

Powder X-ray Rietveld Studies of $\text{Sr}_2\text{RGaCu}_2\text{O}_7$ (R=Pr, Nd, Sm, Eu, Gd, Dy, Ho, Er, Tm, Yb and Y)

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During the search for high T_c superconductors, various related phases with building blocks of alternating perovskite (ABO_{3-x}) and rock salt (AO) units which result in the general formula $(\text{AO})_m(\text{ABO}_{3-x})_n$ were discovered. One such family is the $\text{Sr}_2\text{R}(\text{M}_{3-x}\text{Cu}_x)\text{O}_7$ series, where R =lanthanides and Y, and M are selected representative and transition elements. When the value of x in $\text{Sr}_2\text{R}(\text{M}_{3-x}\text{Cu}_x)\text{O}_7$ is 1, the structure is known as the 2112 type phase. The detailed structure of these compounds can provide further understanding of the cuprate superconductors.

X-ray Rietveld refinements were conducted on a series of eleven lanthanide phases, $\text{Sr}_2\text{RGaCu}_2\text{O}_7$ (Ga-2112, R=Pr,

Nd, Sm, Eu, Gd, Dy, Ho, Y, Er, Tm, and Yb). Ga-2112 crystallizes in space group $\text{Ima}2$ with lattice parameters and structure that are related to that of $\text{Ba}_2\text{YCu}_3\text{O}_7(213)$. If one considers Ga as substituted for one-third of Cu in $\text{Sr}_2\text{RCu}_3\text{O}_{6+x}$, one will arrive at the formula $\text{Sr}_2\text{RGaCu}_2\text{O}_7$. The relationship of the lattice parameters of $\text{Sr}_2\text{RGaCu}_2\text{O}_7$ to that of $\text{Ba}_2\text{YCu}_3\text{O}_7$ was found to be: $a_{(2112)} \approx 22.8 \text{ \AA} \approx 2 c_{(213)}$, $b_{(2112)} \approx 5.5 \text{ \AA} \approx \sqrt{2} b_{(213)}$, and $c_{(2112)} \approx 5.4 \text{ \AA} \approx \sqrt{2} a_{(213)}$. In $\text{Sr}_2\text{RGaCu}_2\text{O}_7$, instead of square planar CuO_4 units, tetrahedral GaO_4 chains are found running along the c -axis (the diagonal of the basal plane of the $\text{Ba}_2\text{YCu}_3\text{O}_7$ compound) in a zig-zag fashion. Reference patterns for these compounds were prepared by using the Rietveld decomposition technique. The unit cell volume of these compounds in general follows the expected trend of lanthanide contraction. These lattice parameters range from $a=22.9694(3) \text{ \AA}$, $b=5.55081(7) \text{ \AA}$ and $c=5.44743(7) \text{ \AA}$ for R=La, to $a=22.8059(2) \text{ \AA}$, $b=5.46031(5) \text{ \AA}$ and $c=5.37773(5) \text{ \AA}$ for R=Yb.

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Calendar of Meetings

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12–17 June 2000

Fifth International School and Symposium on Synchrotron Radiation in Natural Science. Ustron/Jaszowiec, Poland. Includes, among others, sessions on X-ray absorption, fluorescence, and diffraction; surface and interface studies; and nanocrystals and nanostructures. [Contact: Wojciech M. Kwiatek, ISSRNS2000, Institute of Nuclear Physics, Department of Nuclear Spectroscopy, ul.Radzikowskiego 152, 31-342 Krakow, Poland. Tel: 48 (12) 637 0222 ext 202; Fax: 48 (12)637 1881; E-mail: synchron@castor.if.uj.edu.pl; Info: http://info.ifpan.edu.pl/pelkay/issrns2000/issrns_2000.html].

15–17 June 2000

Ninth Slovenian–Croatian Crystallographic Meeting. Gozd Martuljek, Julian Alps, Slovenia. [Contact: Prof. Dr. Ivan Leban, University of Ljubljana, Faculty of Chemistry and Chemical Technology, Post Office Box 537, 1001 Ljubljana, Slovenia. Tel: 386 (61) 176 0582; Fax: 386 (61) 125 8220; E-mail: ivan.leban@uni-lj.si; Info: <http://rcul.uni-lj.si/~fn01leban/slocro.html>].

