



In 2011, the ILL received notice of 611 publications by ILL staff and users. They are listed in the CD-ROM of this year's Annual Report.

The distribution by subject is as follows:

Applied Physics, Instrumentation and Techniques	52
Biology	45
Crystallography	81
Liquids and Glasses	31
Magnetic Excitations	49
Magnetic Structures	88
Materials Science and Engineering	66
Nuclear and Particle Physics	54
Theory	18
Soft Matter	91
Spectroscopy in Solid State Physics and Chemistry	36

#### ILL PhD studentships

PhD students at ILL in 2011*	32
PhD theses completed in 2011	9

\* receiving a grant from ILL

## **Biology**

Champion D., Loupiac C., Russo D., Simatos D., Zanotti J.M. Dynamic and sub-ambient thermal transition relationships in water-sucrose solutions

Journal of Thermal Analysis and Calorimetry **104**, 365-374 (2011)

Cioci G., Srivastava A., Loganathan D., Mason S.A., Pérez S., Imberty A. Low-temperature neutron diffraction structures of *N*-glycoprotein linkage models and analogues: Structure refinement and trifurcated hydrogen bonds

Journal of the American Chemical Society **133**, 10042-10045 (2011)

Cornicchi E., Sebastiani F., De Francesco A., Orecchini A., Paciaroni A., Petrillo C., Sacchetti F. Collective density fluctuations of DNA hydration water in the time-window below 1 ps

Journal of Chemical Physics **135**, 025101-1-025101-7 (2011)

Crepin T., Peterson F., Haertlein M., Jensen D., Wang C., Cusack S., Kron M. A hybrid structural model of the complete *Brugia malayi* cytoplasmic asparaginyl-tRNA synthetase

Journal of Molecular Biology **405**, 1056-1069 (2011)

Doster W. The two-step scenario of the protein dynamical transition

Journal of Non-Crystalline Solids **357**, 622-628 (2011)

Falb M., Amata I., Gabel F., Simon B., Carlomagno T. Structure of the K-turn U<sub>4</sub> RNA: A combined NMR and SANS study

Nucleic Acids Research **38**, 6274-6285 (2010)

Gabel F. Combining small-angle neutron and X-ray scattering for studying protein denaturation

Neutron News **22**, 20-23 (2011)

Garg S., Porcar L., Woodka A.C., Butler P.D., Perez-Salas U. Noninvasive neutron scattering measurements reveal slower cholesterol transport in model lipid membranes

Biophysical Journal **101**, 370-377 (2011)

Gerelli Y., García Sakai V., Ollivier J., Deriu A. Conformational and segmental dynamics in lipid-based vesicles

Soft Matter **7**, 3929-3935 (2011)

Grage S.L., Keleshian A.M., Turdzeladze T., Battle A.R., Tay W.C., May R.P., Holt S.A., Antoranz Contera S., Härtlein M., Moulin M., Pal P., Rohde P.R., Forsyth V.T., Watts A., Huang K.C., Ulrich A.S., Martinac B. Bilayer-mediated clustering and functional interaction of MscL channels

Biophysical Journal **100**, 1252-1260 (2011)

Greving I., Dicko C., Terry A., Callow P., Vollrath F. Small angle neutron scattering of native and reconstituted silk fibroin

Soft Matter **6**, 4389-4395 (2010)

- Groen D., Gooris G.S., Barlow D.J., Lawrence M.J., van Mechelen J.B., Demé B., Bouwstra J.A. Disposition of ceramide in model lipid membranes determined by neutron diffraction  
*Biophysical Journal* **100**, 1481-1489 (2011)
- Haupt M., Blakeley M.P., Teixeira S.C.M., Mason S.A., Mitchell E.P., Cooper J.B., Forsyth V.T. Preliminary neutron crystallographic study of human transthyretin  
*Acta Crystallographica F* **67**, 1428-1431 (2011)
- Hédoux A., Guinet Y., Descamps M. The contribution of Raman spectroscopy to the analysis of phase transformations in pharmaceutical compounds  
*International Journal of Pharmaceutics* **417**, 17-31 (2011)
- Horkay F., Basser P.J., Hecht A.M., Geissler E. Hierarchical organization of cartilage proteoglycans  
*Macromolecular Symposia* **306-307**, 11-17 (2011)
- Howard E.I., Blakeley M.P., Haertlein M., Petit-Haertlein I., Mitschler A., Fisher S.J., Cousido-Siah A., Salvay A.G., Popov A., Müller-Dieckmann C., Petrova T., Podjarny A. Neutron structure of type-III antifreeze protein allows the reconstruction of AFP-ice interface  
*Journal of Molecular Recognition* **24**, 724-732 (2011)
- Irzik K., Pfrötzschner J., Goss T., Ahnert F., Haupt M., Greie J.G. The KdpC subunit of the *Escherichia coli* K<sup>+</sup>-transporting KdpB P-type ATPase acts as a catalytic chaperone  
*FEBS Journal* **278**, 3041-3053 (2011)
- Ivanov I., Yabukarski F., Ruigrok R.W.H., Jamin M. Structural insights into the rhabdovirus transcription/replication complex  
*Virus Research* **162**, 126-137 (2011)
- Jogl G., Wang X., Mason S.A., Kovalevsky A., Mustyakimov M., Fisher Z., Hoffman C., Kratky C., Langan P. High-resolution neutron crystallographic studies of the hydration of the coenzyme cob(II)alamin  
*Acta Crystallographica D* **67**, 584-591 (2011)
- Kovalevsky A.Y., Hanson B.L., Mason S.A., Yoshida T., Fisher S.Z., Mustyakimov M., Forsyth V.T., Blakeley M.P., Keen D.A., Langan P. Identification of the elusive hydronium ion exchanging roles with a proton in an enzyme at lower pH values  
*Angewandte Chemie International Edition* **50**, 7520-7523 (2011)
- Knoll W., Natali F., Peters J., Nanekar R., Wang C., Kursula P. Dynamic properties of a reconstituted myelin sheath  
*Spectroscopy* **24**, 585-592 (2010)
- Langan P., Gnanakaran S., Rector K.D., Pawley N., Fox D.T., Cho D.W., Hammel K.E. Exploring new strategies for cellulosic biofuels production  
*Energy & Environmental Science* **4**, 3820-3833 (2011)
- Magazù S., Migliardo F., Benedetto A. Puzzle of protein *dynamical transition*  
*Journal of Physical Chemistry B* **115**, 7736-7743 (2011)

- Magazù S., Migliardo F., Benedetto A., Mondelli C., González M.A. Thermal behaviour of hydrated lysozyme in the presence of sucrose and trehalose by EINS  
Journal of Non-Crystalline Solids **357**, 664-670 (2011)
- Marcos E., Mestres P., Crehuet R. Crowding induces differences in the diffusion of thermophilic and mesophilic proteins: A new look at neutron scattering results  
Biophysical Journal **101**, 2782-2789 (2011)
- Mikl C., Peters J., Trapp M., Kornmueller K., Schneider W.J., Prassl R. Softness of atherogenic lipoproteins: A comparison of very low density lipoprotein (VLDL) and low density lipoprotein (LDL) using elastic incoherent neutron scattering (EINS)  
Journal of the American Chemical Society **133**, 13213-13215 (2011)
- Nagy G., Posselt D., Kovács L., Holm J.K., Szabó M., Ughy B., Rosta L., Peters J., Timmins P., Garab G. Reversible membrane reorganizations during photosynthesis *in vivo*: Revealed by small-angle neutron scattering  
Biochemical Journal **436**, 225-230 (2011)
- Nawroth T., Buch P., Buch K., Langguth P., Schweins R. Liposome formation from bile salt-lipid micelles in the digestion and drug delivery model FaSSIF<sub>mod</sub> estimated by combined time-resolved neutron and dynamic light scattering  
Molecular Pharmaceutics **8**, 2162-2172 (2011)
- Phillips T.K., Clarke S.M., Bhide T., Castro M.A., Millán C., Medina S. Monolayer structures of alkyl aldehydes: Odd-membered homologues  
Thin Solid Films **519**, 3123-3127 (2011)
- Porcar L. Alzheimer's hope from neutron research  
Trends in Analytical Chemistry **30**, ix-x (2011)
- Russo D., Pellegrini E., González M.A., Perticaroli S., Teixeira J. In situ molecular dynamics analysis of the water hydrogen bond at biomolecular sites: Hydrophobicity enhances dynamics heterogeneity  
Chemical Physics Letters **517**, 80-85 (2011)
- Russo D., Teixeira J., Kneller L., Copley J.R.D., Ollivier J., Perticaroli S., Pellegrini E., Gonzalez M.A. Vibrational density of states of hydration water at biomolecular sites: Hydrophobicity promotes low density amorphous ice behavior  
Journal of the American Chemical Society **133**, 4882-4888 (2011)
- Schirò G., Caronna C., Natali F., Koza M.M., Cupane A. The "protein dynamical transition" does not require the protein polypeptide chain  
Journal of Physical Chemistry Letters **2**, 2275-2279 (2011)
- Skar-Gislinge N., Arleth L. Small-angle scattering from phospholipid nanodiscs: Derivation and refinement of a molecular constrained analytical model form factor  
Physical Chemistry - Chemical Physics **13**, 3161-3170 (2011)

- Stadler A.M., van Eijck L., Demmel F., Artmann G. Macromolecular dynamics in red blood cells investigated using neutron spectroscopy  
*Journal of the Royal Society Interface* **8**, 590-600 (2011)
- Sugiyama M., Kurimoto E., Yagi H., Mori K., Fukunaga T., Hirai M., Zaccà G., Kato K. Kinetic asymmetry of subunit exchange of homooligomeric protein as revealed by deuteration-assisted small-angle neutron scattering  
*Biophysical Journal* **101**, 2037-2042 (2011)
- Tanaka M., Schneck E., Yoshikawa H.Y., Rossetti F.F. Physical chemistry of biological interfaces: Generic and specific roles of soft interlayers  
*Chemistry - An Asian Journal* **6**, 1728-1738 (2011)
- Tiggelaar S.M., Mossou E., Callow P., Callow S., Teixeira S.C.M., Mitchell E.P., Mitraki A., Forsyth V.T. Neutron fibre diffraction studies of amyloid using H<sub>2</sub>O/D<sub>2</sub>O isotopic replacement  
*Acta Crystallographica F* **67**, 332-335 (2011)
- Tomanicek S.J., Wang K.K., Weiss K.L., Blakeley M.P., Cooper J., Chen Y., Coates L. The active site protonation states of perdeuterated Toho-1  $\beta$ -lactamase determined by neutron diffraction support a role for Glu166 as the general base in acylation  
*FEBS Letters* **585**, 364-368 (2011)
- van Eijck L., Merzel F., Rols S., Ollivier J., Forsyth V.T., Johnson M.R. Direct determination of the base-pair force constant of DNA from the acoustic phonon dispersion of the double helix  
*Physical Review Letters* **107**, 088102-1-088102-5 (2011)
- Vauthier C., Persson B., Lindner P., Cabane B. Protein adsorption and complement activation for di-block copolymer nanoparticles  
*Biomaterials* **32**, 1646-1656 (2011)
- Wada M., Nishiyama Y., Bellesia G., Forsyth T., Gnanakaran S., Langan P. Neutron crystallographic and molecular dynamics studies of the structure of ammonia-cellulose I: Rearrangement of hydrogen bonding during the treatment of cellulose with ammonia  
*Cellulose* **18**, 191-206 (2011)
- Wu Z., Gogonea V., Lee X., May R.P., Pipich V., Wagner M.A., Undurti A., Tallant T.C., Baleanu-Gogonea C., Charlton F., Ioffe A., DiDonato J.A., Rye K.A., Hazen S.L. The low resolution structure of ApoA1 in spherical high density lipoprotein revealed by small angle neutron scattering  
*Journal of Biological Chemistry* **286**, 12495-12508 (2011)
- Zaccà G. Neutron scattering perspectives for protein dynamics  
*Journal of Non-Crystalline Solids* **357**, 615-621 (2011)
- Zaccà G. Neutrons and biology: Three decades of excitement and more to come  
*Neutron News* **21**, 43-45 (2010)

## Liquids and Glasses

Aoun B., Goldbach A., González M.A., Kohara S., Price D.L., Saboungi M.L. Nanoscale heterogeneity in alkyl-methylimidazolium bromide ionic liquids  
Journal of Chemical Physics **134**, 104509-1-104509-7 (2011)

Baldi G., Fontana A., Rossi F., Monaco G. Raman scattering investigation of the boson peak in a sodium silicate glass  
Philosophical Magazine **91**, 1801-1808 (2011)

Blochowitz T., Lusceac S.A., Gutfreund P., Schramm S., Stühn B. Two glass transitions and secondary relaxations of methyltetrahydrofuran in a binary mixture  
Journal of Physical Chemistry B **115**, 1623-1637 (2011)

Celli M., Bafle U., Colognesi D., De Francesco A., Formisano F., Guarini E., Neumann M., Zoppi M. Non-Gaussian self-dynamics of liquid hydrogen  
Physical Review B **84**, 140510-1-140510-5 (2011)

Chathoth S.M. Microscopic glass-transition in Ni-based metallic glass-forming melts  
Europhysics Letters **95**, 26001-p1-26001-p4 (2011)

Chathoth S.M., Samwer K. Stokes-Einstein relation in dense metallic glass-forming melts  
Applied Physics Letters **97**, 221910-1-221910-3 (2010)

Chirawatkul P., Zeidler A., Salmon P.S., Takeda S., Kawakita Y., Usuki T., Fischer H.E. Structure of eutectic liquids in the Au-Si, Au-Ge, and Ag-Ge binary systems by neutron diffraction  
Physical Review B **83**, 014203-1-014203-10 (2011)

Chmelik C., Enke D., Galvosas P., Gobin O., Jentys A., Jobic H., Kärger J., Krause C.B., Kullmann J., Lercher J., Naumov S., Ruthven D.M., Titze T. Nanoporous glass as a model system for a consistency check of the different techniques of diffusion measurement  
ChemPhysChem **12**, 1130-1134 (2011)

Comez L., Monaco G., Masciovecchio C., Paciaroni A., Gessini A., Scarponi F., Ruocco G., Fioretto D. Acoustic dissipation and density of states in liquid, supercooled, and glassy glycerol  
Physical Review Letters **106**, 155701-1-155701-4 (2011)

Comez L., Monaco G., Masciovecchio C., Paciaroni A., Gessini A., Scarponi F., Ruocco G., Fioretto D. Longitudinal acoustic compliance and tagged particle susceptibility in liquid and supercooled glycerol  
Journal of Non-Crystalline Solids **357**, 515-517 (2011)

Cormier L., Cuello G.J. Mg coordination in a MgSiO<sub>3</sub> glass using neutron diffraction coupled with isotopic substitution  
Physical Review B **83**, 224204-1-224204-8 (2011)

Desgranges L., Baldinozzi G., Siméone D., Fischer H.E. Refinement of the  $\alpha$ -U<sub>4</sub>O<sub>9</sub> crystalline structure: New insight into the U<sub>4</sub>O<sub>9</sub>  $\rightarrow$  U<sub>3</sub>O<sub>8</sub> transformation

Inorganic Chemistry **50**, 6146-6151 (2011)

Drewitt J.W.E., Jahn S., Cristiglio V., Bytchkov A., Leydier M., Brassamin S., Fischer H.E., Hennet L. The structure of liquid calcium aluminates as investigated using neutron and high energy X-ray diffraction in combination with molecular dynamics simulation methods  
Journal of Physics Condensed Matter **23**, 155101-1-155101-14 (2011)

Ferrage E., Sakharov B.A., Michot L.J., Delville A., Bauer A., Lanson B., Grangeon S., Frapper G., Jiménez-Ruiz M., Cuello G.J. Hydration properties and interlayer organization of water and ions in synthetic Na-smectite with tetrahedral layer charge. Part 2. Toward a precise coupling between molecular simulations and diffraction data  
Journal of Physical Chemistry C **115**, 1867-1881 (2011)

Gutfreund P., Wolff M., Maccarini M., Gerth S., Ankner J.F., Browning J., Halbert C.E., Wacklin H., Zabel H. Depletion at solid/liquid interfaces: Flowing hexadecane on functionalized surfaces  
Journal of Chemical Physics **134**, 064711-1-064711-1 (2011)

Hennet L., Cristiglio V., Kozaily J., Pozdnyakova I., Fischer H.E., Bytchkov A., Drewitt J.W.E., Leydier M., Thiaudière D., Gruner S., Brassamin S., Zanghi D., Cuello G.J., Koza M., Magazù S., Greaves G.N., Price D.L. Aerodynamic levitation and laser heating: Applications at synchrotron and neutron sources  
European Physical Journal Special Topics **196**, 151-165 (2011)

