2.6.2 (*cont.*)

Knop, W., Nierhaus, K. H., Nowotny, V., Niinikoski, T. O., Krumpolc, M., Rieubland, J. M., Rijlart, A., Schärpf, O., Schink, H.-J., Stuhrmann, H. B. & Wagner, R. (1986). *Polarised neutron scattering from dynamic polarised targets of biological origin*. *Helv. Phys. Acta*, **59**, 741–746.

Kostorz, G. (1979). *Small-angle scattering and its applications to materials science*. *Treatise on materials science and technology,* Vol. 15, edited by G. Kostorz, pp. 227–289. New York: Academic Press.

Kostorz, G. (1988). *Small-angle neutron scattering – metallurgical applications*. *Materials science forum,* Vols. 27/28, edited by M. M. Elcombe & T. J. Hicks, pp. 325–344. Aedermannsdorf, Switzerland: Trans Tech Publications.

Kratky, O. & Worthmann, W. (1947). *Über die Bestimmbarkeit der Konfiguration gelöster organischer Moleküle durch interferometrische Vermessung mit Röntgenstrahlen*. *Monatsh. Chem.* **76**, 263–281.

Lindner, P., May, R. P. & Timmins, P. A. (1992). *Upgrading the SANS instrument D11 at the ILL*. *Physica (Utrecht)*, B**180–181**, 967–972.

Lindner, P. & Oberthür, R. C. (1985). *Shear induced deformation of polystyrene coils in dilute solution from small angle neutron scattering. 1. Shear gradient apparatus and first results*. *Colloid Polym. Sci.* **263**, 443–453.

Lindner, P. & Oberthür, R. C. (1988). *Shear-induced deformation of polystyrene coils in dilute solution from small angle neutron scattering. 2. Variation of shear gradient, molecular mass and solvent viscosity*. *Colloid Polym. Sci.,* **263**, 443–453.

Luzzati, V., Tardieu, A., Mateu, L. & Stuhrmann, H. B. (1976). *Structure of human serum lipoprotein in solution. I. Theory and techniques of an X-ray scattering approach using solvents of variable density*. *J. Mol. Biol.* **101**, 115–127.

May, R. P., Ibel, K. & Haas, J. (1982). *The forward scattering of cold neutrons by mixtures of light and heavy water*. *J. Appl. Cryst.* **15**, 15–19.

May, R. P. & Nowotny, V. (1989). *Distance information derived from neutron low-Q scattering*. *J. Appl. Cryst.* **22**, 231–237.

Moore, P. B. (1980). *Small-angle scattering. Information content and error analysis*. *J. Appl. Cryst.* **13**, 168–175.

Nierhaus, K. H., Lietzke, R., May, R. P., Nowotny, V., Schulze, H., Simpson, K., Wurmbach, P. & Stuhrmann, H. B. (1983). *Shape determination of ribosomal proteins in situ*. *Proc. Natl Acad. Sci. USA*, **80**, 2889–2893.

Pavlov, M. Yu. & Serdyuk, I. N. (1987). *Three-isotropic substitutions method in small-angle neutron scattering*. *J. Appl. Cryst.* **20**, 105–110.

Pedersen, J. S., Posselt, D. & Mortensen, K. (1990). *Analytical treatment of the resolution function for small-angle scattering*. *J. Appl. Cryst.* **23**, 321–333.

Porod, G. (1951). *Die Röntgenkleinwinkelstreuung von dichtgepackten kolloiden Systemen*. *Kolloid Z.* **124**, 83–114.

Porod, G. (1982). *General theory*. *Small-angle X-ray scattering,* edited by O. Glatter & O. Kratky, pp. 17–51. London: Academic Press.

Salva-Ghilarducci, A., Simon, J. P., Guyot, P. & Ansara, I. (1983). *Precipitation in ternary Al–Zn–Ag alloys studied by isotropic contrast in neutron small angle scattering*. *Acta Metall.* **31**, 1705–1713.