26–30 June 2000

Seventh Asia Pacific Conference on Electron Microscopy. Suntec City, Singapore. [Contact: Conference Secretariat 7th APEM, National University of Singapore, Faculty of Medicine, EM Unit (MD5 Level 1), 12 Medical Drive, Singapore 117597, Republic of Singapore. Tel: 65 () 874 3216; Fax: 65 () 776 4971; E-mail: micngml@nus.edu.sg; Info: <http://www.med.nus.edu.sg/micsoc/7apem>].

4–7 July 2000

QSA-11 International Millennium Conference on Quantitative Surface Analysis. Guildford, England, UK. [Contact: Ms. Penny Briggs, School of Mechanical and Materials Engineering, University of Surrey, Guildford, Surrey GU2 5XH, UK. Tel: 44 (1483) 876293; Fax: 44 (1483) 876291; E-mail: p.briggs@surrey.ac.uk; Info: <http://www.surrey.ac.uk/mme/qsas>].

9–13 July 2000

Second Meeting of the International Union of Microbeam Analysis Societies. Kailua/Kona, Hawaii, USA. [Contact: Sharon L. Coe, Lehigh University, Department of Materials

Science and Engineering, 5 East Packer Avenue, Bethlehem, PA 18015-3195, USA. Tel: 1 (610) 758 5133; Fax: 1 (610) 758 4244; E-mail: slc6@lehigh.edu; Info: <http://www.microanalysis.org/iumas2000/iumas2000.html>].

9–14 July 2000

EUREM2000 Twelfth European Congress on Electron Microscopy. Brno, Czech Republic. [Contact: Eurem 2000, Královopolská147, CZ-61264 Brno, Czech Republic. Tel: 420 (5) 4151 4336; Fax: 420 (5) 4151 4337; E-mail: eurem2000@isibrno.cz; Info: <http://www.eurem2000.isibrno.cz>].

10–12 July 2000

ICRS-6 Sixth International Conference on Residual Stresses. Oxford, England, UK. [Contact: Cathy Pearcey, Institute of Materials, 1 Carlton House Terrace, London SW1Y5DB, UK. Tel: 44 (171) 451 7340; Fax: 44 (171) 839 2289; E-mail: cathy_pearcey@materials.org.uk].

15–21 July 2000

ICSM2000 International Conference on Science and Technology of Synthetic Metals. Gastein, Austria. [Contact: ICSM, Physics of Advanced Materials, Institute for Solid State Physics, Technical University Graz, Petersgasse16, A-8010 Graz, Austria. Tel: 49 (316) 873 8468; Fax: 49 (316) 873 8478; E-mail: leising@icsm2000.at; Info: <http://www.icsm2000.at/icsm/index1.html>].

16–22 July 2000

ICAM2000 Sixth International Conference on Applied Mineralogy. Göttingen and Hanover, Germany. [Contact: ICAM2000 Office, Post Office Box 510153, D-30631 Hanover, Germany. Tel: 49 (511) 643 2298; Fax: 49 (511) 643 3685; E-mail: icam2000@bgr.de; Info: <http://www.bgr.de/icam2000>].

17–21 July 2000

SR-2000 Thirteenth National Synchrotron Radiation Conference. Novosibirsk, Russia. Held at the Budker Institute of Nuclear Physics within the Siberian Synchrotron Radiation Centre. Discussions of X-ray optics and X-ray detectors, and of applications in geology, physics, chemistry, and catalysis. [Contact: Executive Secretary M. V. Kuzin, SR-2000 Organizing Committee, Institute of Nuclear Physics, Prospect Lavrentyeva11, Novosibirsk 630090, Russia. Tel: 7 (3832) 394167; Fax: 7 (3832) 342163; E-mail: m.v.kuzin@inp.nsk.su or sr2000@inp.nsk.su].

22–27 July 2000

ACA'00 American Crystallographic Association Annual Meeting. St. Paul, Minnesota, USA. [Contact: Dr. William Gleason, Box 609 MAYO, University of Minnesota, Minneapolis, MN 55455, USA. Tel: 1 (612) 626 2455; Fax: 1 (612) 625 1121; E-mail: bgleason@maroon.tc.umn.edu; Info: <http://hwi.buffalo.edu/ACA/ACA-annual/stpaul/stpaul.html>].