Kordel T., Holland-Moritz D., Yang F., Peters J., Unruh T., Hansen T., Meyer A. Neutron scattering experiments on liquid droplets using electrostatic levitation  
Physical Review B **83**, 104205-1-104205-9 (2011)

Kozaily J., Hennet L., Fischer H.E., Koza M., Brassamin S., Magazù S., Kargl F. Time-of-flight neutron spectroscopy: A new application of aerodynamic sample levitation  
Physica Status Solidi (c) **8**, 3155-3158 (2011)

Kruglova O., Mulder F.M., Kearley G.J., Picken S.J., Stride J.A., Paraschiv I., Zuilhof H. Dispersive kinetics in discotic liquid crystals  
Physical Review E **82**, 051703-1-051703-8 (2010)

Mason P.E., Neilson G.W., Price D., Saboungi M.L., Brady J.W. Simulation and neutron diffraction studies of small biomolecules in water  
Food Biophysics **6**, 210-216 (2011)

Petrillo C., Sacchetti F., Guarini E., Bove L.E., Demmel F. Collective modes in a saturated lithium-ammonia solution as a probe of the response of the low-density homogeneous electron gas  
Physical Review B **84**, 094206-1-094206-6 (2011)

Qvist J., Schober H., Halle B. Structural dynamics of supercooled water from quasielastic neutron scattering and molecular simulations  
Journal of Chemical Physics **134**, 144508-1-144508-20 (2011)

Rovira-Esteva M., Murugan N.A., Pardo L.C., Busch S., Tamarit J.L., Pothoczki S., Cuello G.J., Bermejo F.J. Interplay between intramolecular and intermolecular structures of 1,1,2,2-tetrachloro-1,2-difluoroethane

Physical Review B **84**, 064202-1-064202-12 (2011)

Ruta B., Baldi G., Giordano V.M., Orsingher L., Rols S., Scarponi F., Monaco G. Communication: High-frequency acoustic excitations and boson peak in glasses: A study of their temperature dependence  
Journal of Chemical Physics **133**, 041101-1-041101-4 (2010)

Sigaev V.N., Lotarev S.V., Ryzhenkov V.S., Golubev N.V., Stefanovich S.Y., Champagnon B., Vouagner D., Nardou E., Porcar L., Paleari A., Fargin E., Rodriguez V., Dussauze M. Nano-heterogeneous structure of (1-x)KNbO<sub>3-x</sub>SiO<sub>2</sub> glasses in the low glass-forming oxide content range 0.05 ≤ x ≤ 0.3  
Journal of Non-Crystalline Solids **357**, 3136-3142 (2011)

Sobolev O., Cuello G.J., Scheinost A.C., Johnson M.R., Nikitenko S., Le Forestier L., Brendle J., Charlet L. The short-range order of ions in clay minerals: Sm<sup>3+</sup> coordination  
Physica Status Solidi (a) **208**, 2293-2298 (2011)

Syrykh G.F., Situkha N.V., Klimenko N.A., Stride J.A. Dispersion relation of low-energy excitations in Zr<sub>50</sub>Be<sub>50</sub> metallic glass  
Journal of Surface Investigation. X-ray, Synchrotron and Neutron Techniques **5**, 409-411 (2011)

Wax J.F., Johnson M.R., Bove L.E., Mihalkovič M. Multiscale study of the influence of chemical order on the properties of liquid Li-Bi alloys  
Physical Review B **83**, 144203-1-144203-11 (2011)

Wax J.F., Johnson M.R., Bove L.E., Mihalkovič M. Multi-scale study of the static structure of liquid Li<sub>70</sub>-Bi<sub>30</sub> alloy  
EPJ Web of Conferences **15**, 01002-p1-01002-p3 (2011)

Wright A.C., Aitken B.G., Cuello G., Haworth R., Sinclair R.N., Stewart J.R., Taylor J.W. Neutron studies of an inorganic plastic glass  
Journal of Non-Crystalline Solids **357**, 2502-2510 (2011)

Zeidler A., Salmon P.S., Fischer H.E., Neufeind J.C., Simonson J.M., Lemmel H., Rauch H., Markland T.E. Oxygen as a site specific probe of the structure of water and oxide materials  
Physical Review Letters **107**, 145501-1-145501-5 (2011)

## **Applied Physics, Instrumentation and Techniques**

Andersen K.H., Bentley P.M., Cussen L.D. The ABC of powder diffractometer detector coverage  
Journal of Applied Crystallography **44**, 295-298 (2011)

Baessler S., Beau M., Kreuz M., Kurlov V.N., Nesvizhevsky V.V., Pignol G., Protasov K.V., Vezzu F., Voronin A.Y. The GRANIT spectrometer  
Comptes Rendus Physique **12**, 707-728 (2011)



Baessler S., Gagarski A.M., Lychagin E.V., Mietke A., Muzychka A.Y., Nesvizhevsky V.V., Pignol G., Strelkov A.V., Toperverg B.P., Zhernenkov K. New methodical developments for GRANIT - Nouveaux développements méthodologiques pour GRANIT  
Comptes Rendus Physique **12**, 729-754 (2011)

Bentley P.M., Fouquet P., Böhm M., Sutton I., Dewhurst C.D., Andersen K.H. Global optimization of an entire neutron guide hall  
Journal of Applied Crystallography **44**, 483-488 (2011)

Bouwman W.G., Duif C.P., Plomp J., Wiedenmann A., Gähler R. Combined SANS-SESANS, from 1nm to 0.1mm in one instrument  
Physica B **406**, 2357-2360 (2011)

Bull C.L., Guthrie M., Archer J., Fernández-Díaz M.T., Loveday J.S., Komatsu K., Hamidov H., Nelmes R.J. High-pressure single-crystal neutron diffraction to 10 GPa by angle-dispersive techniques  
Journal of Applied Crystallography **44**, 831-838 (2011)

Campbell R.A., Wacklin H.P., Sutton I., Cubitt R., Fragneto G. FIGARO: The new horizontal neutron reflectometer at the ILL  
European Physical Journal Plus **126**, 107-129 (2011)

Chapon L.C., Manuel P., Radaelli P.G., Benson C., Perrott L., Ansell S., Rhodes N.J., Raspino D., Duxbury D., Spill E., Norris J. Wish: The new powder and single crystal magnetic diffractometer on the second target station  
Neutron News **22**, 22-25 (2011)

Courtois P., Menthonnex C., Hehn R., Andersen K.H., Nesvizhevsky V., Zimmer O., Piegsa F., Geltenbort P., Greene G., Allen R., Huffman P.R., Schmidt-Wellenburg P., Fertl M., Mayer S. Production and characterization of intercalated graphite crystals for cold neutron monochromators  
Nuclear Instruments and Methods in Physics Research A **634**, S37-S40 (2011)

Cubitt R., Schweins R., Lindner P. Countering the effects of gravity on a small angle neutron scattering instrument  
Nuclear Instruments and Methods in Physics Research A **665**, 7-10 (2011)

Cubitt R., Stahn J. Neutron reflectometry by refractive encoding  
European Physical Journal Plus **126**, 111-115 (2011)

Cuello G.J., Dawidowski J., Granada J.R., Santisteban J.R., Blostein J.J., Rodriguez Palomino L.A. Proposal for instruments at small and medium size neutron facilities  
Journal of Physics : Conference Series **325**, 012013-1-012013-4 (2011)

Fang J., Bull C.L., Hamidov H., Loveday J.S., Gutmann M.J., Nelmes R.J., Kamenev K.V. A rotator for single-crystal neutron diffraction at high pressure  
Review of Scientific Instruments **81**, 113901-1-113901-6 (2010)

Farhi E., Willendrup P. Virtual experiments in a nutshell: Simulating neutron scattering from materials within instruments with McStas

Collection SFN **12**, 303-339 (2011)

Ferroglio L., Mana G., Massa E. The self-weight deformation of an X-ray interferometer  
*Metrologia* **48**, S50-S54 (2011)

Festa G., Senesi R., Alessandrini M., Andreani C., Vitali G., Porcinai S., Giusti A.M., Materna T.,  
Paradowska A.M. Non destructive neutron diffraction measurements of cavities, inhomogeneities, and  
residual strain in bronzes of Ghiberti's relief from the *Gates of Paradise*  
*Journal of Applied Physics* **109**, 064908-1-064908-9 (2011)

Freund A.K., Gsell S., Fischer M., Schreck M., Andersen K.H., Courtois P., Borchert G., Skoulatos M.  
Diamond mosaic crystals for neutron instrumentation: First experimental results  
*Nuclear Instruments and Methods in Physics Research A* **634**, S28-S36 (2011)

Frick B., Neumann D. Neutron Backscattering  
In "Neutrons in Soft Matter" Imae T. et al. Eds. (2011, Wiley) pp. 183-202

Fuentes-Montero L., Montero-Cabrera M.E., Fuentes-Cobas L. The software package ANAELU for X-ray  
diffraction analysis using two-dimensional patterns  
*Journal of Applied Crystallography* **44**, 241-246 (2011)

González M.A. Force fields and molecular dynamics simulations  
Collection SFN **12**, 169-200 (2011)

Granja C., Jakubek J., Platkevic M., Pospisil S., Vykydal Z. Detection and real time spectroscopy of charged  
particles with the TimePix pixel detector  
*AIP Conference Proceedings* **1204**, 75-79 (2010)

Grillo I. Albe 1998 - La Grande Motte 2009 : quelles avancées en 10 ans ?  
Collection SFN **11**, 243-253 (2010)

Habs D., Köster U. Production of medical radioisotopes with high specific activity in photonuclear reactions  
with  $\gamma$ -beams of high intensity and large brilliance  
*Applied Physics B* **103**, 501-519 (2011)

Habs D., Tajima T., Köster U. Laser-driven radiation therapy  
In "Current Cancer Treatment - Novel Beyond Conventional Approaches" Ozdemir O. Ed. (2011, InTech) pp.  
199-226

Hasegawa Y., Durstberger-Rennhofer K., Sponar S., Rauch H. Kochen-Specker theorem studied with neutron  
interferometer  
*Nuclear Instruments and Methods in Physics Research A* **634**, S21-S24 (2011)

Hennig M., Frick B., Seydel T. Optimum velocity of a phase-space transformer for cold-neutron  
backscattering spectroscopy  
*Journal of Applied Crystallography* **44**, 467-472 (2011)

Johnson M., Kearley D. Vanishing data - Good experiment, no publication!

Neutron News **21**, 2-3 (2010)

Klepp J., Pruner C., Ellabban M.A., Tomita Y., Lemmel H., Rauch H., Fally M. Neutron-optical gratings from nanoparticle-polymer composites

Nuclear Instruments and Methods in Physics Research A **634**, S59-S62 (2011)

Klimko S., Zhernenkov K., Toperverg B.P., Zabel H. Development and application of setup for ac magnetic field in neutron scattering experiments

Review of Scientific Instruments **81**, 103303-1-103303-8 (2010)

Köster U., Granja C., Jakubek J., Uher J., Vacik J. Slow-neutron-induced charged-particle emission-channeling-measurements with Medipix detectors

Nuclear Instruments and Methods in Physics Research A **633**, S267-S269 (2011)

Lauer T., Geltenbort P., Hoebel P., Kaoui M., Koch H.C., Kraft A., Schmidt U., Sobolev Y. Experimental investigation of a low-cost solid state detector with high spatial resolution for ultracold neutrons

European Physical Journal A **47**, 150-1-150-10 (2011)

Lehenberger S., Barkhausen C., Cohrs S., Fischer E., Grunberg J., Hohn A., Köster U., Schibli R., Türler A., Zhernosekov K. The low-energy  $\beta^-$  and electron emitter  $^{161}\text{Tb}$  as an alternative to  $^{177}\text{Lu}$  for targeted radionuclide therapy

Nuclear Medicine and Biology **38**, 917-924 (2011)

Magazù S., Migliardo F., Benedetto A. Elastic incoherent neutron scattering operating by varying instrumental energy resolution: Principle, simulations, and experiments of the resolution elastic neutron scattering (RENS)

Review of Scientific Instruments **82**, 105115-1-105115-11 (2011)

Michels A., Honecker D., Döbrich F., Dewhurst C.D., Wiedenmann A., Gómez-Polo C., Suzuki K. Small-angle neutron scattering with one-dimensional polarization analysis

Neutron News **22**, 15-19 (2011)

Muñoz-Romero A., Aquino De Los Ríos G., Domínguez-Barrera P., Fuentes-Montero L., Camarillo-Cisneros J., Camacho-Montes H., Fuentes-Montero M.E., Montero-Cabrera M.E., García-Guaderrama M., Fuentes-Cobas L. From nano to bulk: Computer- and synchrotron-aided investigation of the structure-properties relationship

Integrated Ferroelectrics **125**, 61-72 (2011)

Ollivier J., Mutka H. IN5 cold neutron time-of-flight spectrometer, prepared to tackle single crystal spectroscopy

Journal of the Physical Society of Japan **80**, SB003-1-SB003-6 (2011)

Ouladdiaf B., Archer J., Allibon J.R., Decarpentrie P., Lemée-Cailleau M.H., Rodríguez-Carvajal J., Hewat A.W., York S., Brau D., McIntyre G.J. CYCLOPS - A reciprocal-space explorer based on CCD neutron detectors

Journal of Applied Crystallography **44**, 392-397 (2011)

Pankratov V., Popov A.I., Shirmane L., Kotlov A., Feldmann C. LaPO<sub>4</sub>:Ce,Tb and YVO<sub>4</sub>:Eu nanophosphors: Luminescence studies in the vacuum ultraviolet spectral range  
Journal of Applied Physics **110**, 053522-1-053522-7 (2011)

Pleshanov N.K., Schebetov A.F. Two types of wide-angle fan analyzers for neutron beams  
Nuclear Instruments and Methods in Physics Research A **634**, S117-S121 (2011)

Pokotilovski Y.N., Novopoltsev M.I., Geltenbort P., Brenner T. A differential time-of-flight spectrometer of very slow neutrons  
Instruments and Experimental Techniques **54**, 16-22 (2011)

Rodríguez-Velamazán J.A., Campo J., Rodríguez-Carvajal J., Noguera P. *XtremeD* - A new neutron diffractometer for high pressures and magnetic fields at ILL developed by Spain  
Journal of Physics : Conference Series **325**, 012010-1-012010-4 (2011)

Rodríguez-Velamazán J.A., Noguera P. The challenging optics of *XtremeD* - a neutron diffractometer for high pressures and magnetic fields at ILL developed by Spain  
Journal of Physics : Conference Series **325**, 012022-1-012022-5 (2011)

Šaroun J., Kulda J., Mikula P., Vrána M. Monte Carlo simulations of parasitic and multiple reflections in elastically bent perfect single-crystals  
Nuclear Instruments and Methods in Physics Research A **634**, S50-S54 (2011)

Takahashi N., Shibata K., Kawakita Y., Nakajima K., Inamura Y., Nakatani T., Nakagawa H., Fujiwara S., Sato T.J., Tsukushi I., Mezei F., Neumann D.A., Mutka H., Arai M. Repetition rate multiplication: RRM, an advanced measuring method planned for the backscattering instrument, DNA at the MLF, J-PARC  
Journal of the Physical Society of Japan **80**, SB007-1-SB007-4 (2011)

Ting V.P., Schmidtmann M., Henry P.F., Dann S.E., Crisp J.L., Wilson C.C., Weller M.T. The kinetics of bulk hydration of the disaccharides  $\alpha$ -lactose and trehalose by *in situ* neutron powder diffraction  
MedChemComm **1**, 345-348 (2010)

Udby L., Willendrup P.K., Knudsen E., Niedermayer C., Filges U., Christensen N.B., Farhi E., Wells B.O., Lefmann K. Analysing neutron scattering data using McStas virtual experiments  
Nuclear Instruments and Methods in Physics Research A **634**, S138-S143 (2011)

Venturini F., Schöder S., Kuhs W.F., Honkimäki V., Melesi L., Reichert H., Schober H., Thomas F. A large-volume gas cell for high-energy X-ray reflectivity investigations of interfaces under pressure  
Journal of Synchrotron Radiation **18**, 251-256 (2011)

Wildes A. Life in the line of fire  
Science in School **19**, 10-12 (2011)

Willendrup P.K., Udby L., Knudsen E., Farhi E., Lefmann K. Using McStas for modelling complex optics, using simple building bricks  
Nuclear Instruments and Methods in Physics Research A **634**, S150-S155 (2011)

Yamada M., Iwashita Y., Kanaya T., Ichikawa M., Tongu H., Kennedy S.J., Shimizu H.M., Mishima K., Yamada N.L., Hirota K., Carpenter J.M., Lal J., Andersen K., Geltenbort P., Guérard B., Manzin G., Hino M., Kitaguchi M., Bleuel M. The performance of magnetic lens for focusing VCN-SANS  
Nuclear Instruments and Methods in Physics Research A **634**, S156-S160 (2011)