Schelten, J. & Hossfeld, F. (1971). *Application of spline functions to the correction of resolution errors in small-angle scattering*. *J. Appl. Cryst.* **4**, 210–223.

Stuhrmann, H. B. (1970). *Interpretation of small-angle scattering functions of dilute solutions and gases. A representation of the structures related to a one-particle-scattering function*. *Acta Cryst.* A**26**, 297–306.

Stuhrmann, H. B., Haas, J., Ibel, K., de Wolf, B., Koch, M. H. J., Parfait, R. & Crichton, R. R. (1976). *New low resolution model for 50S subunit of Escherichia coli ribosomes*. *Proc. Natl Acad. Sci. USA*, **73**, 2379–2383.

Stuhrmann, H. B. & Kirste, R. G. (1965). *Elimination der intrapartikulären Untergrundstreuung bei der Röntgenkleinwinkelstreuung an kompakten Teilchen (Proteinen)*. *Z. Phys. Chem. Neue Folge,* **46**, 247–250.

Stuhrmann, H. B., Schärpf, O., Krumpolc, M., Niinikoski, T. O., Rieubland, M. & Rijllart, A. (1986). *Dynamic nuclear polarisation of nuclear matter*. *Eur. Biophys. J.* **14**, 1–6.

Timmins, P. A. & Zaccai, G. (1988). *Low resolution structures of biological complexes studied by neutron scattering*. *Eur. Biophys. J.* **15**, 257–268.

Wignall, G. D. (1987). *Neutron scattering*. *Encyclopedia of polymer science and engineering,* Vol. 10, 2nd ed., edited by J. I. Kroschwitz, pp. 112–184. New York: John Wiley.

Wignall, G. D. & Bates, F. S. (1987). *Absolute calibration of small-angle neutron scattering data*. *J. Appl. Cryst.* **20**, 28–40.

Wignall, G. D., Christen, D. K. & Ramakrishnan, V. (1988). *Instrumental resolution effects in small-angle neutron scattering*. *J. Appl. Cryst.* **21**, 438–451.

Witz, J. (1983). *Contrast variation of the small-angle neutron scattering of globular particles: the influence of hydrogen exchange*. *Acta Cryst.* A**39**, 706–711.

Zaccai, G. & Jacrot, B. (1983). *Small angle neutron scattering*. *Annu. Rev. Biophys. Bioeng.* **12**, 139–157.

Zaccai, G., Wachtel, E. & Eisenberg, H. (1986). *Solution structure of halophilic malate dehydrogenase from small-angle neutron and X-ray scattering and ultracentrifugation*. *J. Mol. Biol.* **190**, 97–106.

2.7

Allinson, N. M. (1994). *Development of non-intensified charge-coupled device area X-ray detectors*. *J. Synchrotron Rad.* **1**, 54–62.

Allinson, N. M., Allsopp, D. W. E., Quayle, J. A. & Magorrian, B. G. (1991). *Effects of soft X-ray irradiation on solid-state imagers*. *Nucl. Instrum. Methods*, A**310**, 267–272.

Armstrong, R. W. & Wu, C. C. (1973) *X-ray diffraction microscopy*. *Tools and techniques for microstructural analysis*, edited by J. L. McCall & W. M. Mueller, pp. 169–219. New York: Plenum.

Arndt, U. W. (1986). *X-ray position-sensitive detectors*. *J. Appl. Cryst.* **19**, 145–163.

Arndt, U. W. (1990). *X-ray television area detectors*. *Synchrotron Radiat. News*, **3**, 17–22.

Authier, A. (1961). *Etude de la transmission anormale des rayons X dans des cristaux de silicium. I. Case des cristaux parfaits*. *Bull. Soc. Fr. Minéral. Cristallogr.* **84**, 51–89.

2.7 (*cont.*)

Authier, A. (1970). *Ewald waves in theory and experiment (dynamical theory of X-ray diffraction). Advances in structure research by diffraction methods*, Vol. 3, edited by R. Brill & R. Mason, pp. 1–51. Oxford: Pergamon Press.