25–29 July 2000

Aperiodic Structures. Nijmegen, The Netherlands. [Contact: T. Janssen, Aperiodic2000, Institute for Theoretical Physics, University of Nijmegen, Toernooiveld, 6525ED Nijmegen, The Netherlands. Tel: 31 (24) 365 2981; Fax: 31 (24) 365 2120; E-mail: www.tvts@sci.kun.nl; Info:<http://www.sci.kun.nl/tvts/aperiodic>].

26–31 July 2000

XAFS XI Eleventh International Conference on X-ray Absorption Fine Structure. Ako, Japan. [Contact: Ms. Keiko Fujita, XAFSXI Conference Secretariat, SPring-8/JASRI, 1-1-1Kouto, Mikazuki, Sayo, Hyogo 679-5198, Japan. Tel: 81 (791) 580909; Fax: 81 (791) 582752; E-mail: xafs11@spring8.or.jp; Info: <http://xafs11.spring8.or.jp>].

31 July–4 August 2000

49th Annual Denver X-ray Conference. Denver, Colorado, USA. Held at the Denver Marriott Tech Center Hotel. [Contact: Denise Flaherty, International Centre for Diffraction Data, 12 Campus Boulevard, Newtown Square, PA 19073-3273, USA. Tel: 1 (610) 325 9814; Fax: 1 (610) 325 9823; E-mail: dxc@icdd.com; Info: <http://www.dxcicdd.com>].

6–11 August 2000

IndabaIII Symmetry and Structure: Symmetry Breaking, Chirality, and Disorder in Molecules and Crystals. Skukuza, Kruger National Park, South Africa. Official language is English; no translation services will be available. [Contact: Ms. Thereza Botha, TechnoConferences, Post Office Box 70251, The Willows 0041, South Africa. Tel: 27 (12) 807 0869; Fax: 27 (12) 807 1699; E-mail: conferences@dectec.co.za; Info: <http://hobbes.gh.wits.ac.za/indaba/index.html>].

13–17 August 2000

Microscopy and Microanalysis 2000. Philadelphia, Pennsylvania, USA. [Contact: MSA Business Office, 7000 West Southwest Highway, Chicago Ridge, IL 60415, USA. Tel: 1 (312) 644 1527; Fax: 1 (312) 644 8557; E-mail: businessoffice@msa.microscopy.com].

13–18 August 2000

ACCGE-12 Twelfth American Conference on Crystal Growth and Epitaxy. Vail, Colorado, USA. [Contact: Tony Gentile, ACCGE-12 Secretariat, Post Office Box 3233, Thousand Oaks, CA 91359-0233, USA. Tel: 1 (805) 492 7047; Fax: 1 (805) 492 4062; E-mail: aagc@lafn.org; Info: <http://www.aml.arizona.edu/aagc/conferences/acgge12index.html>].

21–25 August 2000

SRI2000 7th International Conference on Synchrotron Radiation Instrumentation. Berlin, Germany. On the campus of Technische Universität Berlin. [Contact: SRI2000, Wissenstransfer (WTB3), Technische Universität Berlin, Steinplatz1, D-10623 Berlin, Germany. Tel: 49 (30) 314

21457; Fax: 49 (30) 314 24098; E-mail: kongresse@wtb.tu-berlin.de; Info: <http://sri2000.tu-berlin.de>].

25–31 August 2000

ECM19 19th European Crystallographic Meeting. Nancy, France. [Contact: ECM19, LCM3B-CNRS, Université Henri Poincaré Nancy, B.P. 239, Vandoeuvre-lès-Nancy Cedex 54506, France. Fax: 33 (3) 834 06492; E-mail: ecm19@lcm3b.u-nancy.fr; Info: <http://www.lcm19.u-nancy.fr/ecm19>].

30 August–1 September 2000

4th International Conference on the Analysis of Geological and Environmental Materials. Nancy, France. [Contact: Jean Carignan, CRPG-CNRS, 15 rue Notre-Dame des Pauvres, B.P. 20, Vandoeuvre-lès-Nancy Cedex 54501, France. Tel: 33 (3) 835 94217; Fax: 33 (3) 835 11798; E-mail: geoanalysis-2000@crpg-cnrs-nancy.fr].

