to "$P2_1/m\,2/m\,2/a\,(51)$".
mma
Right-hand column, line 13, change "$(P2/c)$" to "$(P2_1/c)$".

61 Right-hand column, Table 4.3.1 (*cont.*), column 6, space group 125, change "$C4/amg_1$" to "$C4/amg_1$".
bg bb

63 Left-hand column, line −15, change "$C4_2/m\,cd$" to "$C4_2/m\,cg_1$".

65 Right-hand column, line 3, change "$R\bar{3}c$" to "$R3c$".

67 Left-hand column, line −7, change "Section 11.1" to "Section 11.2".

70 Left-hand column, line −12, change "(3×1)" to "(1×3)".
Left-hand column, line −11, change "(1×3)" to "(3×1)".

73 Right-hand column, line −23, change "metric tensor" to "*metric tensor*".

74 Right-hand column, line 8, change "$\mathbf{b}' = -\mathbf{a}+\mathbf{b}'$" to "$\mathbf{b}' = -\mathbf{a}+\mathbf{b}$".

*78 Table 5.1 (*cont.*), column 1, line 13, change "primite" to "primitive".

298 Top-left diagram, add arrow for twofold axis at upper-left position.

*470 Line −10, change "$P4/nbc$" to "$P4_2/nbc$".

533 Last line, change "$(c'=c)$" to "$(2c'=c)$".

695 Position 192 h 1, coordinates, entry (29), change "$z+\frac{3}{4}$" to "$\bar{z}+\frac{3}{4}$".

712 Right-hand column, line 20, change "*metric*" to "*metrics*".

721 Right-hand column, line −6, change "*Defintion*" to "*Definition*".

726 Left-hand column, line 13, change "1127" to "1128".

730 Right-hand column, line 28, change "FEDEROV" to "FEDOROV".
Right-hand column, line −3, add to reference "[Reprint: Weisbaden: Sändig (1973).]".

735 Left-hand column, line 1, change "$\frac{2}{3}, \frac{1}{3}, \frac{1}{3}$ and $\frac{1}{3}, \frac{2}{3}, \frac{2}{3}$" to "0, 0, 0, $\frac{2}{3}, \frac{1}{3}, \frac{1}{3}$ and $\frac{1}{3}, \frac{2}{3}, \frac{2}{3}$".

*739 Table 9.2.2 (*cont.*), column 3, entry cI, change "$\alpha = \beta = \gamma$" to "$\alpha = \beta = \gamma = 109.5°$".

742 Table 9.3.1, column 8, No. 18, change "$0\bar{1}1/1\bar{1}\bar{1}/110$" to "$0\bar{1}1/1\bar{1}\bar{1}/100$".
Table 9.3.1, column 7, No. 43, change "mC" to "mI".

746 Left-hand column, line 11, change "Table 11.2" to "Tables 11.2 and 11.3".

753 Table 10.2.2 (*cont.*), tetragonal system, $\bar{4}$, tetragonal prism, change "$(h\bar{k}0)$ $(\bar{h}k0)$" to "$(k\bar{h}0)$ $(\bar{k}h0)$".

755 Right-hand column, lines 7 and 8, change "$\mathfrak{E}$" to "$\mathfrak{C}$".

756 Left-hand column, lines 14, 17, 19, 28 change "$\mathfrak{E}$" to "$\mathfrak{C}$".

779 Left-hand column, matrix for $Y^4 = Y^{-1}$, top right element, change "G" to "$-G$".
Right-hand column, footnote, line 1, change "$\tau = 2G = 1.618$" to "$\tau = 2G = 2g+1 = 1.618034$".

783 Right-hand column, line −21, change "Section 3.2" to "Section 3.3".

785 Right-hand column, line 28, change "on the symmetry" to "on the point symmetry".

786 Table 10.6.1, column 5, cubic, line 3, change "Dyakisdodecahedral" to "Didodecahedral".
Table 10.6.1, column 5, cubic, line 7, change "Hexakisoctahedral" to "Hexakistetrahedral".

790 Left-hand column, line 6, change "$(\boldsymbol{W}, \boldsymbol{x})$" to "$(\boldsymbol{W}, \boldsymbol{w})$".

807 Right-hand column, line −9, change "Leipzig: Borntraeger." to "Leipzig: Teubner. [Reprint: Berlin: Springer (1984).]".

810 Left-hand column, line 24, change "$|\mathrm{Det}\boldsymbol{S}|$" to "$|\det(\boldsymbol{S})|$".
Right-hand column, top equation, add "(3)".

811 Right-hand column, line −11, change "*Triclinic groups*" to "*Triclinic system*".

812 Left-hand column, line −2, change "$P4/mmc$" to "$P4/mcc$".

813 Left-hand column, lines 6 and 7, change "2×2" and "2×1" to "(2×2)" and "(2×1)".

814 Left-hand column, line −9, change "of $P1(p1)$" to "of $P1$ and $p1$".

823 Table 14.1, central column, line −4, change "$*P4gm\ d$" to "$*p4gm\ d$".

*Changes not incorporated in the second, revised edition.

844 Table 14.3, column 1, row 3, change "v_D" to "^vD". Left-hand column, lines 2 and 3, change "the Wyckoff letter (column 1), the multiplicity (column 2)" to "the Wyckoff letter (column 2), the multiplicity (column 1)".
850 Left-hand column, line 17, change "*Auslöchungen*" to "*Auslöschungen*".
851 Right-hand column, line −30, change "(Table 14.3, 845" to "(Table 14.3), 845".
851 Right-hand column, line −21, change "Laue class symmetry)" to "Laue class and symmetry".
852 Right-hand column, line −20, change "Priority rule, 50, 806" to "Priority rule, 52, 806".

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The Executive Committee of the International Union of Crystallography is pleased that it has not been necessary to increase the subscription rates and the prices of back numbers for *Acta Crystallographica* and *Journal of Applied Crystallography* as from 1 January 1988. This is the fifth consecutive year for which prices have remained constant.

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