Yamada M., Iwashita Y., Kanaya T., Yamada N.L., Shimizu H.M., Mishima K., Hino M., Kitaguchi M., Hirota K., Geltenbort P., Guérard B., Manzin G., Andersen K., Lal J., Carpenter J.M., Bleuel M., Kennedy S.J. A compact TOF-SANS using focusing lens and very cold neutrons  
Physica B **406**, 2453-2457 (2011)

Yoshioka T., Mishima K., Ino T., Taketani K., Muto S., Morishima T., Shimizu H.M., Oku T., Suzuki J., Shinohara T., Sakai K., Sato H., Hirota K., Otake Y., Kitaguchi M., Hino M., Seki Y., Iwashita Y., Yamada M., Ichikawa M., Sugimoto T., Kawasaki S., Komamiya S., Otono H., Kamiya Y., Yamashita S., Geltenbort P. Polarization of very cold neutron using a permanent magnet quadrupole  
Nuclear Instruments and Methods in Physics Research A **634**, S17-S20 (2011)

### **Nuclear and Particle Physics**

Abbas S., Wagh A.G., Loidl R., Lemmel H., Rauch H., Garg Alka B., Mittal R., Mukhopadhyay R. Neutron coherent scattering length determination with a dual non-dispersive sample  
AIP Conference Proceedings **1349**, 501-502 (2011)

Abele H., Cronenberg G., Geltenbort P., Jenke T., Lins T., Saul H. *q*Bounce, the quantum bouncing ball experiment  
Physics Procedia **17**, 4-9 (2011)

Antoniadis I., Baessler S., Bertolami O., Dubbers D., Meyerovich A., Nesvizhevsky V., Protasov K., Reynaud S. Workshop GRANIT-2010, 14-19 February 2010, Les Houches, France  
Comptes Rendus Physique **12**, 703-706 (2011)

Antoniadis I., Baessler S., Büchner M., Fedorov V.V., Hoedl S., Lambrecht A., Nesvizhevsky V.V., Pignol G., Protasov K.V., Reynaud S., Sobolev Y. Short-range fundamental forces  
Comptes Rendus Physique **12**, 755-778 (2011)

Arzumanov S.S., Bondarenko L.N., Geltenbort P., Morozov V.I., Nesvizhevsky V.V., Panin Y.N., Strepetov A.N., Chuvilin D.Y. Flexible polyvinyl chloride neutron guides for transporting ultracold and very cold neutrons  
Crystallography Reports **56**, 1197-1199 (2011)

Atchison F., Blau B., Bodek K., van den Brandt B., Brýs T., Daum M., Fierlinger P., Geltenbort P., Hautle P., Henneck R., Heule S., Holley A., Kasprzak M., Kirch K., Knecht A., Konter J.A., Kuźniak M., Liu C.Y., Pichlmaier A., Plonka C., Pokotilovski Y., Saunders A., Tortorella D., Wohlmuther M., Young A.R., Zejma J., Zsigmond G. Production of ultracold neutrons from cryogenic  $^2\text{H}_2$ ,  $\text{O}_2$ , and  $\text{C}_2\text{H}_4$  converters  
Europhysics Letters **95**, 12001-p1-12001-p6 (2011)

Babcock E., Boag S., Beecham C., Chupp T.E., Gentile T.R., Jones G.L., Petukhov A.K., Walker T.G. Effects of high intensity neutron flux on in-situ spin-exchange optical pumping of  $^3\text{He}$

Journal of Physics : Conference Series **294**, 012011-1-012011-9 (2011)

Bail A., Serot O., Mathieu L., Litaize O., Materna T., Köster U., Faust H., Letourneau A., Panebianco S. Isotopic yield measurement in the heavy mass region for  $^{239}\text{Pu}$  thermal neutron induced fission  
Physical Review C **84**, 034605-1-034605-14 (2011)

Baker C.A., Ban G., Bodek K., Burghoff M., Chowdhuri Z., Daum M., Fertl M., Franke B., Geltenbort P., Green K., van der Grinten M.G.D., Gutmiedl E., Harris P.G., Henneck R., Iaydjiev P., Ivanov S.N., Khomutov N., Kasprzak M., Kirch K., Kistryn S., Knappe-Grüneberg S., Knecht A., Knowles P., Kozela A., Lauss B., Lefort T., Lemièrre Y., Naviliat-Cuncic O., Pendlebury J.M., Pierre E., Piegsa F.M., Pignol G., Quémener G., Rocca S., Schmidt-Wellenburg P., Shiers D., Smith K.F., Schnabel A., Trahms L., Weis A., Zejma J., Zenner J., Zsigmond G. The search for the neutron electric dipole moment at the Paul Scherrer Institute  
Physics Procedia **17**, 159-167 (2011)

Bernards C., Urban W., Jentschel M., Märkisch B., Jolie J., Fransen C., Köster U., Materna T., Simpson G.S., Thomas T.  $\gamma\gamma$  angular-correlation analysis of  $^{200}\text{Hg}$  after cold-neutron capture  
Physical Review C **84**, 047304-1-047304-4 (2011)

Börner H.G., Casten R.F., Jentschel M., Mutti P., Urban W., Zamfir N.V.  $^{102}\text{Ru}$ : A pivotal nucleus in the  $A\sim 100$  region  
Physical Review C **84**, 044326-1-044326-4 (2011)

Canaguier-Durand A., Gérardin A., Guérout R., Maia Neto P.A., Nesvizhevsky V.V., Voronin A.Y., Lambrecht A., Reynaud S. Casimir interaction between a dielectric nanosphere and a metallic plane  
Physical Review A **83**, 032508-1-032508-6 (2011)

Cocolios T.E., Dexters W., Seliverstov M.D., Andreyev A.N., Antalic S., Barzakh A.E., Bastin B., Büscher J., Darby I.G., Fedorov D.V., Fedosseyev V.N., Flanagan K.T., Franchoo S., Fritzsche S., Huber G., Huyse M., Keupers M., Köster U., Kudryavtsev Y., Mané E., Marsh B.A., Molkanov P.L., Page R.D., Sjoedin A.M., Stefan I., van de Walle J., Van Duppen P., Venhart M., Zemlyanoy S.G., Bender M., Heenen P.H. Early onset of ground state deformation in neutron deficient polonium isotopes  
Physical Review Letters **106**, 052503-1-052503-4 (2011)

Daum M., Fierlinger P., Franke B., Geltenbort P., Goeltl L., Gutmiedl E., Karch J., Kessler G., Kirch K., Koch H.C., Kraft A., Lauer T., Lauss B., Pierre E., Pignol G., Reggiani D., Schmidt-Wellenburg P., Sobolev Y., Zechlau T., Zsigmond G. First observation of trapped high-field seeking ultracold neutron spin states  
Physics Letters B **704**, 456-460 (2011)

Durstberger-Rennhofer K., Hasegawa Y. Energy entanglement in neutron interferometry  
Physica B **406**, 2373-2376 (2011)

Elseviers J., Andreyev A.N., Antalic S., Barzakh A., Bree N., Cocolios T.E., Comas V.F., Diriken J., Fedorov D., Fedosseev V.N., Franchoo S., Heredia J.A., Huyse M., Ivanov O., Köster U., Marsh B.A., Page R.D., Patronis N., Seliverstov M., Tsekhanovich I., Van den Bergh P., van de Walle J., Van Duppen P., Venhart M., Vermote S., Veselský M., Wagemans C. Shape coexistence in  $^{180}\text{Hg}$  studied through the  $\beta$  decay of  $^{180}\text{Tl}$   
Physical Review C **84**, 034307-1-034307-8 (2011)

- Faust H. The statistical model in nuclear fission-excitation energy and spin population in fragments  
In "Seminar on Fission" Wagemans C. et al. Eds. (2010, World Scientific) pp. 89-97
- Faust H., Köster U., Materna T., Urban W. Population characteristics for spin and excitation energy of fragments in thermal neutron induced fission  
Journal of the Korean Physical Society **59**, 879-882 (2011)
- Frank A.I., Geltenbort P., Jentschel M., Kustov D.V., Kulin G.V., Strepetov A.N. New experiment on the observation of the effect of accelerating matter in neutron optics  
JETP Letters **93**, 361-365 (2011)
- Frei A., Gutmiedl E., Morkel C., Müller A.R., Paul S., Rols S., Schober H., Unruh T. Understanding of ultra-cold-neutron production in solid deuterium  
Europhysics Letters **92**, 62001-p1-62001-p6 (2010)
- Gagarskii A.M., Guseva I.S., Goennenwein F., Kopach Y.N., Mutterer M., Kuz'mina T.E., Petrov G.A., Tyurin G., Nesvizhevsky V. Effects of *T*-odd asymmetry of the emission of light charged particles and photons during fission of heavy nuclei by polarized neutrons  
Crystallography Reports **56**, 1238-1242 (2011)
- Granja C., Jakubek J., Köster U., Platkevic M., Pospisil S. Response of the pixel detector Timepix to heavy ions  
Nuclear Instruments and Methods in Physics Research A **633**, S198-S202 (2011)
- Granja C., Jakubek J., Köster U., Platkevic M., Pospisil S. Spatial and time coincidence detection of the decay chain of short-lived radioactive nuclei  
AIP Conference Proceedings **1265**, 497-500 (2010)
- Gutmiedl E., Bohle F., Frei A., Maier A., Paul S., Orecchini A., Schober H. Production of ultra-cold neutrons in solid  $\alpha$ -oxygen  
Europhysics Letters **96**, 62001-p1-62001-p5 (2011)
- Iannuzzi M., Messi R., Moricciani D., Orecchini A., Sacchetti F., Facchi P., Pascasio S. Further evidence of antibunching of two coherent beams of fermions  
Physical Review A **84**, 015601-1-015601-4 (2011)
- Ilie G., Neyens G., Simpson G.S., Jolie J., Blazhev A., Grawe H., Lozeva R.L., Vermeulen N., Atanasova L., Balabanski D.L., Becker F., Bednarczyk P., Brandau C., Caceres L., Chamoli S.K., Daugas J.M., Doornenbal P., Gerl J., Górska M., Grebosz J., Hass M., Ionescu-Bujor M., Jungclaus A., Kmiecik M., Kojouharov I., Kurz N., Maj A., Mallion S., Perru O., Pfützner M., Podolyák Z., Prokopowicz W., De Rydt M., Saito T.R., Schaffner H., Turzó K., Walker J., Werner-Malento E., Wollersheim H.J. *g* Factor of the  $7^-$  isomer in  $^{126}\text{Sn}$  and first observation of spin-alignment in relativistic fission  
Physics Letters B **687**, 305-309 (2010)
- Jakubek J., Platkevic M., Granja C., Köster U., Pospisil S. Direct observation of decay of radioactive nuclei with spatial and time coincidence technique  
Nuclear Instruments and Methods in Physics Research A **633**, S203-S205 (2011)

- Jenke T., Geltenbort P.G., Lemmel H., Abele H. Realization of a gravity-resonance-spectroscopy technique  
Nature Physics **7**, 468-472 (2011)
- Jentschel M., Urban W., Mutti P., Courtois P., Simpson G.S., Frahm R. Measurements of the pair production cross section close to the threshold energy  
Physical Review C **84**, 052501-1-052501-5 (2011)
- Klepp J., Pruner C., Tomita Y., Plonka-Spehr C., Geltenbort P., Ivanov S., Manzin G., Andersen K.H., Kohlbrecher J., Ellabban M.A., Fally M. Diffraction of slow neutrons by holographic SiO<sub>2</sub> nanoparticle-polymer composite gratings  
Physical Review A **84**, 013621-1-013621-7 (2011)
- Köster U., Stone N.J., Flanagan K.T., Stone J.R., Fedosseev V.N., Kratz K.L., Marsh B.A., Materna T., Mathieu L., Molkanov P.L., Seliverstov M.D., Serot O., Sjödin A.M., Volkov Y.M. In-source laser spectroscopy of <sup>75,77,78</sup>Cu: Direct evidence for a change in the quasiparticle energy sequence in <sup>75,77</sup>Cu and an absence of longer-lived isomers in <sup>78</sup>Cu  
Physical Review C **84**, 034320-1-034320-7 (2011)
- Krylov A.R., Lychagin E.V., Muzychka A.Y., Nesvizhevsky V.V., Nekhaev G.V., Strelkov A.V., Ivanov A.S. Study of bound hydrogen in powders of diamond nanoparticles  
Crystallography Reports **56**, 1186-1191 (2011)
- Kurpeta J., Rissanen J., Płochocki A., Urban W., Elomaa V.V., Eronen T., Hakala J., Jokinen A., Kankainen A., Karvonen P., Małkiewicz T., Moore I.D., Penttilä H., Saastamoinen A., Simpson G.S., Weber C., Äystö J. New isomer and decay half-life of <sup>115</sup>Ru  
Physical Review C **82**, 064318-1-064318-5 (2010)
- Kurpeta J., Urban W., Płochocki A., Rissanen J., Pinston J.A., Elomaa V.V., Eronen T., Hakala J., Jokinen A., Kankainen A., Karvonen P., Moore I.D., Penttilä H., Saastamoinen A., Weber C., Äystö J. Signatures of oblate deformation in the <sup>111</sup>Tc nucleus  
Physical Review C **84**, 044304-1-044304-4 (2011)
- Morozov A., Fraga M.M.F.R., Pereira L., Margato L.M.S., Fetal S.T.G., Guérard B., Manzin G., Fraga F.A.F. Effect of the electric field on the primary scintillation from CF<sub>4</sub>  
Nuclear Instruments and Methods in Physics Research A **628**, 360-363 (2011)
- Mueller T.A., Lhuillier D., Fallot M., Letourneau A., Cormon S., Fechner M., Giot L., Lasserre T., Martino J., Mention G., Porta A., Yermia F. Improved predictions of reactor antineutrino spectra  
Physical Review C **83**, 054615-1-054615-17 (2011)
- Nesvizhevsky V.V. Experiments with ultracold neutrons  
Low Temperature Physics **37**, 367-371 (2011)
- Nesvizhevsky V.V. Experiments with ultracold neutrons  
Fizika Nizkikh Temperatur **37**, 471-476 (2011)
- Nesvizhevsky V.V. Gravitational and centrifugal quantum states of neutrons  
Journal of Physics : Conference Series **306**, 012003-1-012003-6 (2011)



Nesvizhevsky V.V. Reflectors for VCN and applications of VCN  
Revista Mexicana de Fisica **557**, 1-5 (2011)

Nesvizhevsky V.V., Voronin A.Y. Centrifugal quantum states of neutrons  
Comptes Rendus Physique **12**, 791-795 (2011)

Noguere G., Litaize O., Archier P., De Saint Jean C., Mutti P. Average radiation widths of levels in natural xenon isotopes  
Nuclear Physics A **870-871**, 131-158 (2011)

Pietri S., Jungclaus A., Górska M., Grawe H., Pfützner M., Cacéres L., Detistov P., Lalkovski S., Modamio V., Podolyák Z., Regan P.H., Rudolph D., Walker J., Werner-Malento E., Bednarczyk P., Doornenbal P., Geissel H., Gerl J., Grebosz J., Kojouharov I., Kurz N., Prokopowicz W., Schaffner H., Wollersheim H.J., Andgren K., Benlliure J., Benzoni G., Bruce A.M., Casarejos E., Cederwall B., Crespi F.C.L., Hadinia B., Hellström M., Hoischen R., Ilie G., Khaplanov A., Kmiecik M., Kumar R., Maj A., Mandal S., Montes F., Myalski S., Simpson G., Steer S.J., Tashenov S., Wieland O. First observation of the decay of a  $15^-$  seniority  $\nu=4$  isomer in  $^{128}\text{Sn}$   
Physical Review C **83**, 044328-1-044328-6 (2011)

Rissanen J., Kurpeta J., Elomaa V.V., Eronen T., Hakala J., Jokinen A., Moore I.D., Karvonen P., Płochocki A., Próchniak L., Penttilä H., Rahaman S., Reponen M., Saastamoinen A., Szerypo J., Urban W., Weber C., Äystö J. Decay study of  $^{114}\text{Tc}$  with a Penning trap  
Physical Review C **83**, 011301-1-011301-5 (2011)

Rissanen J., Kurpeta J., Płochocki A., Elomaa V.V., Eronen T., Hakala J., Jokinen A., Kankainen A., Karvonen P., Moore I.D., Penttilä H., Rahaman S., Saastamoinen A., Urban W., Weber C., Äystö J. Penning-trap-assisted study of  $^{115}\text{Ru}$  beta decay  
European Physical Journal A **47**, 97-105 (2011)