31 August–1 September 2000

Advances in Texture Analysis of Polycrystalline Materials. Metz, France. A satellite meeting of ECM19. [Contact: J. J. Heizmann, URA2090, LETAM, Université de Metz, Ile du Saulcy, 57045 Metz, France. Tel: 33 (3) 873 15399; Fax: 33 (3) 873 15388; E-mail: heizmann@letam.sciences.univ-metz.fr; Info: <http://www.lcm3b.u-nancy.fr/ecm19>].

31 August–2 September 2000

Surface Crystallography. Nancy, France. A satellite meeting of ECM19. [Contact: Philippe Mangin, LPM Faculté des Sciences, UPH, Vandoeuvre-lès-Nancy, France. Tel: 33 (3) 839 12508; Fax: 33 (3) 839 12083; E-mail: mangin@ips.u-nancy.fr; Info: <http://www.lcm3b.u-nancy.fr/ecm19>].

3–8 September 2000

Goldschmidt2000: An International Conference for Geochemistry. Oxford, England, UK. [Contact: Goldschmidt2000, Cambridge Publications, Post Office Box 27, Cambridge CB1 4GL, UK. Tel/Fax: 44 (1223) 333428; E-mail: gold2000@campublic.co.uk; Info: <http://www.campublic.co.uk/science/conference/gold2000>].

4–7 September 2000

XVIII CAC 18th Conference on Applied Crystallography. Wisla, Poland. **An International Workshop on the Ritveld Method** follows at the same site, 7–9 September. The town of Wisla is situated on the Vistula (Wista) River about 80 km south of Katowice. [Contact: Dr. Danuta Stróu, University of Silesia, Institute of Physics and Chemistry of Metals, ul.Bankowa12, 40-007 Katowice, Poland. Tel/Fax: 48(32)596929; E-mail: dana@us.edu.pl; Info: <http://www.us.edu.pl/universytet/konferencje/2000/cac>].

13–15 September 2000

XTOP-2000 Fifth Biennial Conference on High Resolution X-ray Diffraction and Topography. Ustron/Jaszowiec, Poland. Includes, among other topics, ‘‘applications in characterization of materials during and after technological pro-

cesses.’’ [Contact: Ms. Halina Granat, XTOP-2000, Institute of Physics, Polish Academy of Sciences, al. Lotników32/46, 02-668 Warsaw, Poland. Tel: 48 (22) 843 6034; Fax: 48 (22) 843 0926; E-mail: synchro@ifpan.edu.pl; Info: <http://info.ifpan.edu.pl/xtop2000.html>].

13–16 September 2000

Second International Conference on Inorganic Materials. Santa Barbara, California, USA. Covering electronic materials, structural materials and ceramics, biomaterials, intermetallics, and catalytic and porous materials. [Contact: Sarah Wilkinson, Elsevier Science, Ltd., The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, UK. Tel: 44 (1865) 843691; Fax: 44 (1865) 843958; E-mail: sm.wilkinson@elsevier.co.uk; Info: <http://www.elsevier.com/homepage/sag/im2000>].

22–30 September 2000

27th Annual Conference of Federation of Analytical Chemistry and Spectroscopy Societies. Nashville, Tennessee, USA. [Contact: Cindi Lilly, FACSS, 1201 Don Diego Avenue, Santa Fe, NM 87505, USA. Tel: 1 (505) 820 1648; Fax: 1 (505) 989 1073; E-mail: jsjoberg@trail.com; Info: <http://facss.org/info.htm>].

24–29 September 2000

78.Jahrestagung der Deutschen Mineralogischen Gesellschaft. Heidelberg, Germany. [Contact: Eva-Katharina Scharowski, DMG2000, Mineralogisches Institut, Universität Heidelberg, Im Neuenheimer Feld236, D-69120 Heidelberg, Germany. Tel: 49 (6221) 548207; Fax: 49 (6221) 544805; E-mail: kscharow@min.uni-heidelberg.de; Info: <http://www.min.uni-heidelberg.de/dmg2000>].