Authier, A. (1977). *Section topography. X-ray optics. Applications to solids*, edited by H.-J. Queisser, Chap. 5, pp. 145–189. Berlin: Springer.

Barrett, C. S. (1945). *A new microscopy and its potentialities. Trans. Am. Inst. Min. Metall. Pet. Eng.* **161**, 15–64.

Barth, H. & Hosemann, R. (1958). *Anwendung der Parallelstrahlmethode in Durchstrahlungsfall zur Prüfung des Kristallinneren mit Röntgen-Strahlen. Z. Naturforsch. Teil A*, **13**, 792–794.

Batterman, B. W. & Cole, H. (1964). *Dynamical diffraction of X-rays by perfect crystals. Rev. Mod. Phys.* **36**, 681–717.

Bauspiess, W., Bonse, U., Graeff, W. & Rauch, H. (1977). *A bicrystal monochromator of moderate wavelength resolution for use with X-rays or thermal neutrons. J. Appl. Cryst.* **10**, 338–343.

Beaumont, J. H. & Hart, M. (1974). *Multiple Bragg reflection monochromators for synchrotron X radiation. J. Phys. E,* **7**, 823–829.

Berg, W. F. (1931). *Über ein röntgenographische Methode zur Untersuchung von Gitterstörungen an Kristallen. Naturwissenschaften*, **19**, 391–396.

Boettinger, W. J., Burdette, H. E. & Kuriyama, M. (1979). *X-ray magnifier. Rev. Sci. Instrum.* **50**, 26–30.

Bond, W. L. & Andrus, J. (1952). *Structural imperfections in quartz crystals. Am. Mineral.* **37**, 622–632.

Bonse, U. & Fischer, K. (1981). *The new multi-purpose two-axis diffractometer for synchrotron X-rays at DORIS. Nucl. Instrum. Methods*, **190**, 593–603.

Bonse, U. & Graeff, W. (1977). *X-ray and neutron interferometry. X-ray optics. Applications to solids*, edited by H.-J. Queisser, Chap. 4, pp. 93–143. Berlin: Springer.

Bonse, U. & Hart, M. (1965*a*). *Tailless X-ray single-crystal reflection curves obtained by multiple reflection. Appl. Phys. Lett.* **7**, 238–240.

Bonse, U. & Hart, M. (1965*b*). *An X-ray interferometer. Appl. Phys. Lett.* **6**, 155–158.

Bonse, U. & Hart, M. (1966). *Moiré patterns of atomic planes obtained by X-ray interferometry. Z. Phys.* **190**, 455–467.

Bonse, U. & Kappler, E. (1958). *Röntgenographische Abbildung des Verzerrungsfeldes einzelner Versetszungen in Germanium-Einkristallen. Z. Naturforsch. Teil A*, **13**, 348–349.

Bonse, U., Materlik, G. & Schröder, W. (1976). *Perfect-crystal monochromators for synchrotron X-radiation. J. Appl. Cryst.* **9**, 233–230.

Bonse, U., Olthoff-Münter, K. & Rumpf, A. (1983). *Monolithic double-grooved-crystal monochromators with tunable harmonic supression for neutrons and X-rays. J. Appl. Cryst.* **16**, 524–531.

Bowen, D. K., Clark, G. F., Davies, S. T., Nicholson, J. R. S., Roberts, K. J., Sherwood, J. N. & Tanner, B. K. (1982). *The X-ray topography station at Daresbury Laboratory. Nucl. Instrum. Methods*, **195**, 277–284.

Bowen, D. K. & Davies, S. T. (1983). *The double-crystal X-ray camera at Daresbury Laboratory. Nucl. Instrum. Methods*, **208**, 725–729.

Brádler, J. & Lang, A. R. (1968). *Use of the Ewald sphere in aligning crystal pairs to produce X-ray moiré fringes. Acta Cryst.* A**24**, 246–247.