Rzāca-Urban T., Urban W., Pinston J.A., Smith A.G., Ahmad I. Near-yrast, medium-spin structure of  $^{143}\text{Xe}$   
Physical Review C **83**, 067301-1-067301-4 (2011)

Schmitt E. Etude de l'accumulation de radionucléides par une nouvelle micro-algue - Study of radionuclides accumulation by a new micro-alga  
Internal Report (2010)

Serebrov A.P., Zhrebtsov O.M., Sbitnev S.V., Varlamov V.E., Vassiljev A.V., Lasakov M.S. Search for long-range force between a neutron and an atom with a trap of ultracold neutrons  
Physical Review C **84**, 044001-1-044001-11 (2011)

Simpson G.S., Scherillo A., Genevey J., Orlandi R., Pinston J.A., Tsekhanovich I.S., Warr N., Covello A., Gargano A.  $19/2^+$  isomer of  $^{125}\text{Cd}$  and realistic shell-model calculations of neutron-rich Cd isotopes  
Journal of Physics : Conference Series **267**, 012031-1-012031-6 (2011)

Vesna V.A., Gledenov Y.M., Nesvizhevsky V.V., Petukhov A.K., Sedyshev P.V., Soldner T., Zimmer O., Shulgina E.V. Parity-violating asymmetry in the reactions  $^6\text{Li}(n,\alpha)^3\text{H}$  and  $^{10}\text{B}(n,\alpha)^7\text{Li}^* \rightarrow ^7\text{Li}+\gamma$   
Hyperfine Interactions **201**, 31-36 (2011)

Vesna V.A., Gledenov Y.M., Nesvizhevsky V.V., Sedyshev P.V., Shulgina E.V. New results on P-odd asymmetry of  $\gamma$ -quanta emission in  $^{10}\text{B}(n, \alpha)^7\text{Li}^* \rightarrow \gamma + ^7\text{Li}(\text{g.s.})$  nuclear reaction  
European Physical Journal A **47**, 43-51 (2011)

Voronin A.Y., Froelich P., Nesvizhevsky V.V. Gravitational quantum states of antihydrogen  
Physical Review A **83**, 032903-1-032903-10 (2011)

Wimmer K., Köster U., Hoff P., Kröll T., Krücken R., Lutter R., Mach H., Morgan T., Sarkar S., Sarkar M.S., Schwerdtfeger W., Srivastava P.C., Thirolf P.G., Van Isacker P. Identification of the slow  $E3$  transition  $^{136}\text{Cs}^m \rightarrow ^{136}\text{Cs}$  with conversion electrons  
Physical Review C **84**, 014329-1-014329-5 (2011)

Zimmer O., Piegsa F.M., Ivanov S.N. Superthermal source of ultracold neutrons for fundamental physics experiments  
Physical Review Letters **107**, 134801-1-134801-4 (2011)

## **Soft Matter**

Alexander G.G., Cubitt R., Dalgliesh R.M., Kinane C., Richardson R.M., Zimmermann H. A neutron reflection study of surface enrichment in nematic liquid crystals  
Physical Chemistry - Chemical Physics **13**, 14784-14794 (2011)

Armstrong C.L., Trapp M., Peters J., Seydel T., Rheinstädter M.C. Short range ballistic motion in fluid lipid bilayers studied by quasi-elastic neutron scattering  
Soft Matter **7**, 8358-8362 (2011)

Barrett M., Deschner A., Embs J.P., Rheinstädter M.C. Chain formation in a magnetic fluid under the influence of strong external magnetic fields studied by small angle neutron scattering  
Soft Matter **7**, 6678-6683 (2011)

Bauer M., Fajolles C., Charitat T., Wacklin H., Daillant J. Amphiphilic behavior of new cholesteryl cyclodextrins: A molecular study  
Journal of Physical Chemistry B **115**, 15263-15270 (2011)

Berret J.F. Controlling electrostatic co-assembly using ion-containing copolymers: From surfactants to nanoparticles  
Advances in Colloid and Interface Science **167**, 38-48 (2011)

Brown P., Butts C., Dyer R., Eastoe J., Grillo I., Guittard F., Rogers S., Heenan R. Anionic surfactants and surfactant ionic liquids with quaternary ammonium counterions  
Langmuir **27**, 4563-4571 (2011)

Busselez R., Arbe A., Alvarez F., Colmenero J., Frick B. Study of the structure and dynamics of poly(vinyl pyrrolidone) by molecular dynamics simulations validated by quasielastic neutron scattering and X-ray diffraction experiments

Journal of Chemical Physics **134**, 054904-1-054904-15 (2011)

Busselez R., Lefort R., Ghoufi A., Beuneu B., Frick B., Affouard F., Morineau D. The non-Gaussian dynamics of glycerol

Journal of Physics Condensed Matter **23**, 505102-1-505102-6 (2011)

Campbell R.A., Edler K.J. Growth-collapse mechanism of PEI-CTAB films at the air-water interface  
Soft Matter **7**, 11125-11132 (2011)

Campbell R.A., Yanez Arteta M., Angus-Smyth A., Nylander T., Varga I. Effects of bulk colloidal stability on adsorption layers of poly(diallyldimethylammonium chloride)/sodium dodecyl sulfate at the air-water interface studied by neutron reflectometry

Journal of Physical Chemistry B **115**, 15202-15213 (2011)

Capponi S., Arbe A., Cervený S., Busselez R., Frick B., Embs J.P., Colmenero J. Quasielastic neutron scattering study of hydrogen motions in an aqueous poly(vinyl methyl ether) solution

Journal of Chemical Physics **134**, 204906-1-204906-14 (2011)

Cardinaux F., Zaccarelli E., Stradner A., Bucciarelli S., Farago B., Egelhaaf S.U., Sciortino F., Schurtenberger P. Cluster-driven dynamical arrest in concentrated lysozyme solutions

Journal of Physical Chemistry B **115**, 7227-7237 (2011)

Cárdenas M., Wacklin H., Campbell R.A., Nylander T. Structure of DNA-cationic surfactant complexes at hydrophobically modified and hydrophilic silica surfaces revealed by neutron reflectometry

Langmuir **27**, 12506-12514 (2011)

Chen M., Dong C., Penfold J., Thomas R.K., Smyth T.J.P., Perfumo A., Marchant R., Banat I.M., Stevenson P., Parry A., Tucker I., Campbell R.A. Adsorption of sophorolipid biosurfactants on their own and mixed with sodium dodecyl benzene sulfonate, at the air/water interface

Langmuir **27**, 8854-8866 (2011)

Cousin F., Gummel J., Combet S., Boué F. The model Lysozyme-PSSNa system for electrostatic complexation: Similarities and differences with complex coacervation

Advances in Colloid and Interface Science **167**, 71-84 (2011)

de Oliveira R.J., Brown P., Correia G.B., Rogers S.E., Heenan R., Grillo I., Galembeck A., Eastoe J. Photoreactive surfactants: A facile and clean route to oxide and metal nanoparticles in reverse micelles

Langmuir **27**, 9277-9284 (2011)

Demé B., Zemb T. Hydration forces between bilayers in the presence of dissolved or surface-linked sugars  
Current Opinion in Colloid & Interface Science **16**, 584-591 (2011)

Diethert A., Metwalli E., Meier R., Zhong Q., Campbell R.A., Cubitt R., Müller-Buschbaum P. *In situ* neutron reflectometry study of the near-surface solvent concentration profile during solution casting

Soft Matter **7**, 6648-6659 (2011)

Doshi N., Cinacchi G., van Duijneveldt J.S., Cosgrove T., Prescott S.W., Grillo I., Phipps J., Gittins D.I. Structure of colloidal sphere-plate mixtures

Journal of Physics Condensed Matter **23**, 194109-1-194109-10 (2011)

Eyssautier J., Levitz P., Espinat D., Jestin J., Gummel J., Grillo I., Barré L. Insight into asphaltene nanoaggregate structure inferred by small angle neutron and X-ray scattering  
Journal of Physical Chemistry B **115**, 6827-6837 (2011)

Fabelo O., Cañadillas-Delgado L., Puente Orench I., Rodríguez-Velamazán J.A., Campo J., Rodríguez-Carvajal J. Low temperature neutron diffraction studies in  $[\text{Mn}_3(\text{suc})_2(\text{ina})_2]_n$ : An homometallic molecular 3D ferrimagnet  
Inorganic Chemistry **50**, 7129-7135 (2011)

Fischer S., Exner A., Zielske K., Perlich J., Deloudi S., Steurer W., Lindner P., Förster S. Colloidal quasicrystals with 12-fold and 18-fold diffraction symmetry  
PNAS **108**, 1810-1814 (2011)

Follows D., Holt C., Thomas R.K., Tiberg F., Fragneto G., Nylander T. Co-adsorption of  $\beta$ -casein and calcium phosphate nanoclusters (CPN) at hydrophilic and hydrophobic solid-solution interfaces studied by neutron reflectometry  
Food Hydrocolloids **25**, 724-733 (2011)

Förster S., Fischer S., Zielske K., Schellbach C., Sztucki M., Lindner P., Perlich J. Calculation of scattering-patterns of ordered nano- and mesoscale materials  
Advances in Colloid and Interface Science **163**, 53-83 (2011)

Freund A.K., Yu D.H. Optimisation and fabrication of a composite pyrolytic graphite monochromator for the *Pelican* instrument at the ANSTO OPAL reactor  
Nuclear Instruments and Methods in Physics Research A **634**, S75-S80 (2011)

Ghugare S.V., Chiessi E., Fink R., Gerelli Y., Scotti A., Deriu A., Carrot G., Paradossi G. Structural investigation on thermoresponsive PVA/poly(methacrylate-*co*-*N*-isopropylacrylamide) microgels across the volume phase transition  
Macromolecules **44**, 4470-4478 (2011)

Gordon G.V., Schmidt R.G., Quintero M., Benton N.J., Cosgrove T., Krukonis V.J., Williams K., Wetmore P.M. Impact of polymer molecular weight on the dynamics of poly(dimethylsiloxane)-polysilicate nanocomposites  
Macromolecules **43**, 10132-10142 (2010)

Griffiths P.C., Paul A., Apostolovic B., Klok H.A., De Luca E., King S.M., Heenan R.K. Conformational consequences of cooperative binding of a coiled-coil peptide motif to poly(N-(2-hydroxypropyl) methacrylamide) HPMA copolymers  
Journal of Controlled Release **153**, 173-179 (2011)

Grillo I., Penfold J. Self-assembly of mixed anionic and nonionic surfactants in aqueous solution  
Langmuir **27**, 7453-7463 (2011)

Gröhn F. Soft matter nanoparticles with various shapes and functionalities can form through electrostatic self-assembly

Soft Matter **6**, 4296-4302 (2010)

Haverkate L.A., Zbiri M., Johnson M.R., Demé B., Mulder F.M., Kearley G.J. Conformation, defects, and dynamics of a discotic liquid crystal and their influence on charge transport  
Journal of Physical Chemistry B **115**, 13809-13816 (2011)

Hellsing M.S., Rennie A.R., Hughes A.V. Adsorption of aerosol-OT to sapphire: Lamellar structures studied with neutrons  
Langmuir **27**, 4669-4678 (2011)

Heunemann P., Prévost S., Grillo I., Marino C.M., Meyer J., Gradzielski M. Formation and structure of slightly anionically charged nanoemulsions obtained by the phase inversion concentration (PIC) method  
Soft Matter **7**, 5697-5710 (2011)

Hoffmann I., Heunemann P., Prévost S., Schweins R., Wagner N.J., Gradzielski M. Self-aggregation of mixtures of oppositely charged polyelectrolytes and surfactants studied by rheology, dynamic light scattering and small-angle neutron scattering  
Langmuir **27**, 4386-4396 (2011)

Jangher A., Griffiths P.C., Paul A., King S.M., Heenan R.K., Schweins R. Polymeric micelle disruption by cosolvents and anionic surfactants  
Colloids and Surfaces A **391**, 88-94 (2011)

Jouault N., Nguyen R., Rawiso M., Giuseppone N., Buhler E. SANS, SAXS, and light scattering investigations of pH-responsive dynamic combinatorial mesophases  
Soft Matter **7**, 4787-4800 (2011)

Justino L.L.G., Ramos M.L., Knaapila M., Marques A.T., Kudla C.J., Scherf U., Almásy L., Schweins R., Burrows H.D., Monkman A.P. Gel formation and interpolymer alkyl chain interactions with Poly(9,9-dioctylfluorene-2,7-diyl) (PFO) in toluene solution: Results from NMR, SANS, DFT, and semiempirical calculations and their implications for PFO  $\beta$ -phase formation  
Macromolecules **44**, 334-343 (2011)

Karg M., Wellert S., Prévost S., Schweins R., Dewhurst C., Liz-Marzán L.M., Hellweg T. Well defined hybrid PNIPAM core-shell microgels: Size variation of the silica nanoparticle core  
Colloid and Polymer Science **289**, 699-709 (2011)

Kaye M.D., Schmalzl K., Nibali V.C., Tarek M., Rheinstädter M.C. Ethanol enhances collective dynamics of lipid membranes  
Physical Review E **83**, 050907-1-050907-4 (2011)

Klostermann M., Foster T., Schweins R., Lindner P., Glatter O., Strey R., Sottmann T. Microstructure of supercritical CO<sub>2</sub>-in-water microemulsions: A systematic contrast variation study  
Physical Chemistry - Chemical Physics **13**, 20289-20301 (2011)

Knaapila M., Bright D.W., Nehls B.S., Garamus V.M., Almásy L., Schweins R., Scherf U., Monkman A.P. Development of intermolecular structure and beta-phase of random poly[9,9-bis(2-ethylhexyl)fluorene]-co-(9,9-dioctylfluorene) in methylcyclohexane

Macromolecules **44**, 6453-6460 (2011)

Knaapila M., Brighty D.W., Stepanyan R., Torkkeli M., Almásy L., Schweins R., Vainio U., Preis E., Galbrecht F., Scherf U., Monkman A.P. Network structure of polyfluorene sheets as a function of alkyl side chain length

Physical Review E **83**, 051803-1-051803-11 (2011)

Li X., Zamponi M., Hong K., Porcar L., Shew C.Y., Jenkins T., Liu E., Smith G.S., Herwig K.W., Liu Y., Chen W.R. pH Responsiveness of polyelectrolyte dendrimers: A dynamical perspective

Soft Matter **7**, 618-622 (2011)

Lindner P., Schweins R., Campbell R.A. Sample environment: Soft matter sample environment for small-angle neutron scattering and neutron reflectometry

In "Neutrons in Soft Matter" Imae T. et al. Eds. (2011, Wiley) pp. 383-414

Linton P., Rennie A.R., Alfredsson V. Evolution of structure and composition during the synthesis of mesoporous silica SBA-15 studied by small-angle neutron scattering

Solid State Sciences **13**, 793-799 (2011)

Liu Y., Porcar L., Chen J., Chen W.R., Falus P., Faraone A., Fratini E., Hong K., Baglioni P. Lysozyme protein solution with an intermediate range order structure

Journal of Physical Chemistry B **115**, 7238-7247 (2011)

Lonetti B., Camargo M., Stellbrink J., Likos C.N., Zaccarelli E., Willner L., Lindner P., Richter D. Ultrasoft colloid-polymer mixtures: Structure and phase diagram

Physical Review Letters **106**, 228301-1-228301-4 (2011)

López-Cabarcos E., Rubio-Retama J. Molecular dynamics and macroscopic properties of magnetic microgels

Journal of Physics : Conference Series **325**, 012004-1-012004-6 (2011)

Lund R., Willner L., Pipich V., Grillo I., Lindner P., Colmenero J., Richter D. Equilibrium chain exchange kinetics of diblock copolymer micelles: Effect of morphology

Macromolecules **44**, 6145-6154 (2011)

Manet S., Lecchi A., Impéror-Clerc M., Zholobenko V., Durand D., Oliveira C.L.P., Pedersen J.S., Grillo I., Meneau F., Rochas C. Structure of micelles of a nonionic block copolymer determined by SANS and SAXS

Journal of Physical Chemistry B **115**, 11318-11329 (2011)

Manet S., Schmitt J., Impéror-Clerc M., Zholobenko V., Durand D., Oliveira C.L.P., Pedersen J.S., Gervais C., Baccile N., Babonneau F., Grillo I., Meneau F., Rochas C. Kinetics of the formation of 2D-hexagonal silica nanostructured materials by nonionic block copolymer templating in solution

Journal of Physical Chemistry B **115**, 11330-11344 (2011)

Montes H., Chaussée T., Papon A., Lequeux F., Guy L. Particles in model filled rubber: Dispersion and mechanical properties

European Physical Journal E **31**, 263-268 (2010)