5–6 October 2000

Materials and their Investigation with Neutrons and Synchrotron Radiation. Villigen, Switzerland. The joint annual meeting of the Swiss Society of Crystallography and the Swiss Neutron Scattering Society. [Contact: Schweizerische Gesellschaft für Neutronenstreuung, Laboratorium für Neutronenstreuung, ETHZ&PSI, CH-5232 Villigen PSI, Switzerland. Tel: 41 (56) 310 2518; Fax: 41 (56) 310 2939; Info: http://www1.psi.ch/www_lns_hn/sgn/sgn_main.html].

16–18 October 2000

Polymorphism and Crystallization Symposium. Chester, England, UK. [Contact: Scientific Update, Wyvern Cottage, High Street, Mayfield, East Sussex T20 6AE, UK. Tel: 44 (1435) 873062; Fax: 44 (1435) 872734; E-mail: sciup@scientificupdate.co.uk; Info: <http://www.scientificupdate.co.uk>].

29 October–3 November 2000

Eastern Analytical Symposium. Atlantic City, New Jersey, USA. At the Atlantic City Convention Center. [Contact: Eastern Analytical Symposium, Post Office Box 633, Monchanin, DE 19710-0633, USA. Tel: 1 (302) 738 6218; Fax: 1

(302) 738 5275; E-mail: easinfo@aol.com; Info: <http://www.eas.org>].

2–4 November 2000

Advances on Micras (Problems, Methods, and Applications in Geodynamics). Roma, Italy. [Contact: Daniela Volpato, Accademia Nazionale dei Lincei, Via della Lungara10, I-00165 RomaRM, Italia. Tel: 39 (06) 686 8223; Fax: 39 (06) 689 3616; E-mail: segreteria@accademia.lincci.it].

19–24 November 2000

SARX-2000 Seventh Latin American Seminar on Analysis by X-ray Techniques. São Pedro, São Paulo, Brasil. The town of São Pedro, near Campinas, is the site of the Laboratório Nacional de Luz Síncrotron. [Contact: SARX2000 Secretary, Instituto de Química, Universidad de Campinas, Caixa Postal 6154, Campinas, São Paulo, Brasil. Tel: 55 (19) 788 3128; Fax: 55 (19) 788 3023; E-mail: sarx@iqm.unicamp.br; Info: <http://sarx.iqm.unicamp.br/sarx2000en.htm>].

20–22 November 2000

ACXRI2000 Second Asian Conference on X-rays and Related Techniques in Research and Industry. Kuala Lumpur, Malaysia. [Contact: Dr. Meor Yusoff Sulaiman, Malaysia Institute for Nuclear Technology Research, Bangi, 43000 Kajang, Selangor, Malaysia. Tel: 6 (3) 825 0510; Fax: 6 (3) 825 3037; E-mail: meor@mint.gov.my/mns/s].

27 November–1 December 2000

Fall Meeting of the Materials Research Society. Boston, Massachusetts, USA. [Contact: Materials Research Society, 506Keystone Drive, Warrendale, PA 15086-7573, USA. Tel: 1 (724) 779 3003; Fax: 1 (724) 779 8313; E-mail: info@mrs.org; Info: <http://www.mrs.org>].

3–7 December 2000

Fourth International Mineralogy and Museums Conference. Melbourne, Victoria, Australia. [Contact: Dr. Bill Birch, Department of Mineralogy and Petrology, Museum Victoria, GPO Box 666E, Melbourne, Victoria 3001, Australia. Tel: 61 (3) 92705049; Fax: 61 (3) 92705043; E-mail: bbirch@mov.vic.gov.au; Info: <http://www.mov.vic.gov.au/mineralogy/mm4web/mm4committee.html>].

7–10 April 2001

British Crystallographic Association Annual Meeting. Reading, England, UK. Held at Reading University.

8–12 April 2001

EUG11 Eleventh Biennial Meeting of the European Union of Geosciences. Strasbourg, France. [Contact: EUG at EOST, 5 rue RenéDescartes, Strasbourg Cedex 67084, France. Tel: 33 (3) 88416393; Fax: 33 (3) 88603887; E-mail: eug@eost.u-strasbg.fr; Info: <http://eost.u-strasbg.fr/eug>].

16–18 April 2001

Accuracy in Powder Diffraction III. Gaithersburg, Maryland, USA. [Contact: James P. Cline, National Institute of Standards and Technology, 100 Bureau Drive, Stop 8523, Gaithersburg, MD 20899, USA. Tel: 1 (301) 975 5793; Fax: 1 (301) 975 5334; E-mail: cline@credit.nist.gov].