Castelli, C. M., Allinson, N. M., Moon, K. J. & Watson, D. L. (1994). *High spatial resolution scintillation screens coupled to CCD detectors for X-ray imaging applications. Nucl. Instrum. Methods*, A**348**, 649–653.

Cerva, H. & Graeff, W. (1984). *Contrast investigation of surface acoustic waves by stroboscopic topography. I. Orientation contrast. Phys. Status Solidi A*, **82**, 34–45.

Cerva, H. & Graeff, W. (1985). *Contrast investigation of surface acoustic waves by stroboscopic topography. II. Wavefield deviation contrast. Phys. Status Solidi A*, **87**, 507–516.

Chikawa, J.-I. & Austerman, S. B. (1968). *X-ray double-crystal method of analyzing microstrains with BeO single crystals. Advances in X-ray analysis*, Vol. 11, edited by J. B. Newkirk & G. R. Mallett, pp. 393–400. New York: Plenum.

Chikawa, J.-I. & Fujimoto, I. (1968). *X-ray diffraction topography with a vidicon television image system. Appl. Phys. Lett.* **13**, 387–389.

Chikawa, J.-I., Sato, F. & Fujimoto, I. (1984). *High-resolution topography detector. Acta Cryst.* A**40**, C403.

Compton, A. H. & Allison, S. K. (1935). *X-rays in theory and experiment*. New York: Van Nostrand.

Du Mond, J. W. M. (1937). *Theory of the use of more than two successive X-ray crystal reflections to obtain increased resolving power. Phys. Rev.* **52**, 872–883.

Gerold, V. & Meier, F. (1959). *Der röntgenographische Nachweiss von Versetzungen in Germanium. Z. Phys.* **155**, 387–394.

Guinier, A. & Tennevin, J. (1949). *Sur deux variantes de la méthode de Laue et leurs applications. Acta Cryst.* **2**, 133–138.

Hart, M. (1968). *'Perfect crystals'. A study of their structural defects. Sci. Prog. Oxford*, **56**, 429–447.

Hart, M. (1971). *Bragg reflection X-ray optics. Rep. Prog. Phys.* **34**, 435–490.

Hart, M. (1972). *A complete determination of dislocation Burgers vectors by X-ray interferometry. Philos. Mag.* **26**, 821–831.

Hart, M. (1975*a*). *Synchrotron radiation – its application to high-speed, high-resolution X-ray diffraction topography. J. Appl. Cryst.* **8**, 436–444.

Hart, M. (1975*b*). *Ten years of X-ray interferometry. Proc. R. Soc. London Ser. A*, **346**, 1–22.

Hart, M. (1981). *Bragg angle measurement and mapping. J Cryst. Growth*, **55**, 409–427.

Hart, M. & Rodrigues, A. R. D. (1978). *Harmonic-free single-crystal monochromators for neutrons and X-rays. J. Appl. Cryst.* **11**, 248–253.

Hart, M., Rodrigues, A. R. D. & Siddons, D. P. (1984). *Adjustable resolution Bragg reflection systems. Acta Cryst.* A**40**, 502–507.

Hart, M., Sauvage, M. & Siddons, D. P. (1980). *'White beam' synchrotron X-ray interferometry. Acta Cryst.* A**36**, 947–951.

Hartmann, W. (1977). *Live topography. X-ray optics. Applications to solids*, edited by H.-J. Queisser, Chap. 6, pp. 191–219. Berlin: Springer.

Haruta, K. (1965). *A new method of obtaining stereoscopic pairs of X-ray diffraction topographs. J. Appl. Phys.* **36**, 1789–1790.

Hashimoto, H. & Uyeda, R. (1957). *Detection of dislocation by the moiré pattern in electron micrographs. Acta Cryst.* **10**, 143.

Hashizume, H. (1983). *Asymmetrically grooved monolithic crystal monochromators for suppression of harmonics in synchrotron X-radiation. J. Appl. Cryst.* **16**, 420–427; erratum: **16**, 648.