- Morfin I., Buhler E., Cousin F., Grillo I., Boué F. Rodlike complexes of a polyelectrolyte (hyaluronan) and a protein (lysozyme) observed by SANS  
*Biomacromolecules* **12**, 859-870 (2011)
- Penfold J., Chen M., Thomas R.K., Dong C., Smyth T.J.P., Perfumo A., Marchant R., Banat I.M., Stevenson P., Parry A., Tucker I., Grillo I. Solution self-assembly of the sophorolipid biosurfactant and its mixture with anionic surfactant sodium dodecyl benzene sulfonate  
*Langmuir* **27**, 8867-8877 (2011)
- Perry C., Hébraud P., Gernigon V., Brochon C., Lapp A., Lindner P., Schlatter G. Pluronic and beta-cyclodextrin in water: From swollen micelles to self-assembled crystalline platelets  
*Soft Matter* **7**, 3502-3512 (2011)
- Pérez-Aparicio R., Alvarez F., Arbe A., Willner L., Richter D., Falus P., Colmenero J. Chain dynamics of unentangled poly(ethylene-*alt*-propylene) melts by means of neutron scattering and fully atomistic molecular dynamics simulations  
*Macromolecules* **44**, 3129-3139 (2011)
- Prévost S., Riemer S., Fischer W., Haag R., Bottcher C., Gummel J., Grillo I., Appavou M.S., Gradzielski M. Colloidal structure and stability of DNA/polycations polyplexes investigated by small angle scattering  
*Biomacromolecules* **12**, 4272-4282 (2011)
- Qazi S.J.S., Rennie A.R., Tucker I., Penfold J., Grillo I. Alignment of dispersions of plate-like colloidal particles of Ni(OH)<sub>2</sub> induced by elongational flow  
*Journal of Physical Chemistry B* **115**, 3271-3280 (2011)
- Qazi S.J.S., Rennie A.R., Tucker I., Penfold J., Grillo I. Impact of Ni(OH)<sub>2</sub> platelike particles on lamellar surfactant mesophases and the orientation of their mixtures under elongational flow  
*Journal of Physical Chemistry B* **115**, 10413-10424 (2011)
- Richter A.G., Dergunov S.A., Ganus B., Thomas Z., Pingali S.V., Urban V., Liu Y., Porcar L., Pinkhassik E. Scattering studies of hydrophobic monomers in liposomal bilayers: An expanding shell model of monomer distribution  
*Langmuir* **27**, 3792-3797 (2011)
- Roger K., Olsson U., Zackrisson-Oskolkova M., Lindner P., Cabane B. Superswollen microemulsions stabilized by shear and trapped by a temperature quench  
*Langmuir* **27**, 10447-10454 (2011)
- Roosen-Runge F., Hennig M., Zhang F., Jacobs R.M.J., Sztucki M., Schober H., Seydel T., Schreiber F. Protein self-diffusion in crowded solutions  
*Proceedings of the National Academy of Sciences of the USA* **108**, 11815-11820 (2011)
- Ruthard C., Schmidt M., Gröhn F. Porphyrin-polymer-networks, worms and nanorods: pH-triggerable hierarchical self-assembly  
*Macromolecular Rapid Communications* **32**, 706-711 (2011)

- Sanz A., Nogales A., Puente-Orench I., Jiménez-Ruiz M., Ezquerra T.A. Detection of early stage precursor during formation of plastic crystal ethanol from the supercooled liquid state: A simultaneous dielectric spectroscopy with neutron diffraction study  
*Physical Review Letters* **107**, 025502-1-025502-4 (2011)
- Schneck E., Demé B., Gege C., Tanaka M. Membrane adhesion via homophilic saccharide-saccharide interactions investigated by neutron scattering  
*Biophysical Journal* **100**, 2151-2159 (2011)
- Schneider G.J., Nusser K., Willner L., Falus P., Richter D. Dynamics of entangled chains in polymer nanocomposites  
*Macromolecules* **44**, 5857-5860 (2011)
- Seydel T., Knoll W., Greving I., Dicko C., Koza M.M., Krasnov I., Müller M. Increased molecular mobility in humid silk fibers under tensile stress  
*Physical Review E* **83**, 016104-1-016104-9 (2011)
- Shen H.H., Lin T.W., Thomas R.K., Taylor D.J.F., Penfold J. Surfactin structures at interfaces and in solution: The effect of pH and cations  
*Journal of Physical Chemistry B* **115**, 4427-4435 (2011)
- Shin T.G., Mütter D., Meissner J., Paris O., Findenegg G.H. Structural characterization of surfactant aggregates adsorbed in cylindrical silica nanopores  
*Langmuir* **27**, 5252-5263 (2011)
- Spehr T.L., Frick B., Zamponi M., Stühn B. Dynamics of water confined to reverse AOT micelles  
*Soft Matter* **7**, 5745-5755 (2011)
- Tabor R.F., Lockie H., Chan D.Y.C., Grieser F., Grillo I., Mutch K.J., Dagastine R.R. Structural forces in soft matter systems: Unique flocculation pathways between deformable droplets  
*Soft Matter* **7**, 11334-11344 (2011)
- Tatou M., Genix A.C., Imaz A., Forcada J., Banc A., Schweins R., Grillo I., Oberdisse J. Reinforcement and polymer mobility in silica-latex nanocomposites with controlled aggregation  
*Macromolecules* **44**, 9029-9039 (2011)
- Telling M.T.F., Neylon C., Clifton L., Howells S., van Eijck L., García Sakai V. Thermal motion in the multi-subunit protein, apoferritin, as probed by high energy resolution neutron spectroscopy  
*Soft Matter* **7**, 6934-6941 (2011)
- Tucker I., Penfold J., Thomas R.K., Dong C.C., Golding S., Gibson C., Grillo I. The adsorption and self-assembly of mixtures of alkylbenzene sulfonate isomers and the role of divalent electrolyte  
*Langmuir* **27**, 6674-6682 (2011)
- Valiente M., Cortés A.B., Gradzielski M., Noirez L., Schweins R. A SANS investigation of micelles in mixtures of cetyltrimethylammonium bromide (CTAB)/octyl- $\beta$ -D-glucopyranoside (C8G1) in water/glycerol solvent  
*Colloids and Surfaces A* **375**, 117-123 (2011)



- Vorobiev A., Major J., Dosch H., Müller-Buschbaum P., Falus P., Felcher G.P., te Velthuis S.G.E. Phase and microphase separation of polymer thin films dewetted from silicon-a spin-echo resolved grazing incidence neutron scattering study  
*Journal of Physical Chemistry B* **115**, 5754-5765 (2011)
- Wacklin H.P. Composition and asymmetry in supported membranes formed by vesicle fusion  
*Langmuir* **27**, 7698-7707 (2011)
- Wadsater M., Simonsen J.B., Lauridsen T., Grytli Tveten E., Naur P., Bjørnholm T., Wacklin H., Mortensen K., Arleth L., Cárdenas M. Aligning nanodiscs at the air-water interface, a neutron reflectivity study  
*Langmuir* **27**, 15065-15073 (2011)
- Walz M., Gerth S., Falus P., Klimczak M., Metzger T.H., Magerl A. Nanoscale structures and dynamics of a boundary liquid layer  
*Journal of Physics Condensed Matter* **23**, 324102-1-324102-9 (2011)
- White J.W., Lin J.M., Ang J.C., Campbell R.A., Laux V., Haertlein M., Fragneto G. Nanostructure of the "protein-nanoparticle corona" an indicator of toxicity?  
In "2010 International Conference on Nanoscience and Nanotechnology (ICONN)" (2011, IEEE) pp. 289-292
- Wildes A., Theodorakopoulos N., Valle-Orero J., Cuesta-López S., Garden J.L., Peyrard M. Structural correlations and melting of B-DNA fibers  
*Physical Review E* **83**, 061923-1-061923-11 (2011)
- Wildes A., Theodorakopoulos N., Valle-Orero J., Cuesta-López S., Garden J.L., Peyrard M. Thermal denaturation of DNA studied with neutron scattering  
*Physical Review Letters* **106**, 048101-1-048101-4 (2011)
- Wipf R., Kraska M., Spehr T., Nieberle J., Frey H., Stühn B. Interaction between a water-in-oil microemulsion and a linear-dendritic poly(propylene oxide)-polyglycerol block copolymer  
*Soft Matter* **7**, 10879-10888 (2011)
- Wu B., Li X., Do C., Kim T.H., Shew C.Y., Liu Y., Yang J., Hong K., Porcar L., Chen C.Y., Liu E.L., Smith G.S., Herwig K.W., Chen W.R. Spatial distribution of intra-molecular water and polymeric components in polyelectrolyte dendrimers revealed by small angle scattering investigations  
*Journal of Chemical Physics* **135**, 144903-1-144903-9 (2011)
- Yaşayan G., Saeed A.O., Fernández-Trillo F., Allen S., Davies M.C., Jangher A., Paul A., Thurecht K.J., King S.M., Schweins R., Griffiths P.C., Magnusson J.P., Alexander C. Responsive hybrid block co-polymer conjugates of proteins-controlled architecture to modulate substrate specificity and solution behaviour  
*Polymer Chemistry* **2**, 1567-1578 (2011)
- Zehm D., Laschewsky A., Heunemann P., Gradzielski M., Prévost S., Liang H., Rabe J.P., Lutz J.F. Synthesis and self-assembly of amphiphilic semi-brush and dual brush block copolymers in solution and on surfaces  
*Polymer Chemistry* **2**, 137-147 (2011)

Zeng X., Kieffer R., Glettner B., Nürnberger C., Liu F., Pelz K., Prehm M., Baumeister U., Hahn H., Lang H., Gehring G.A., Weber C.H.M., Hobbs J.K., Tschierske C., Ungar G. Complex multicolor tilings and critical phenomena in tetraphilic liquid crystals  
*Science* **331**, 1302-1306 (2011)

Zhang B., Wepf R., Fischer K., Schmidt M., Besse S., Lindner P., King B.T., Sigel R., Schurtenberger P., Talmon Y., Ding Y., Kröger M., Halperin A., Schlüter A.D. The largest synthetic structure with molecular precision: Towards a molecular object  
*Angewandte Chemie International Edition* **50**, 737-740 (2011)

Zhang X.L., Penfold J., Thomas R.K., Tucker I.M., Petkov J.T., Bent J., Cox A. Adsorption behavior of hydrophobin and hydrophobin/surfactant mixtures at the solid-solution interface  
*Langmuir* **27**, 10464-10474 (2011)

Zhang X.L., Penfold J., Thomas R.K., Tucker I.M., Petkov J.T., Bent J., Cox A., Campbell R.A. Adsorption behavior of hydrophobin and hydrophobin/surfactant mixtures at the air-water interface  
*Langmuir* **27**, 11316-11323 (2011)

Zhang X.L., Penfold J., Thomas R.K., Tucker I.M., Petkov J.T., Bent J., Cox A., Grillo I. Self-assembly of hydrophobin and hydrophobin/surfactant mixtures in aqueous solution  
*Langmuir* **27**, 10514-10522 (2011)

## **Theory**

Benderskii V.A., Kats E.I. Dissipative tunneling in nanosystems  
*Journal of Experimental and Theoretical Physics* **113**, 562-574 (2011)

Carpenter J.M., Lander G.H. 40 years of neutron scattering: A perspective  
*Neutron News* **21**, 10-12 (2010)

Chamoire A., Viennois R., Tedenac J.C., Koza M.M., Gascoin F. Antimony-based compounds with the anti-Th<sub>3</sub>P<sub>4</sub> structure as potential high-temperature thermoelectric materials  
*Journal of Electronic Materials* **40**, 1171-1175 (2011)

Clusel M., Corwin E.I. Unfolding proteins with an atomic force microscope: Force-fluctuation-induced nonexponential kinetics  
*Physical Review E* **84**, 041920-1-041920-5 (2011)

Dolganov P.V., Zhilin V.M., Dolganov V.K., Kats E.I. Manifold of polar smectic liquid crystals with spatial modulation of the order parameter  
*Physical Review E* **83**, 061705-1-061705-7 (2011)

Dzyaloshinskii I. Magnetoelectric to multiferroic phase transitions  
*Europhysics Letters* **96**, 17001-p1-17001-p2 (2011)

Gönnenwein F. 35 years of fission research at the ILL

In "Seminar on Fission" Wagemans C. et al. Eds. (2010, World Scientific) pp. 3-29

Gu B., Ziman T., Guo G.Y., Nagaosa N., Maekawa S. Giant spin Hall effect of Au films with Pt impurities: Surface-assisted skew scattering  
Journal of Applied Physics **109**, 07C502-1-07C502-3 (2011)

Kawabata S., Tanaka Y., Golubov A.A., Vasenko A.S., Kashiwaya S., Asano Y. Tunneling Hamiltonian description of the atomic-scale  $0-\pi$  transition in superconductor/ferromagnetic-insulator junctions  
Physica C **471**, 1199-1201 (2011)

Lauter H., Apaja V., Kalinin I., Kats E., Koza M., Krotscheck E., Lauter V.V., Puchkov A.V. Observation of a superfluid component within solid helium  
Physical Review Letters **107**, 265301-1-265301-5 (2011)

Laver M., Forgan E.M. Magnetic flux lines in type-II superconductors and the 'hairy ball' theorem  
Nature Communications **1**, 1-4 (2010)

Nozières P. Superfluidity and Bose Einstein condensation yesterday, today and tomorrow  
Journal of Low Temperature Physics **162**, 89-95 (2011)

Petukhov A.K., Pignol G., Golub R. Comment on "Limits on possible new nucleon monopole-dipole interactions from the spin relaxation rate of polarized  $^3\text{He}$  gas"  
Physical Review D **84**, 058501-1-058501-2 (2011)

Sordi G., Haule K., Tremblay A.M.S. Mott physics and first-order transition between two metals in the normal-state phase diagram of the two-dimensional Hubbard model  
Physical Review B **84**, 075161-1-075161-25 (2011)

Struth B., Hyun K., Kats E., Meins T., Walther M., Wilhelm M., Grübel G. Observation of new states of liquid crystal 8CB under nonlinear shear conditions as observed via a novel and unique rheology/small-angle X-ray scattering combination  
Langmuir **27**, 2880-2887 (2011)

Velgosh S., Andriyevsky B., Karbovnyk I., Bolesta I., Bovgyra O., Ciepluch-Trojanek W., Kityk I.V., Popov A.I. First-principles simulations of the electronic density of states for superionic  $\text{Ag}_2\text{CdI}_4$  crystals  
Solid State Ionics **188**, 31-35 (2011)

Viennois R., Koza M.M., Jund P., Tedenac J.C. Lattice dynamics of thermoelectric  $\text{La}_4\text{Sb}_3$   
Calphad **35**, 636-638 (2011)

Whitney R.S., Clusel M., Ziman T. Temperature can enhance coherent oscillations at a Landau-Zener transition  
Physical Review Letters **107**, 210402-1-210402-5 (2011)

## Magnetic Excitations

- Arango Y.C., Vavilova E., Abdel-Hafiez M., Janson O., Tsirlin A.A., Rosner H., Drechsler S.L., Weil M., Nénert G., Klingeler R., Volkova O., Vasiliev A., Kataev V., Büchner B. Magnetic properties of the low-dimensional spin- $\frac{1}{2}$  magnet  $\alpha$ -Cu<sub>2</sub>As<sub>2</sub>O<sub>7</sub>  
Physical Review B **84**, 134430-1-134430-9 (2011)
- Arndt J., Stockert O., Schmalzl K., Faulhaber E., Jeevan H., Geibel C., Schmidt W., Loewenhaupt M., Steglich F. Spin fluctuations in normal state CeCu<sub>2</sub>Si<sub>2</sub> on approaching the quantum critical point  
Physical Review Letters **106**, 246401-1-246401-4 (2011)
- Arutyunov K.Y., Auraneva H.P., Vasenko A.S. Spatially resolved measurement of nonequilibrium quasiparticle relaxation in superconducting Al  
Physical Review B **83**, 104509-1-104509-7 (2011)
- Atanasov M., Delley B., Neese F., Tregenna-Piggott P.L., Sigrist M. Theoretical insights into the magnetostructural correlations in Mn<sub>3</sub>-based single-molecule magnets  
Inorganic Chemistry **50**, 2112-2124 (2011)
- Babkevich P., Roessli B., Gvasaliya S.N., Regnault L.P., Freeman P.G., Pomjakushina E.V., Conder K., Boothroyd A.T. Spin anisotropy of the resonance peak in superconducting FeSe<sub>0.5</sub>Te<sub>0.5</sub>  
Physical Review B **83**, 180506-1-180506-4 (2011)
- Baidya S., Sanyal P., Das H., Roessli B., Chatterji T., Saha-Dasgupta T. Understanding neutron scattering data in YMn<sub>2</sub>O<sub>5</sub>: An effective spin Hamiltonian  
Physical Review B **84**, 054444-1-054444-9 (2011)
- Baker M.L., Bianchi A., Carretta S., Collison D., Docherty R.J., McInnes E.J.L., McRobbie A., Muryn C.A., Mutka H., Piligkos S., Rancan M., Santini P., Timco G.A., Tregenna-Piggott P.L.W., Tuna F., Güdel H.U., Winpenny R.E.P. Varying spin state composition by the choice of capping ligand in a family of molecular chains: Detailed analysis of magnetic properties of chromium(III) horseshoes  
Dalton Transactions **40**, 2725-2734 (2011)
- Baker M.L., Piligkos S., Bianchi A., Carretta S., Collison D., McDouall J.J.W., McInnes E.J.L., Mutka H., Timco G.A., Tuna F., Vadivelu P., Weihe H., Güdel H.U., Winpenny R.E.P. Modification of the magnetic properties of a heterometallic wheel by inclusion of a Jahn-Teller distorted Cu(II) ion  
Dalton Transactions **40**, 8533-8539 (2011)
- Boothroyd A.T., Babkevich P., Prabhakaran D., Freeman P.G. An hour-glass magnetic spectrum in an insulating, hole-doped antiferromagnet  
Nature **471**, 341-344 (2011)
- Böni P., Roessli B., Hradil K. Inelastic neutron and X-ray scattering from incommensurate magnetic systems  
Journal of Physics Condensed Matter **23**, 254209-1-254209-9 (2011)
- Bourdarot F., Hassinger E., Raymond S., Aoki D., Taufour V., Regnault L.P., Flouquet J. Precise study of the resonance at Q<sub>0</sub>=(1,0,0) in URu<sub>2</sub>Si<sub>2</sub>  
Journal of the Physical Society of Japan **79**, 064719-1-064719-8 (2010)