16–20 April 2001

Spring Meeting of the Materials Research Society. San Francisco, California, USA. [Contact: Materials Research Society, 506 Keystone Drive, Warrendale, PA 15086-7573, USA. Tel: 1 (724) 779 3003; Fax: 1 (724) 779 8313; E-mail: info@mrs.org; Info: <http://www.mrs.org>].

8–12 June 2001

PIXE2001 Ninth International Conference on Particle Induced X-ray Emission. Guelph, Ontario, Canada. Held at the University of Guelph. [Contact: Z. Nejedly, Element Analysis Corporation, 101 Venture Court, Suite B-1, Lexington, KY 40511, USA. Tel: 1 (606) 254 5115; Fax: 1 (606) 254 5150; E-mail: pixe@elementanalysis.com; Info: <http://pixe2001.physics.uoguelph.ca>].

9–12 July 2001

Scattering Methods for the Investigation of Polymers. Prague, Czech Republic. [Contact: Milena Srpova, PMM Secretariat, Institute of Macromolecular Chemistry, Academy of Sciences of the Czech Republic, Heyrovskéhonám.2, 16206 Praha6, Czech Republic. Tel: 420 (2) 360317; Fax: 420 (2) 367981; E-mail: sympo@imc.cas.cz].

16–19 July 2001

Polymer Membranes. Prague, Czech Republic. [Contact: Milena Srpova, PMM Secretariat, Institute of Macromolecular Chemistry, Academy of Sciences of the Czech Republic, Heyrovskéhonám.2, 16206 Praha6, Czech Republic. Tel: 420 (2) 360317; Fax: 420 (2) 367981; E-mail: sympo@imc.cas.cz].

21–26 July 2001

ACA'01 American Crystallographic Association Annual Meeting. Los Angeles, California, USA. [Contact: Katherine A. Kantardjieff, Department of Chemistry and Biochemistry, California State University, Fullerton, CA 92634, USA. Tel: 1 (714) 773 3752; Fax: 1 (714) 449 5316; E-mail: kant@csu.fullerton.edu; Info: <http://hwi.buffalo.edu/ACA>].

29 July–4 August 2001

12th International Clay Conference. Bahía Blanca, Argentina. Held at the Universidad Nacional del Sur. [Contact: Dr. Fernanda Cravero, Departamento de Geología, Universidad Nacional del Sur, San Juan 670, 8000 Bahía Blanca, Argentina. Fax: 54 (291) 459 5148; E-mail: 12icc@criba.edu.ar; Info: <http://www.12icc.criba.edu.ar>].

30 July–3 August 2001

Denver X-ray Conference. Denver, Colorado, USA. [Contact: Denise Flaherty, International Centre for Diffraction

Data, 12 Campus Boulevard, Newtown Square, PA 19073-3273, USA. Tel: 1 (610) 325 9814; Fax: 1 (610) 325 9823; E-mail: dxc@icdd.com; Info: <http://www.dxcicdd.com/01>].

30 July–4 August 2001

13th International Conference on Crystal Growth, in conjunction with the **11th International Conference on Vapor Growth and Epitaxy**. Kyoto, Japan. [Contact: Secretariat ICCG-13/ICVGE-11, Faculty of Engineering, Doshisha University, Kyotanabe-city, Kyoto 610-0321, Japan. Tel: 81 (774) 656 329; Fax: 81 (774) 656 811; E-mail: info@iccg.doshisha.ac.jp; Info: <http://icgg.doshisha.ac.jp/home.html>].

25–31 August 2001

ECM 20 20th European Crystallographic Meeting, Kraków, Poland. [Contact: Prof. Stanislaw Hodorowicz, Jagiellonian University, Faculty of Chemistry, ul. R. Ingardena 3, 30-060 Kraków, Poland. Tel: 48 (12) 336377 ext 67; Fax: 48 (12) 340515; E-mail: ecm2001@trurl.uj.edu.pl; Info: <http://www.ch.uj.edu.pl/ecm2001.htm>].