2.7 (*cont.*)

Hildebrandt, G. (1982). *X-ray wave fields in perfect and nearly perfect crystals – theoretical background and recent applications*. *J. Phys. E*, **15**, 1140–1155.

International Tables for Crystallography (1996). Vol. B. Dordrecht: Kluwer Academic Publishers.

Ishikawa, T., Kitano, T. & Matsui, J. (1985). *Synchrotron plane wave X-ray topography of GaAs with a separate (+, +) monochro-collimator*. *Jpn. J. Appl. Phys. Part 2*, **24**, L968–L971.

Ito, M., Yamaguchi, M. & Oba, K. (1987). *CsI(Na) scintillation plate with high spatial resolution*. *IEEE Trans. Nucl. Sci.* **34**, 401–405.

Jacobs, L. & Hart, M. (1977). *An X-ray topographic study of large crystals for a bent-crystal gamma diffractometer*. *Nucl. Instrum. Methods*, **143**, 319–325.

Jiang, S.-S. & Lang, A. R. (1983). *Stacking fault contrast in X-ray diffraction: a high resolution experimental study*. *Proc. R. Soc. London Ser. A*, **388**, 249–271.

Kato, N. (1974). *X-ray diffraction*, by L. V. Azaroff, R. Kaplow, N. Kato, R. J. Weiss, A. J. C. Wilson & R. A. Young, Chaps. 3–5, pp. 176–438. New York: McGraw–Hill.

Kikuta, S. (1971). *X-ray crystal collimators using successive asymmetric diffractions and their applications to measurements of diffraction curves. II. Type I collimator*. *J. Phys. Soc. Jpn*, **30**, 222–227.

Kikuta, S. & Kohra, K. (1970). *X-ray crystal collimators using successive asymmetric diffractions and their applications to measurements of diffraction curves. I. General considerations on collimators*. *J. Phys. Soc. Jpn*, **29**, 1322–1328.

Kohra, K. (1972). *Dynamical asymmetric diffraction and its applications to X-ray optical systems*. *Proceedings of the VIth International Conference on X-ray Optics and Microanalysis*, edited by G. Shinoda, K. Kohra & T. Ichinokawa, pp. 35–45. Tokyo: University of Tokyo Press.

Kuriyama, M. & Boettinger, W. J. (1976). *On the angular divergence of out-going beams in an asymmetric diffraction geometry*. *Acta Cryst.* A**32**, 511–512.

Kuriyama, M., Boettinger, W. J. & Cohen, G. G. (1982). *Synchrotron radiation topography*. *Annu. Rev. Mater. Sci.* **12**, 23–50.

Lang, A. R. (1957). *A method for the examination of crystal sections using penetrating charactistic radiation*. *Acta Metall.* **5**, 358–364.

Lang, A. R. (1959*a*). *The projection topograph: a new method in X-ray diffraction microradiography*. *Acta Cryst.* **12**, 249–250.

Lang, A. R. (1959*b*). *Studies of individual dislocations in crystals by X-ray diffraction microradiography*. *J. Appl. Phys.* **30**, 1748–1755.

Lang, A. R. (1963). *Applications of 'limited projection topographs' and 'direct beam topographs' in X-ray diffraction topography*. *Br. J. Appl. Phys.* **14**, 904–907.

Lang, A. R. (1968). *X-ray moiré topography of lattice defects in quartz. Nature (London)*, **220**, 652–657.

Lang, A. R. (1974). *On the growth-sectorial dependence of defects in natural diamonds*. *Proc. R. Soc. London Ser. A*, **340**, 233–248.

Lang, A. R. (1978). *Techniques and interpretation in X-ray topography*. *Diffraction and imaging techniques in material science*, 2nd, revised edition, edited by S. Amelinckx, R. Gevers & J. Van Landuyt, pp. 623–714. Amsterdam: North-Holland.