- Czapla M., Pelka R., Zieliński P.M., Budziak A., Balanda M., Makarewicz M., Pacyna A., Wasiutyński T., Miyazaki Y., Nakazawa Y., Inaba A., Sorai M., Pratt F.L., Podgajny R., Korzeniak T., Sieklucka B. Critical behavior of two molecular magnets probed by complementary experiments  
Physical Review B **82**, 094446-1-094446-9 (2010)
- Deen P.P., Petrenko O.A., Balakrishnan G., Rainford B.D., Ritter C., Capogna L., Mutka H., Fennell T. Spin dynamics in the hyperkagome compound  $\text{Gd}_3\text{Ga}_5\text{O}_{12}$   
Physical Review B **82**, 174408-1-174408-5 (2010)
- de Vries M.A., Harrison A. Model's reputation restored  
Nature **468**, 908-909 (2010)
- Dreiser J., Schnegg A., Holldack K., Pedersen K.S., Schau-Magnussen M., Nehr Korn J., Tregenna-Piggott P., Mutka H., Weihe H., Bendix J., Waldmann O. Frequency-domain Fourier-transform terahertz spectroscopy of the single-molecule magnet  $(\text{NEt}_4)[\text{Mn}_2(5\text{-Brsalen})_2(\text{MeOH})_2\text{Cr}(\text{CN})_6]$   
Chemistry - A European Journal **17**, 7492-7498 (2011)
- Enderle M., Fåk B., Mikeska H.J., Kremer R.K. Enderle et al. Reply to "Comment on "Two-spinon and four-spinon continuum in a frustrated ferromagnetic spin-1/2 chain"  
Physical Review Letters **106**, 219702-1 (2011)
- Fennell T., Piatek J.O., Stephenson R.A., Nilsen G.J., Rønnow H.M. Spangolite: An  $s=1/2$  maple leaf lattice antiferromagnet?  
Journal of Physics Condensed Matter **23**, 164201-1-164201-6 (2011)
- Freeman P.G., Prabhakaran D., Nakajima K., Stunault A., Enderle M., Niedermayer C., Frost C.D., Yamada K., Boothroyd A.T. Low-energy quasi-one-dimensional spin dynamics in charge-ordered  $\text{La}_{2-x}\text{Sr}_x\text{NiO}_4$   
Physical Review B **83**, 094414-1-094414-6 (2011)
- Gardner J.S., Ehlers G., Fouquet P., Farago B., Stewart J.R. Slow and static spin correlations in  $\text{Dy}_{2+x}\text{Ti}_{2-x}\text{O}_{7-\delta}$   
Journal of Physics Condensed Matter **23**, 164220-1-164220-4 (2011)
- Grünwald A.T.D., Wildes A.R., Schmidt W., Tartakovskaya E.V., Nowak G., Theis-Bröhl K., Schreyer A. Neutron scattering measurements of magnetic excitations in Gd/Y superlattices  
Applied Physics Letters **96**, 192505-1-192505-3 (2010)
- Headings N.S., Hayden S.M., Kulda J., Hari Babu N., Cardwell D.A. Spin anisotropy of the magnetic excitations in the normal and superconducting states of optimally doped  $\text{YBa}_2\text{Cu}_3\text{O}_{6.9}$  studied by polarized neutron spectroscopy  
Physical Review B **84**, 104513-1-104513-10 (2011)
- Hong T., Gvasaliya S.N., Herringer S., Turnbull M.M., Landee C.P., Regnault L.P., Boehm M., Zheludev A. Dynamics of the two-dimensional  $S=\frac{1}{2}$  dimer system  $(\text{C}_5\text{H}_6\text{N}_2\text{F})_2\text{CuCl}_4$   
Physical Review B **83**, 052401-1-052401-4 (2011)
- Inosov D.S., Bourges P., Ivanov A., Prokofiev A., Bauer E., Keimer B. Dispersion and damping of zone-boundary magnons in the noncentrosymmetric superconductor  $\text{CePt}_3\text{Si}$

Journal of Physics Condensed Matter **23**, 455704-1-455704-5 (2011)

Jeong M., Bert F., Mendels P., Duc F., Trombe J.C., de Vries M.A., Harrison A. Field-induced freezing of a quantum spin liquid on the Kagome lattice

Physical Review Letters **107**, 237201-1-237201-5 (2011)

Kimber S.A.J., Mutka H., Chatterji T., Hofmann T., Henry P.F., Bordallo H.N., Argyriou D.N., Attfield J.P. Metamagnetism and soliton excitations in the modulated ferromagnetic Ising chain  $\text{CoV}_2\text{O}_6$

Physical Review B **84**, 104425-1-104425-8 (2011)

Klotins E., Popov A.I., Pankratov V., Shirmane L., Engers D. Polar nanoregions in  $\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3$  (PMN): Insights from a supercell approach

Central European Journal of Physics **9**, 438-445 (2011)

Li Y., Balédent V., Yu G., Barišič N., Hradil K., Mole R.A., Sidis Y., Steffens P., Zhao X., Bourges P., Greven M. Hidden magnetic excitation in the pseudogap phase of a high- $T_c$  superconductor

Nature **468**, 283-285 (2010)

Li S., Lu X., Wang M., Luo H.Q., Wang Mi., Zhang C., Faulhaber E., Regnault L.P., Singh D., Dai P. Effect of the in-plane magnetic field on the neutron spin resonance in optimally doped  $\text{FeSe}_{0.4}\text{Te}_{0.6}$  and  $\text{BaFe}_{1.9}\text{Ni}_{0.1}\text{As}_2$  superconductors

Physical Review B **84**, 024518-1-024518-4 (2011)

Loire M., Simonet V., Petit S., Marty K., Bordet P., Lejay P., Ollivier J., Enderle M., Steffens P., Ressouche E., Zorko A., Ballou R. Parity-broken chiral spin dynamics in  $\text{Ba}_3\text{NbFe}_3\text{Si}_2\text{O}_{14}$

Physical Review Letters **106**, 207201-1-207201-4 (2011)

Marcinkova A., Hansen T.C., Curfs C., Margadonna S., Bos J.W.G. Nd-induced Mn spin-reorientation transition in  $\text{NdMnAsO}$

Physical Review B **82**, 174438-1-174438-7 (2010)

Mazet T., Ihou-Mouko H., Marêché J.F., Malaman B. Short-range magnetic order, irreversibility and giant magnetoresistance near the triple points in the  $(x, T)$  magnetic phase diagram of  $\text{ZrMn}_6\text{Sn}_{6-x}\text{Ga}_x$

European Physical Journal B **74**, 487-497 (2010)

Morozkin A.V., Isnard O., Granovsky S.A. Magnetic structure of the  $\text{Mn}_5\text{Si}_3$ -type  $\text{Er}_5\text{Si}_3$  compound

Intermetallics **19**, 871-875 (2011)

Mühlbauer S., Pfleiderer C., Böni P., Forgan E.M., Brandt E.H., Wiedenmann A., Keiderling U., Behr G. Time-resolved stroboscopic neutron scattering of vortex lattice dynamics in superconducting niobium

Physical Review B **83**, 184502-1-184502-12 (2011)

Naimi S., Audi G., Beck D., Blaum K., Böhm C., Borgmann C., Breitenfeldt M., George S., Herfurth F., Herlert A., Kowalska M., Kreim S., Lunney D., Neidherr D., Rosenbusch M., Schwarz S., Schweikhard L., Zuber K. Critical-point boundary for the nuclear quantum phase transition near  $A=100$  from mass measurements of  $^{96,97}\text{Kr}$

Physical Review Letters **105**, 032502-1-032502-4 (2010)

- Nilsen G.J., Coomer F.C., de Vries M.A., Stewart J.R., Deen P.P., Harrison A., Rønnow H.M. Pair correlations, short-range order, and dispersive excitations in the quasi-kagome quantum magnet volborthite  
Physical Review B **84**, 172401-1-172401-4 (2011)
- Okorokov A.I. Investigation of triple spin correlations and spin dynamics in ferromagnets  
Crystallography Reports **56**, 1131-1138 (2011)
- Panarin J., Raymond S., Lapertot G., Flouquet J., Mignot J.M. Effects of nonmagnetic La impurities on the spin resonance of  $Ce_{1-x}La_xCoIn_5$  single crystals as seen via inelastic neutron scattering  
Physical Review B **84**, 052505-1-052505-4 (2011)
- Pappas C., Lelièvre-Berna E., Bentley P., Falus P., Fouquet P., Farago B. Magnetic fluctuations and correlations in MnSi: Evidence for a chiral skyrmion spin liquid phase  
Physical Review B **83**, 224405-1-224405-10 (2011)
- Park J.T., Friemel G., Li Y., Kim J.H., Tsurkan V., Deisenhofer J., Krug von Nidda H.A., Loidl A., Ivanov A., Keimer B., Inosov D.S. Magnetic resonant mode in the low-energy spin-excitation spectrum of superconducting  $Rb_2Fe_4Se_5$  single crystals  
Physical Review Letters **107**, 177005-1-177005-5 (2011)
- Peddis D., Yaacoub N., Ferretti M., Martinelli A., Piccaluga G., Musinu A., Cannas C., Navarra G., Grenèche J.M., Fiorani D. Cationic distribution and spin canting in  $CoFe_2O_4$  nanoparticles  
Journal of Physics Condensed Matter **23**, 426004-1-426004-8 (2011)
- Raymond S., Panarin J., Lapertot G., Flouquet J. Evolution of the spin resonance of  $CeCoIn_5$  as a function of magnetic field and La substitution  
Journal of the Physical Society of Japan **80**, SB023-1SB023-4 (2011)
- Rodríguez-Bianco C., Rodríguez-Velamazán J.A., Campo J., Gillon B., Sánchez Costa J., Gamez P., Luzón J. Spin delocalization in the molecular manganese tetra-helicate cluster:  $[Mn_3L_4](ClO_4)_2(H_2O)_2$   
Journal of Physics : Conference Series **325**, 012009-1-012009-4 (2011)
- Sánchez-Alarcos V., Recarte V., Pérez-Landazábal J.I., Chapelon J.R., Rodríguez-Velamazán J.A. Structural and magnetic properties of Cr-doped Ni-Mn-In metamagnetic shape memory alloys  
Journal of Physics D **44**, 395001-1-395001-7 (2011)
- Spahr M., Nesper R., Ensling J., Gütlich P., Schenck A., Pinkpank M., Chatterji T., Ouladdiaf B. Magnetic ordering and spin dynamics of  $Ba_{1-x}Eu_xSi$  phases  
Zeitschrift für Anorganische und Allgemeine Chemie **637**, 825-833 (2011)
- Steffens P., Friedt O., Sidis Y., Link P., Kulda J., Schmalzl K., Nakatsuji S., Braden M. Magnetic excitations in the metallic single-layer ruthenates  $Ca_{2-x}Sr_xRuO_4$  studied by inelastic neutron scattering  
Physical Review B **83**, 054429-1-054429-12 (2011)
- Stewart J.R., Ehlers G., Mutka H., Fouquet P., Payen C., Lortz R. Spin dynamics, short-range order, and spin freezing in  $Y_{0.5}Ca_{0.5}BaCo_4O_7$   
Physical Review B **83**, 024405-1-024405-12 (2011)

Stewart J.R., Hillier A.D., Hillier J.M., Cywinski R. Structural and dynamical study of moment localization in  $\beta$ - $\text{Mn}_{1-x}\text{In}_x$   
Physical Review B **82**, 144439-1-144439-11 (2010)

Toledano P., Khalyavin D.D., Chapon L.C. Spontaneous toroidal moment and field-induced magnetotoroidic effects in  $\text{Ba}_2\text{CoGe}_2\text{O}_7$   
Physical Review B **84**, 094421-1-094421-4 (2011)

Zaharko O., Christensen N.B., Cervellino A., Tsurkan V., Maljuk A., Stuhr U., Niedermayer C., Yokaichiya F., Argyriou D.N., Boehm M., Loidl A. Spin liquid in a single crystal of the frustrated diamond lattice antiferromagnet  $\text{CoAl}_2\text{O}_4$   
Physical Review B **84**, 094403-1-094403-8 (2011)

Bourdarot F., Hassinger E., Raymond S., Aoki D., Taufour V., Flouquet J. Temperature dependence of energy gap in the superconducting state in  $\text{URu}_2\text{Si}_2$   
Journal of the Physical Society of Japan **79**, 094706-1-094706-4 (2010)

## Crystallography

Aguadero A., Alonso J.A., Martínez-Lope M.J., Fernández-Díaz M.T. Crystallo-chemical evolution of the  $\text{La}_2\text{ZnTiO}_6$  double perovskite upon reduction: A structural study  
Solid State Sciences **13**, 13-18 (2011)

Aguadero A., Falcón H., Campos-Martin J.M., Al-Zahrani S.M., Fierro J.L.G., Alonso J.A. An oxygen-deficient perovskite as selective catalyst in the oxidation of alkyl benzenes  
Angewandte Chemie International Edition **50**, 6557-6561 (2011)

Aguadero A., Martínez-Lope M.J., Pomjakushin V., Alonso J.A. Oxygen-deficient  $\text{R}_2\text{MoO}_{6-\delta}$  (R = Tb, Dy, Y, Ho, Er, Tm, Yb) with fluorite structure as potential anodes in solid oxide fuel cells  
European Journal of Inorganic Chemistry **2011**, 3226-3231 (2011)

Allix M., Alba M.D., Florian P., Fernandez-Carrion A.J., Suchomel M.R., Escudero A., Suard E., Becerro A.I. Structural elucidation of  $\beta$ - $(\text{Y},\text{Sc})_2\text{Si}_2\text{O}_7$ : Combined use of  $^{89}\text{Y}$  MAS NMR and powder diffraction  
Journal of Applied Crystallography **44**, 846-852 (2011)

Anderson K.M., Goeta A.E., Martin J.E., Mason S.A., McIntyre G.J., Sansam B.C.R., Wilkinson C., Steed J.W. Dominance of charge-assisted hydrogen bonding on short contacts and structures that crystallize with  $Z' > 1$   
Crystal Growth & Design **11**, 4904-4919 (2011)

Aurelio G., Bustingorry S., Sánchez R.D., Cuello G.J. Thermal expansion of layered cobaltites  $\text{Y}(\text{Ba}_{1-x}\text{Sr}_x)\text{Co}_2\text{O}_{5+\delta}$  with  $x = 0, 0.05$  and  $0.10$   
Journal of Physics Condensed Matter **23**, 315403-1-315403-9 (2011)