9–13 September 2001

ICNS2001 International Conference on Neutron Scattering, München, Germany. At Technische Universität München. [Contact: ICNS2001 Conference Office, Technische Universität München, Physik Department E13, D-85747 Garching, Germany. Tel: 49 (89) 28912452; Fax: 49 (89) 28912473; E-mail: info@icns2001.de; Info: <http://www.e13.physik.tu-muenchen.de/icns>].

5–12 October 2001

28th Annual Conference of Federation of Analytical Chemistry and Spectroscopy Societies. Detroit, Michigan, USA. [Contact: Cindi Lilly, FACSS, 1201 Don Diego Avenue, Santa Fe, NM 87505, USA. Tel: 1 (505) 820 1648; Fax: 1 (505) 989 1073; E-mail: jsjoberg@trail.com; Info: <http://facss.org/info.htm>].

26–30 November 2001

Fall Meeting of the Materials Research Society. Boston, Massachusetts, USA. [Contact: Materials Research Society, 506 Keystone Drive, Warrendale, PA 15086-7573, USA. Tel: 1 (724) 779 3003; Fax: 1 (724) 779 8313; E-mail: info@mrs.org; Info: <http://www.mrs.org>].

26–30 May 2002

ACA'02 American Crystallographic Association Annual Meeting. San Antonio, Texas, USA. [Contact: Raymond E. Davis, Department of Chemistry and Biochemistry, University of Texas at Austin, Austin, TX 78712-1167, USA. Tel: 1 (512) 471 4440; Fax: 1 (512) 471 8696; E-mail: redavis@mail.utexas.edu; Info: <http://hwi.buffalo.edu/aca>].

29 July–2 August 2002

Denver X-ray Conference. Denver, Colorado, USA. [Contact: Denise Flaherty, International Centre for Diffraction Data, 12 Campus Boulevard, Newtown Square, PA 19073-3273, USA. Tel: 1 (610) 325 9814; Fax: 1 (610) 325 9823; E-mail: dxc@icdd.com; Info: <http://www.dxcicdd.com/02>].

4–9 August 2002

Microscopy and Microanalysis 2002. Québec City, Québec, Canada. [Contact: Dr. Pierre M. Charest, Département de Phytologie, Pavillon C.-E. Marchand, Université Laval, Québec City, Qué. G1K 7P4, Canada. Tel: 1 (418) 656 7792; Fax: 1 (418) 656 7176; E-mail: pcharest@rsvs.ulaval.ca; Info: <http://msc.rsvs.ulaval.ca/2002/2002.html>].

6–15 August 2002

19th IUCr General Assembly and International Congress of Crystallography. Jerusalem, Israel. [Contact: Secretariat XIXIUCr, Post Office Box 50006, Tel Aviv 61500, Israel. Tel: 972 (3) 515 0009; Fax: 972 (3) 517 5674 or 972 (3) 514 0077; E-mail: iucr@kenes.com; Info: <http://www.kenes.com/iucr>].

25–29 August 2002

Twelfth International Conference on Small Angle Scattering. Venezia, Italia. [Contact: Dr. F. Carsughi, DIBIAGA, Università di Ancona, Via Breccia Bianche, I-60131 Ancona, Italia. Fax: 39 (071) 220 4605; E-mail: sas2002@unive.it; Info: http://www.isf.unian.it/isf/sas/home_sas.htm].

1–6 September 2002

ICEM-15 Fifteenth International Congress on Electron Microscopy. Durban, Kwazulu-Natal, South Africa. Sponsored by the International Federation of Societies for Electron Microscopy and the Microscopy Society of South Africa. Includes all aspects and applications of microscopy and microanalysis. [Contact: Robin Cross, ICEM-15 Secretariat, Electron Microscopy Unit, Rhodes University, Post Office Box 94, Grahamstown 6140, South Africa. Tel: 27 (46) 603 8168; Fax: 27 (46) 622 4377; E-mail: r.cross@ru.ac.za; Info: <http://www.icem15.com>].

2–4 September 2002

IMA2002 International Mineralogical Association. Edinburgh, Scotland, UK.

2–6 September 2003

ECNS2003 European Conference on Neutron Scattering. Montpellier, France. [Contact: René Vacher, CNRS-SPM, Montpellier, France. Tel: 33 (4) 67143449; Fax: 33 (4) 67143498; E-mail: rene@ldv.uni-montp2.fr; Info: <http://www.sfn.asso.fr>].