Lang, A. R. (1983). *Compact device for X-ray section topography with synchrotron sources*. *Rev. Sci. Instrum.* **54**, 897–899.

Lang, A. R., Makepeace, A. P. W., Moore, M. & Machado, W. G. (1983). *On the variation of X-ray diffraction contrast with wavelength: a study with synchrotron radiation*. *J. Appl. Cryst.* **16**, 113–125.

Lang, A. R. & Reifsnider, K. (1969). *Rapid X-ray diffraction topography using a high-gain image intensifier*. *Appl. Phys Lett.* **15**, 258–260.

Mai, Z.-H., Mardix, S. & Lang, A. R. (1980). *A high-resolution section topograph technique applicable to synchrotron radiation sources*. *J. Appl. Cryst.* **13**, 180–187.

Materlik, G. & Kostroun, V. O. (1980). *Monolithic crystal monochromators for synchrotron radiation with order sorting and polarising properties*. *Rev. Sci. Instrum.* **51**, 86–94.

Matsushita, T., Kikuta, S. & Kohra, K. (1971). *X-ray crystal collimators using successive asymmetric diffractions and their applications to measurements of diffraction curves. III. Type II collimator*. *J. Phys. Soc. Jpn*, **30**, 1136–1144.

Meieran, E. S., Landre, J. K. & O'Hara, S. (1969). *Direct video imaging of X-ray topographs*. *Appl. Phys. Lett.* **14**, 368–371.

Milne, A. D. (1971). *Scanning source X-ray topography*. *J. Appl. Cryst.* **4**, 251–252.

Nakayama, K., Hashizume, H., Miyoshi, A., Kikuta, S. & Kohra, K. (1973). *Use of asymmetrical dynamical diffraction of X-rays for multiple-crystal arrangements of the* $(n_1, +n_2)$ *setting*. *Z. Naturforsch. Teil. A*, **28**, 632–638.

Newkirk, J. B. (1958). *Method for the detection of dislocations in silicon by X-ray extinction contrast*. *Phys. Rev.* **110**, 1465–1466.

Newkirk, J. B. (1959). *The observation of dislocations and other imperfections by X-ray extinction contrast*. *Trans. TMS–AIME*, **215**, 483–497.

Petroff, J. F., Sauvage, M., Riglet, P. & Hashizume, H. (1980). *Synchrotron-radiation plane-wave topography. I. Application to misfit dislocation imaging in III–V heterojunctions*. *Philos. Mag.* A**42**, 319–338.

Pinsker, Z. G. (1978). *Dynamical scattering of X-rays in crystals*. Berlin: Springer.

Queisser, H.-J., Hartmann, W. & Hagen, W. (1981). *Real-time X-ray topography: defect dynamics and crystal growth*. *J. Cryst. Growth*. **52**, 897–906.

Ramachandran, G. N. (1944). *X-ray topographs of diamond*. *Proc. Indian Acad. Sci. Sect. A*, **19**, 280–292.

Reifsnider, K. & Green, R. E. Jr (1968). *Image intensifier system for dynamic X-ray diffraction studies*. *Rev. Sci. Instrum.* **39**, 1651–1655.

Renninger, M. (1961). *Asymmetrische Bragg-Reflexion am Idealkrystall zur Erhöhung des Doppelspekrometer-Auflösungsvermögens*. *Z. Naturforsch. Teil. A*, **16**, 1110–1111.

Renninger, M. (1965). *Beitrage zur doppeldiffraktometrischen Kristall-Topographic mit Röntgenstrahlen I. Methodik und Ergebnisse typischer Art*. *Z. Angew. Phys.* **19**, 20–33.

Sato, F., Maruyama, H., Goto, K., Fujimoto, I., Shidara, K., Kawamura, T., Hirai, T., Sakai, H. & Chikawa, J.-I. (1993). *Characteristics of a new high-sensitivity X-ray imaging tube for video topography*. *Jpn. J. Appl. Phys.* **32**, 2142–2146.