- Bailey A.S., Hughes R.W., Hubberstey P., Ritter C., Smith R.I., Gregory D.H. New ternary and quaternary barium nitride halides; Synthesis and crystal chemistry  
*Inorganic Chemistry* **50**, 9545-9553 (2011)
- Cervellino A., Gvasaliya S.N., Zaharko O., Roessli B., Rotaru G.M., Cowley R.A., Lushnikov S.G., Shaplygina T.A., Fernández-Díaz M.T. Diffuse scattering from the lead-based relaxor ferroelectric  $\text{PbMg}_{1/3}\text{Ta}_{2/3}\text{O}_3$   
*Journal of Applied Crystallography* **44**, 603-609 (2011)
- Chatterji T., Zbiri M., Hansen T.C. Negative thermal expansion in  $\text{ZnF}_2$   
*Applied Physics Letters* **98**, 181911-1-181911-3 (2011)
- Cole J.M., Bürgi H.B., McIntyre G.J. Distinction of disorder, classical and quantum vibrational contributions to atomic mean-square amplitudes in dielectric pentachloronitrobenzene  
*Physical Review B* **83**, 244202-1-244202-11 (2011)
- Colman R.H., Sinclair A., Wills A.S. Comparisons between haydeeite,  $\alpha\text{-Cu}_3\text{Mg}(\text{OD})_6\text{Cl}_2$ , and kapellasite,  $\alpha\text{-Cu}_3\text{Zn}(\text{OD})_6\text{Cl}_2$ , isostructural  $S=1/2$  kagome magnets  
*Chemistry of Materials* **22**, 5774-5779 (2010)
- Corbel G., Suard E., Lacorre P. Structural key of the thermal expansion and the oxide ionic conduction in derivatives of  $\text{La}_2\text{Mo}_2\text{O}_9$ : A temperature-controlled neutron diffraction study of  $\beta\text{-La}_{1.7}\text{Bi}_{0.3}\text{Mo}_2\text{O}_9$   
*Chemistry of Materials* **23**, 1288-1298 (2011)
- Dejoie C., Kunz M., Tamura N., Bousige C., Chen K., Teat S., Beavers C., Baerlocher C. Determining the energy-dependent X-ray flux variation of a synchrotron beamline using Laue diffraction patterns  
*Journal of Applied Crystallography* **44**, 177-183 (2011)
- Devred F., Reinhart G., Iles G.N., van der Klugt B., Adkins N.J., Bakker J.W., Nieuwenhuys B.E. Synchrotron X-ray microtomography of Raney-type nickel catalysts prepared by gas atomisation: Effect of microstructure on catalytic performance  
*Catalysis Today* **163**, 13-19 (2011)
- Dixon E., Hadermann J., Hayward M.A. The synthesis and complex anion-vacancy ordered structure of  $\text{La}_{0.33}\text{Sr}_{0.67}\text{MnO}_{2.42}$   
*Journal of Solid State Chemistry* **184**, 1791-1799 (2011)
- Dixon E., Hayward M.A. The topotactic reduction of  $\text{Sr}_3\text{Fe}_2\text{O}_5\text{Cl}_2$ -square planar Fe(II) in an extended oxyhalide  
*Inorganic Chemistry* **49**, 9649-9654 (2010)
- Dolci F., Napolitani E., Weidner E., Enzo S., Moretto P., Brunelli M., Hansen T.C., Fichtner M., Lohstroh W. Magnesium imide: Synthesis and structure determination of an unconventional alkaline earth imide from decomposition of magnesium amide  
*Journal of the American Chemical Society* **50**, 1116-1122 (2011)
- Dove M.T. The re-entrant phase transitions in crystalline malononitrile,  $\text{CH}_2(\text{CN})_2$ : A neutron powder diffraction study

Journal of Physics Condensed Matter **23**, 225402-1-225402-8 (2011)

Ecija A., Vidal K., Larrañaga A., Martinez-Amesti A., Ortega-San-Martín L., Arriortua M.I. Characterization of  $\text{Ln}_{0.5}\text{M}_{0.5}\text{FeO}_{3-\delta}$  (Ln=La, Nd, Sm; M=Ba, Sr) perovskites as SOFC cathodes  
Solid State Ionics **201**, 35-41 (2011)

Edelmann F.T. Lanthanides and actinides: Annual survey of their organometallic chemistry covering the year 2008  
Coordination Chemistry Reviews **255**, 1834-1920 (2011)

Esna du Plessis H., De Villiers J.P.R., Kruger G.J., Steuwer A., Brunelli M. Rietveld and pair distribution function study of Hägg carbide using synchrotron X-ray diffraction  
Journal of Synchrotron Radiation **18**, 266-271 (2011)

Euchner H., Mihalkovič M., Gähler F., Johnson M.R., Schober H., Rols S., Suard E., Bosak A., Ohhashi S., Tsai A.P., Lidin S., Pay Gómez C., Custers J., Paschen S., de Boissieu M. Anomalous vibrational dynamics in the  $\text{Mg}_2\text{Zn}_{11}$  phase  
Physical Review B **83**, 144202-1-144202-17 (2011)

Falenty A., Genov G., Hansen T.C., Kuhs W.F., Salamatina A.N. Kinetics of  $\text{CO}_2$ -hydrate formation from water frost at low temperatures: Experimental results and theoretical model  
Journal of Physical Chemistry C **115**, 4022-4032 (2011)

Falenty A., Hansen T.C., Kuhs W.F. Cubic ice formation and annealing during  $\text{CO}_2$  clathrate hydrate decomposition at low temperatures  
In "Proceedings of the 12th International Conference on the Physics and Chemistry of Ice" (2011, Hokkaido University Press)

Falenty A., Kuhs W.F., Hansen T.C.  $\text{CO}_2$  hydrate dissociation at low temperatures - Formation and annealing of ice Ic  
In "Proceedings of the 7th International Conference on Gas Hydrates (ICGH 2011)" (2011) pp. 1-10

Fang Y., Ritter C., White T. The crystal chemistry of  $\text{Ca}_{10-y}(\text{SiO}_4)_3(\text{SO}_4)_3\text{Cl}_{2-x-2y}\text{F}_x$  ellestadite  
Inorganic Chemistry **50**, 12641-12650 (2011)

Fedotov V.K., Ponyatovsky E.G. Study of the solid-state amorphization of  $(\text{GaSb})_{1-x}\text{Ge}_x$  semiconductors by real-time neutron diffraction and electron microscopy  
Crystallography Reports **56**, 1155-1159 (2011)

Ford S.J., Delamore O.J., Evans J.S.O., McIntyre G.J., Johnson M.R., Radosavljevic Evans I. Giant deuteron migration during the isosymmetric phase transition in deuterated 3,5-pyridinedicarboxylic acid  
Chemistry - A European Journal **17**, 14942-14951 (2011)

Fucke K., Anderson K.M., Filby M.H., Henry M., Wright J., Mason S.A., Gutmann M.J., Barbour L.J., Oliver C., Coleman A.W., Atwood J.L., Howard J.A.K., Steed J.W. The structure of water in *p*-sulfonatocalix[4]arene  
Chemistry - A European Journal **17**, 10259-10271 (2011)

Garcia-Martin S., King G., Urones-Garrote E., Nénert G., Woodward P.M. Spontaneous superlattice formation in the doubly ordered perovskite  $\text{KLaMnWO}_6$   
Chemistry of Materials **23**, 163-170 (2011)

García-Muñoz J.L., Collado A., Aranda M.A.G., Ritter C. Multilevel hierarchy of phase separation processes in  $\text{La}_{5/8-y}\text{Pr}_y\text{Ca}_{3/8}\text{MnO}_3$   
Physical Review B **84**, 024425-1-024425-7 (2011)

Gardberg A.S., Potter B.S., Palmer R.A., McIntyre G.J., Myles D.A.A. The neutron structure of the formyl peptide receptor antagonist cyclosporin H (CsH) unambiguously determines the solvent and hydrogen-bonding structure for crystal form II  
Journal of Chemical Crystallography **41**, 470-480 (2011)

Gatta G.D., McIntyre G.J., Sassi R., Rotiroti N., Pavese A. Hydrogen-bond and cation partitioning in muscovite: A single-crystal neutron-diffraction study at 295 and 20 K  
American Mineralogist **96**, 34-41 (2011)

Glazyrin K., Dubrovinsky L., Klotz S., Uhlarz M., Wosnitza J., Hansen T.C., Dubrovinskaia N. Effect of composition and pressure on phase transitions in  $\text{Fe}_x\text{O}$  at low temperature  
Journal of Applied Physics **110**, 026109-1-026109-3 (2011)

Gorria P., Álvarez P., Sánchez Marcos J., Sánchez Llamazares J.L., Blanco J.A. Nanocrystalline  $\text{Pr}_2\text{Fe}_{17}$  studied by neutron powder diffraction  
Journal of Physics : Conference Series **251**, 012012-1-012012-4 (2010)

Guzmán-Afonso C., González-Silgo C., González-platas J., Torres M.E., Lozano-Gorrín A.D., Sabalisk N., Sánchez-Fajardo V., Campo J., Rodríguez-Carvajal J. Structural investigation of the negative thermal expansion in yttrium and rare earth molybdates  
Journal of Physics Condensed Matter **23**, 325402-1-325402-9 (2011)

Hernandez O.J., Tassel C., Nakano K., Paulus W., Ritter C., Collet E., Kitada A., Yoshimura K., Kageyama H. First single-crystal synthesis and low-temperature structural determination of the quasi-2D quantum spin compound  $(\text{CuCl})\text{LaNb}_2\text{O}_7$   
Dalton Transactions **40**, 4605-4613 (2011)

Joseph B., Zinth V., Brunelli M., Maroni B., Johrendt D., Malavasi L. Local structural studies of  $\text{Ba}_{1-x}\text{K}_x\text{Fe}_2\text{As}_2$  using atomic pair distribution function analysis  
Journal of Physics Condensed Matter **23**, 112202-1-112202-4 (2011)

Kalinko A., Kotlov A., Kuzmin A., Pankratov V., Popov A.I., Shirmane L. Electronic excitations in  $\text{ZnWO}_4$  and  $\text{Zn}_x\text{Ni}_{1-x}\text{WO}_4$  ( $x = 0.1 - 0.9$ ) using VUV synchrotron radiation  
Central European Journal of Physics **9**, 432-437 (2011)

Kitchen H.J., Saratovsky I., Hayward M.A. Topotactic reduction as a synthetic route for the preparation of low-dimensional Mn(II) oxide phases: The structure and magnetism of  $\text{LaAMnO}_{4-x}$  ( $A = \text{Sr}, \text{Ba}$ )  
Dalton Transactions **39**, 6098-6105 (2010)

- Klotz S., Strässle T., Cornelius A.L., Philippe J., Pomjakushin V. Elastic properties of  $\alpha$ -iron at high temperatures by high-pressure neutron scattering  
Journal of Physics D **44**, 055406-1-055406-4 (2011)
- Komarek A.C., Isobe M., Hemberger J., Meier D., Lorenz T., Trots D., Cervellino A., Fernández-Díaz M.T., Ueda Y., Braden M. Dimerization and charge order in hollandite  $K_2V_8O_{16}$   
Physical Review Letters **107**, 027201-1-027201-4 (2011)
- Li H.F., Yan J.Q., Kim J.W., McCallum R.W., Lograsso T.A., Vaknin D. Anisotropic magnetoelastic coupling in single-crystalline CeFeAsO as seen via high-resolution X-ray diffraction  
Physical Review B **84**, 220501-1-220501-5 (2011)
- Li Y., Kim Y.N., Cheng J., Alonso J.A., Hu Z., Chin Y.Y., Takami T., Fernández-Díaz M.T., Lin H.J., Chen C.T., Tjeng L.H., Manthiram A., Goodenough J.B. Oxygen-deficient perovskite  $Sr_{0.7}Y_{0.3}CoO_{2.65-8}$  as a cathode for intermediate-temperature solid oxide fuel cells  
Chemistry of Materials **23**, 5037-5044 (2011)
- Littlefield B.T.R., Hinde C., Weller M.T. Structure of the  $Be(OH)_4^{2-}$  anion  
Dalton Transactions **40**, 782-784 (2011)
- Lo Presti L., Allieta M., Scavini M., Ghigna P., Loconte L., Scagnoli V., Brunelli M. Crystal structure and structural phase transitions in the  $GdBaCo_2O_{5.0}$  cobaltite  
Physical Review B **84**, 104107-1-104107-9 (2011)
- Locherer T., Prasad D.L.V.K., Dinnebier R., Wedig U., Jansen M., Garbarino G., Hansen T.C. High-pressure structural evolution of  $HP-Bi_2O_3$   
Physical Review B **83**, 214102-1-214102-9 (2011)
- Malavasi L., Tealdi C., Ritter C., Pomjakushin V., Gozzo F., Diaz-Fernandez Y. Combined neutron and synchrotron X-ray diffraction investigation of the  $BaCe_{0.85-x}Zr_xY_{0.15}O_{3-\delta}$  ( $0.1 \leq x \leq 0.4$ ) proton conductors  
Chemistry of Materials **23**, 1323-1330 (2011)
- Martin N., Regnault L.P., Klimko S., Lorenzo J.E., Gähler R. Larmor diffraction measurement of the temperature dependence of lattice constants in  $CuGeO_3$   
Physica B **406**, 2333-2336 (2011)
- Martínez-Lope M.J., Retuerto M., Alonso J.A., Sánchez-Benítez J., Fernández-Díaz M.T. High-pressure synthesis and neutron diffraction investigation of the crystallographic and magnetic structure of  $TeNiO_3$  perovskite  
Dalton Transactions **40**, 4599-4604 (2011)
- Masó N., Woodward D.I., Thomas P.A., Várez A., West A.R. Structural characterisation of ferroelectric  $Ag_2Nb_4O_{11}$  and dielectric  $Ag_2Ta_4O_{11}$   
Journal of Materials Chemistry **21**, 2715-2722 (2011)
- Masó N., Woodward D.I., Várez A., West A.R. Polymorphism, structural characterisation and electrical properties of  $Na_2Nb_4O_{11}$   
Journal of Materials Chemistry **21**, 12096-12102 (2011)

- Mather G.C., García-Martín S., Benne D., Ritter C., Amador U. A-site-cation deficiency in the SrCe<sub>0.9</sub>Yb<sub>0.1</sub>O<sub>3-δ</sub> perovskite: Effects of charge-compensation mechanism on structure and proton conductivity  
Journal of Materials Chemistry **21**, 5764-5773 (2011)
- Meiners J., Scheibel M.G., Lemée-Cailleau M.H., Mason S.A., Boeddinghaus M.B., Fässler T.F., Herdtweck E., Khusniyarov M.M., Schneider S. Quadratisch-planare Iridium(II)- und Iridium(III)-Amidokomplexe mit einem PNP-Pinzettenliganden  
Angewandte Chemie **123**, 8334-8337 (2011)
- Meiners J., Scheibel M.G., Lemée-Cailleau M.H., Mason S.A., Boeddinghaus M.B., Fässler T.F., Herdtweck E., Khusniyarov M.M., Schneider S. Square-planar iridium(II) and iridium(III) amido complexes stabilized by a PNP pincer ligand  
Angewandte Chemie International Edition **50**, 8184-8187 (2011)
- Miranda L., Boulahya K., Hernando M., Sinclair D.C., Jiménez-Villacorta F., Varela A., González-Calbet J.M., Parras M. Structure-composition-property relationships of 6H-BaTi<sub>1-y</sub>CoyO<sub>3-δ</sub> (0.1 ≤ y ≤ 0.4)  
Chemistry of Materials **23**, 1050-1060 (2011)
- Mittal R., Zbiri M., Schober H., Marelli E., Hibble S.J., Chippindale A.M., Chaplot S.L. Relationship between phonons and thermal expansion in Zn(CN)<sub>2</sub> and Ni(CN)<sub>2</sub> from inelastic neutron scattering and *ab initio* calculations  
Physical Review B **83**, 024301-1-024301-12 (2011)
- Mole R.A., Stride J.A., Henry P.F., Hoelzel M., Senyshyn A., Alberola A., Gómez-García C.J., Raithby P.R., Wood P.T. Two stage magnetic ordering and spin idle behavior of the coordination polymer Co<sub>3</sub>(OH)<sub>2</sub>(C<sub>4</sub>O<sub>4</sub>)<sub>2</sub>·<sup>3</sup>H<sub>2</sub>O determined using neutron diffraction  
Inorganic Chemistry **50**, 2246-2251 (2011)
- Morozkin A.V., Nirmala R., Malik S.K. Structural and magnetic properties of Fe<sub>2</sub>P-type R<sub>6</sub>TX<sub>2</sub> compounds (R=Zr, Dy, Ho, Er, T=Mn, Fe, Co, Cu, Ru, Rh, X=Sb, Bi, Te)  
Intermetallics **19**, 1250-1264 (2011)
- Pereira A.M., Dos Santos A.M., Magen C., Sousa J.B., Algarabel P.A., Ren Y., Ritter C., Morellon L., Ibarra M.R., Araújo J.P. Understanding the role played by Fe on the tuning of magnetocaloric effect in Tb<sub>5</sub>Si<sub>2</sub>Ge<sub>2</sub>  
Applied Physics Letters **98**, 122501-1-122501-3 (2011)
- Pérez Flores J.C., Ritter C., Pérez-Coll D., Mather G.C., García-Alvarado F., Amador U. Synthesis, structures and electrical transport properties of the La<sub>2-x</sub>Sr<sub>x</sub>NiTiO<sub>6-δ</sub> (0 ≤ x ≤ 0.5) perovskite series  
Journal of Materials Chemistry **21**, 13195-13204 (2011)
- Pralong V., Caignaert V., Sarkar T., Lebedev O.I., Duffort V., Raveau B. Oxygen excess in the "114" cobaltite hexagonal structure: The ferrimagnet CaBaCo<sub>4</sub>O<sub>7.50</sub>  
Journal of Solid State Chemistry **184**, 2588-2594 (2011)
- Price T.E.C., Grant D.M., Weston D., Hansen T.C., Arnbjerg L.M., Ravnsbaek D.B., Jensen T.R., Walker G.S. The effect of H<sub>2</sub> partial pressure on the reaction progression and reversibility of lithium-containing multicomponent destabilized hydrogen storage systems