Schulz, L. G. (1954). *Method of using a fine-focus X-ray tube for examining the surface of single crystals*. *J. Met: Trans. AIME*, **200**, 1082–1083.

Stevels, A. L. N. & Kühl, W. (1974). *New phosphors for X-ray image intensifier tubes*. *Medicamundi*, **19**, 3–7.

2.7 (*cont.*)

Suzuki, S., Ando, M., Hayakawa, K., Nittono, O., Hashizume, H., Kishino, S. & Kohra, K. (1984). *A high-speed X-ray topography camera for use with synchrotron radiation at the photon factory*. *Nucl. Instrum. Methods*, **227**, 584–592.

Tanner, B. K. (1976). *X-ray diffraction topography*. Oxford: Pergamon Presss.

Tanner, B. K. (1977). *Crystal assessment by X-ray topography using synchrotron radiation*. *Prog. Cryst. Growth Charact.* **1**, 23–56.

Tanner, B. K. & Bowen, D. K. (1980). Editors. *Characterization of crystal growth defects by X-ray methods*. New York: Plenum.

Tate, M. W., Eikenberry, E. F., Barna, S. L., Wall, M. E., Lawrance, J. L. & Gruner, S. M. (1995). *A large-format high-resolution area X-ray detector based on a fiber-optically bonded charge-coupled device (CCD)*. *J. Appl. Cryst.* **28**, 196–205.

Tuomi, T., Naukkarinen, K. & Rabe, P. (1974). *Use of synchrotron radiation in X-ray diffraction topography*. *Phys. Status Solidi A*, **25**, 93–106.

Van Mellaert, L. & Schwuttke, G. H. (1972). *Feedback control system for scanning X-ray topography*. *J. Appl. Phys.* **43**, 687–692.

Wallace, C. A. & Ward, R. C. C. (1975). *A high-resolution X-ray topographical technique for thin flexible crystal plates*. *J. Appl. Cryst.* **8**, 281–286.

Whatmore, R. W., Goddard, P. A., Tanner, B. K. & Clark, G. F. (1982). *Direct imaging of travelling Rayleigh waves by stroboscopic X-ray topography*. *Nature (London)*, **299**, 44–46.

2.8

Ando, M. & Hosoya, S. (1972). *Q-switch and polarization domains in antiferromagnetic chromium observed with neutron diffraction topography*. *Phys. Rev. Lett.* **29**, 281–285.

Ando, M. & Hosoya, S. (1978). *Size and behavior of antiferromagnetic domains in Cr directly observed with X-ray and neutron topography*. *J. Appl. Phys.* **49**, 6045–6051.

Baruchel, J. (1989). *The contribution of neutron and synchrotron radiation topography to the investigation of first-order magnetic phase transitions*. *Phase Transit.* **14**, 21–29.

Baruchel, J., Schlenker, M. & Palmer, S. B. (1990). *Neutron diffraction topographic investigations of 'exotic' magnetic domains*. *Nondestr. Test. Eval.* **5**, 349–367

Baruchel, J., Schlenker, M., Zarka, A. & Petroff, J. F. (1978). *Neutron diffraction topographic investigation of growth defects in natural lead carbonate single crystals*. *J. Cryst. Growth*, **44**, 356–362.

Boeuf, A., Lagomarsino, S., Rustichelli, F., Baruchel, J. & Schlenker, M. (1975). *White beam neutron topography*. *Phys. Status Solidi A*, **31**, K91–K93.

Davidson, J. B. & Case, A. L. (1976). *Applications of the fly's eye neutron camera: diffraction tomography and phase transition studies*. Proc. Conf. on Neutron Scattering, ORNL, USERDA CONF 760601–P2, pp. 1124–1135.

Davidson, J. B., Werner, S. & Arrott, A. S. (1974). *Neutron microscopy of spin density wave domains in chromium*. *AIP Conf. Proc.*, edited by C. D. Graham & J. J. Rhyne, Vol. 18, pp. 396–400.

Doi, K., Minakawa, N., Motohashi, H. & Masaki, N. (1971). *A trial of neutron diffraction topography*. *J. Appl. Cryst.* **4**, 528–530.

Dudley, M., Baruchel, J. & Sherwood, J. N. (1990). *Neutron topography as a tool for studying reactive organic crystals: a feasibility study*. *J. Appl. Cryst.* **23**, 186–198.

Hustache, R. (1979). *Sélection de blocs monocristallins dans un cristal de beryllium par topographie neutronique*. *Nucl. Instrum. Methods*, **163**, 151–156.

Malgrange, C., Petroff, J. F., Sauvage, M., Zarka, A. & Englander, M. (1976). *Individual dislocation images and Pendellösung fringes in neutron topographs*. *Philos. Mag.* **33**, 743–751.

Scherm, R. & Fåk, B. (1993). *Neutrons*. In *Neutron and synchrotron radiation for condensed matter studies*, Vol. 1: *Theory, instruments and methods*. *HERCULES (Higher European Research Course for Users of Large Experimental Systems)*, *Grenoble*, edited by J. Baruchel, J. L. Hodeau, M. S. Lehmann, J. R. Regnard & C. Schlenker. Les Ulis: Les Editions de Physique; Berlin: Springer-Verlag.

Schlenker, M., Baruchel, J., Perrier de la Bathie, R. & Wilson, S. A. (1975). *Neutron diffraction section topography: observing crystal slices before cutting them*. *J. Appl. Phys.* **46**, 2845–2848.

Schlenker, M. & Shull, C. G. (1973). *Polarized neutron techniques for the observation of ferromagnetic domains*. *J. Appl. Phys.* **44**, 4181–4184.

Sillou, D., Baruchel, J., Kuroda, K., Michalowicz, A., Guigay, J. P. & Schlenker, M. (1989). *First experiments on flipping ratio mapping with the 'multi-PM' position-sensitive detector*. *Physica (Utrecht)*, B**156–157**, 581–583.

Tomimitsu, H., Doi, K. & Kamada, K. (1983). *Neutron diffraction topographic observations of substructures in Cu-based alloys*. *Physica (Utrecht)*, B**120**, 96–102.

2.9

Berk, N. F. & Majkrzak, C. F. (1995). *Using parametric B-splines to fit specular reflectivities*. *Phys. Rev. B*, **51**, 11296–11309.

Boer, D. K. G. de (1994). *Influence of the roughness profile on the specular reflectivity of X-rays and neutrons*. *Phys. Rev. B*, **49**, 5817–5820.

Buttiker, M. (1983). *Larmor precession and the traversal time for tunneling*. *Phys. Rev. B*, **27**, 6178–6188.

Felcher, G. P., Hilleke, R. O., Crawford, R. K., Haumann, J., Kleb, R. & Ostrowski, G. (1987). *Polarized neutron reflectometer: a new instrument to measure magnetic depth profiles*. *Rev. Sci. Instrum.* **58**, 609–619.

Felcher, G. P. & Russell, T. P. (1991). Editors. *Physica (Utrecht)*, B**173**, 1–210.

Hamilton, W. A., Hayter, J. B. & Smith, G. S. (1994). *Neutron reflectometry as optical imaging*. *J. Neutron Res.* **2**, 1–19.

Holy, V., Kubena, J., Ohlidal, I., Lischka, K. & Plotz, W. (1993). *X-ray reflection from rough layered systems*. *Phys. Rev. B*, **47**, 15896–15903.

Majkrzak, C. F. (1991). *Polarized neutron reflectometry*. *Physica (Utrecht)*, B**173**, 75–88.

Majkrzak, C. F., Ankner, J. F., Berk, N. F. & Gibbs, D. (1994) *Magnetic multilayers*, edited by L. H. Bennett & R. E. Watson, pp. 299–354. Singapore: World Scientific.

Merzbacher, E. (1970). *Quantum mechanics*, 2nd ed. New York: John Wiley.