- Journal of the American Chemical Society **133**, 13534-13538 (2011)
- Retuerto M., Jiménez-Villacorta F., Martínez-Lope M.J., Fernández-Díaz M.T., Alonso J.A. Stabilization and study of  $\text{SrFe}_{1-x}\text{Mn}_x\text{O}_2$  oxides with infinite-layer structure  
Inorganic Chemistry **50**, 10929-10936 (2011)
- Retuerto M., Sánchez-Benítez J., Alonso J.A., Leardini F., Ares J.R., Fernández J.F., Sanchez C. Deuteration properties of  $\text{CaNi}_{5-x}\text{Cu}_x$  system  
Journal of Power Sources **196**, 4342-4346 (2011)
- Salamat A., Hector A.L., McMillan P.F., Ritter C. Structure, bonding, and phase relations in  $\text{Bi}_2\text{Sn}_2\text{O}_7$  and  $\text{Bi}_2\text{Ti}_2\text{O}_7$  pyrochlores: New insights from high pressure and high temperature studies  
Inorganic Chemistry **50**, 11905-11913 (2011)
- Salzmann C.G., Radaelli P.G., Slater B., Finney J.L. The polymorphism of ice: Five unresolved questions  
Physical Chemistry - Chemical Physics **13**, 18468-18480 (2011)
- Sano-Furukawa A., Kuribayashi T., Komatsu K., Yagi T., Ohtani E. Investigation of hydrogen sites of wadsleyite: A neutron diffraction study  
Physics of the Earth and Planetary Interiors **189**, 56-62 (2011)
- Sánchez-Benítez J., Kayser P., Martínez-Lope M.J., de la Calle C., Retuerto M., Fernández-Díaz M.T., Alonso J.A. High-pressure preparation and characterization of new metastable oxides: The case of  $\text{NdCu}_3\text{Mn}_3\text{MO}_{12}$  ( $M = \text{Fe}, \text{Cr}$ )  
Journal of Physics : Conference Series **325**, 012002-1-012002-11 (2011)
- Senyshyn A., Hoelzel M., Hansen T., Vasylechko L., Mikhailik V., Kraus H., Ehrenberg H. Thermal structural properties of calcium tungstate  
Journal of Applied Crystallography **44**, 319-326 (2011)
- Smura C.F., Parker D.R., Zbiri M., Johnson M.R., Gál Z.A., Clarke S.J. High-spin cobalt(II) ions in square planar coordination: Structures and magnetism of the oxysulfides  $\text{Sr}_2\text{CoO}_2\text{Cu}_2\text{S}_2$  and  $\text{Ba}_2\text{CoO}_2\text{Cu}_2\text{S}_2$  and their solid solution  
Journal of the American Chemical Society **133**, 2691-2705 (2011)
- Tealdi C., Ferrara C., Malavasi L., Mustarelli P., Ritter C., Chiodelli G., Diaz-Fernandez Y.A. High-temperature neutron diffraction study of  $\text{La}_{2-x}\text{Sr}_x\text{CoO}_4$ : Correlation between structure and transport properties  
Physical Review B **82**, 174118-1-174118-8 (2010)
- Tereshina E.A., Andreev A.V., Kamarád J., Isnard O., Watanabe K.  $(\text{Lu}_{0.8}\text{Ce}_{0.2})_2\text{Fe}_{17}$  single crystal under hydrostatic and "negative" pressure induced by hydrogenation  
Journal of Physics Condensed Matter **23**, 216004-1-216004-9 (2011)
- Tonus F., Greaves C., El Shinawi H., Hansen T., Hernandez O., Battle P.D., Bahout M. High-temperature redox chemistry of  $\text{La}_{1.5+x}\text{Sr}_{0.5-x}\text{Co}_{0.5}\text{Ni}_{0.5}\text{O}_{4+\delta}$  ( $x = 0.0, 0.2$ ) studied *in situ* by neutron diffraction  
Journal of Materials Chemistry **21**, 7111-7122 (2011)

Toudic B., Rabiller P., Bourgeois L., Huard M., Ecolivet C., McIntyre G.J., Bourges P., Breczewski T., Janssen T. Temperature-pressure phase diagram of an aperiodic host guest compound  
Europhysics Letters **93**, 16003-p1-16003-p5 (2011)

Touret D., Reinhart G., Gandin C.A., Iles G.N., Dahlborg U., Calvo-Dahlborg M., Bao C.M. Gas atomization of Al-Ni powders: Solidification modeling and neutron diffraction analysis  
Acta Materialia **59**, 6658-6669 (2011)

Wdowik U.D., Ouladdiaf B., Chatterji T. Structural and thermal properties of LaMnO<sub>3</sub> from neutron diffraction and first principles studies  
Journal of Physics Condensed Matter **23**, 245402-1-245402-8 (2011)

Whitaker M.J., Bayliss R.D., Berry F.J., Greaves C. The synthesis, structure, magnetic and electrical properties of FeSb<sub>2-x</sub>Pb<sub>x</sub>O<sub>4</sub>  
Journal of Materials Chemistry **21**, 14523-14529 (2011)

Wrubl F., Shah K.V., Joshi D.A., Manfrinetti P., Pani M., Ritter C., Dhar S.K. Superstructure and magnetic properties of R<sub>15</sub>X<sub>9</sub>C compounds (R = rare earth; X = Si and Ge)  
Journal of Alloys and Compounds **509**, 6509-6517 (2011)

Xie H., Alonso J.A., Li Y., Fernández-Díaz M.T., Goodenough J.B. Lithium distribution in aluminum-free cubic Li<sub>7</sub>La<sub>3</sub>Zr<sub>2</sub>O<sub>12</sub>  
Chemistry of Materials **23**, 3587-3589 (2011)

Yartys V.A., Denys R.V., Webb C.J., Mæhlen J.P., Gray E. MacA., Blach T., Isnard O., Barnsley L.C. High pressure in situ diffraction studies of metal-hydrogen systems  
Journal of Alloys and Compounds **509**, S817-S822 (2011)

## **Magnetic Structures**

Alfonso B.F., Piqué C., Trobajo C., García J.R., Rodríguez Fernández J., Fernández-Díaz M.T., Blanco J.A. Powder neutron diffraction investigation of the crystal and magnetic structures of NH<sub>4</sub>Fe(HPO<sub>4</sub>)<sub>2</sub> and its deuterated form  
Journal of Physics : Conference Series **325**, 012014-1-012014-4 (2011)

Alonso-Domínguez D., Álvarez-Serrano I., Cuello G., García-Hernández M., López M.L., Pico C., Veiga M.L. Tuning magnetic critical behaviour in Ti-manganites by doping with vacancies in A-sites: Sr<sub>1-x</sub>LaMnTiO<sub>6-δ</sub> (0 < x ≤ 0.15)  
Materials Chemistry and Physics **130**, 280-284 (2011)

Álvarez P., Gorria P., Sánchez Marcos J., Puente Orench I., Rodríguez-Velamazán J.A., Cuello G., Sánchez Llamazares J.L., Blanco J.A. Magnetic structure and magneto-volume anomalies in Er<sub>2</sub>Fe<sub>17</sub> compound  
Journal of Physics : Conference Series **325**, 012011-1-012011-5 (2011)

Barandiarán J.M., Gutiérrez J., Lázpita P., Feuchtwanger J. Neutron diffraction studies of magnetic shape memory alloys

Materials Science Forum **684**, 73-84 (2011)

Barón-González A.J., Frontera C., García-Muñoz J.L., Blasco J., Ritter C. Cation order and structural transition in  $\text{La}_2\text{MnCoO}_6$

Journal of Physics : Conference Series **325**, 012007-1-012007-5 (2011)

Battle P.D., Dutton S.E., Grandjean F., Long G.J., Thammajak N., Wisetsuwannaphum S. Structural and magnetic properties of  $\text{Nd}_{18}\text{Li}_8\text{Co}_{4-x}\text{Fe}_x\text{O}_{39-y}$  and  $\text{Nd}_{18}\text{Li}_8\text{Co}_{4-x}\text{Ti}_x\text{O}_{39-y}$

Journal of Solid State Chemistry **184**, 2580-2587 (2011)

Brown P.J., Chatterji T. Weak ferromagnetism and magnetic phase transitions in  $\text{Gd}_2\text{CuO}_4$

Physical Review B **84**, 054426-1-054426-6 (2011)

Brown P.J., Gandy A.P., Kainuma R., Kanomata T., Neumann K.U., Oikawa K., Ouladdiaf B., Sheikh A., Ziebeck K.R.A. The field and temperature dependence of the magnetic and structural properties of the shape memory compound  $\text{Ni}_{1.84}\text{Mn}_{1.64}\text{In}_{0.52}$

Journal of Physics Condensed Matter **23**, 456004-1-456004-9 (2011)

Burzurí E., Luis F., Montero O., Campo J., Barbara B., Ballou R., Ressouche E., Maegawa S. Magnetic dipolar ordering and quantum phase transition in  $\text{Fe}_8$  molecular magnet

Physical Review Letters **107**, 097203-1-097203-4 (2011)

Chatterji T., Hansen T.C. Magnetoelastic effects in Jahn-Teller distorted  $\text{CrF}_2$  and  $\text{CuF}_2$  studied by neutron powder diffraction

Journal of Physics Condensed Matter **23**, 276007-1-276007-9 (2011)

de la Calle C., Sánchez-Benítez J., Barbanson F., Nemes N., Fernández-Díaz M.T., Alonso J.A. Transition from Pauli-paramagnetism to ferromagnetism in  $\text{CaCu}_3(\text{Ru}_{4-x}\text{Mn}_x)\text{O}_{12}$  ( $0 \leq x \leq 3$ ) perovskites

Journal of Applied Physics **109**, 123914-1-123914-8 (2011)

Freeman P.G., Giblin S.R., Prabhakaran D. Effect of non-stoichiometry oxygen content on the magnetization of  $\text{La}_{1.5}\text{Sr}_{0.5}\text{NiO}_{4+\delta}$

Journal of Superconductivity and Novel Magnetism **24**, 1149-1152 (2011)

Fuertes V.C., Blanco M.C., Franco D.G., De Paoli J.M., Sánchez R.D., Carbonio R.E. Influence of the B-site ordering on the magnetic properties of the new  $\text{La}_3\text{Co}_2\text{MO}_9$  double perovskites with  $M=\text{Nb}$  or  $\text{Ta}$

Materials Research Bulletin **46**, 62-69 (2011)

García-Muñoz J.L., Frontera C., Alonso J.A., Martínez-Lope M.J., Fernández-Díaz M.T. Neutron powder diffraction studies of magnetic quasi-degenerated oxides with competing degrees of freedom

Neutron News **21**, 15-19 (2010)

Gayen S., Sanyal M.K., Sarma A., Wolff M., Zhernenkov K., Zabel H. Polarized neutron reflectivity study of spin vortices formed in Gd-based Langmuir-Blodgett films

Physical Review B **82**, 174429-1-174429-5 (2010)



Gonzalez J.A., Michez L.A., Charlton T.R., Hickey B.J., Langridge S., Marrows C.H. Tracking the evolution of magnetic ordering in Co/Ru multilayers with inhomogeneous interlayer coupling using polarised neutron reflectometry

Physica B **406**, 2689-2696 (2011)

Hayes T.J., Balakrishnan G., Deen P.P., Manuel P., Chapon L.C., Petrenko O.A. Coexistence of the long-range and short-range magnetic order components in SrEr<sub>2</sub>O<sub>4</sub>

Physical Review B **84**, 174435-1-174435-6 (2011)

Hill A.H., Harrison A., Ritter C., Yue W., Zhou W. Neutron powder diffraction and magnetic studies of mesoporous Co<sub>3</sub>O<sub>4</sub>

Journal of Magnetism and Magnetic Materials **323**, 226-231 (2011)

Honecker D., Döbrich F., Dewhurst C.D., Wiedenmann A., Michels A. Neutron spin-flip scattering of nanocrystalline cobalt

Journal of Physics Condensed Matter **23**, 016003-1-016003-4 (2011)

Hong T., Zheludev A., Manaka H., Regnault L.P. Evidence of a magnetic Bose glass in (CH<sub>3</sub>)<sub>2</sub>CHNH<sub>3</sub>Cu(Cl<sub>{0.95}</sub>Br<sub>{0.05}</sub>)<sub>3</sub> from neutron diffraction

Physical Review B **81**, 060410-1-060410-4 (2010)

Ivanov S.A., Nordblad P., Mathieu R., Tellgren R., Ritter C., Golubko N.V., Politova E.D., Weil M. New type of incommensurate magnetic ordering in Mn<sub>3</sub>TeO<sub>6</sub>

Materials Research Bulletin **46**, 1870-1877 (2011)

Jeevan H.S., Adroja D.T., Hillier A.D., Hossain Z., Ritter C., Geibel C. Muon spin relaxation and neutron diffraction investigations of quadrupolar and magnetically ordered states of YbRu<sub>2</sub>Ge<sub>2</sub>

Physical Review B **84**, 184405-1-184405-6 (2011)

Jericha E., Badurek G., Grössinger R. Characterisation of novel magnetic materials using the USANSPOL technique

Physica B **406**, 2401-2404 (2011)

Kawano-Furukawa H., Howell C.J., White J.S., Heslop R.W., Cameron A.S., Forgan E.M., Kihou K., Lee C.H., Iyo A., Eisaki H., Saito T., Fukazawa H., Kohori Y., Cubitt R., Dewhurst C.D., Gavilano J.L., Zolliker M. Gap in KFe<sub>2</sub>As<sub>2</sub> studied by small-angle neutron scattering observations of the magnetic vortex lattice

Physical Review B **84**, 024507-1-024507-9 (2011)

Khalyavin D.D., Chapon L.C., Suard E., Parker J.E., Thompson S.P., Yaremchenko A.A., Kharton V.V. Complex room-temperature ferrimagnetism induced by zigzag stripes of oxygen vacancies in Sr<sub>3</sub>YCo<sub>4</sub>O<sub>10+δ</sub>

Physical Review B **83**, 140403-1-140403-4 (2011)

Khalyavin D.D., Manuel P., Ouladdiaf B., Huq A., Zheng H., Mitchell J.F., Chapon L.C. Spin-ordering and magnetoelastic coupling in the extended Kagome system YBaCo<sub>4</sub>O<sub>7</sub>

Physical Review B **83**, 094412-1-094412-8 (2011)

Knebel G., Buhot J., Aoki D., Lapertot G., Raymond S., Ressouche E., Flouquet J. Antiferromagnetism and superconductivity in CeRhIn<sub>5</sub>

Journal of the Physical Society of Japan **80**, SA001-1-SA001-6 (2011)

Komarek A.C., Möller T., Isobe M., Drees Y., Ulbrich H., Azuma M., Fernández-Díaz M.T., Senyshyn A., Hoelzel M., André G., Ueda Y., Grüninger M., Braden M. Magnetic order, transport and infrared optical properties in the  $ACrO_3$  system (A = Ca, Sr, and Pb)  
Physical Review B **84**, 125114-1-125114-14 (2011)

Koo H.J., Lee C., Whangbo M.H., McIntyre G.J., Kremer R.K. On the nature of the spin frustration in the  $CuO_2$  ribbon chains of  $LiCuVO_4$ : Crystal structure determination at 1.6 K, magnetic susceptibility analysis, and density functional evaluation of the spin exchange constants  
Inorganic Chemistry **50**, 3582-3588 (2011)

Lázpita P., Barandiarán J.M., Feuchtwanger J., Gutiérrez J., Rodríguez I., Chernenko V.A., Stunault A., Mondelli C. Magnetic moment distribution in non-stoichiometric Ni-Mn-Ga ferromagnetic shape memory alloys  
Journal of Physics : Conference Series **325**, 012016-1-012016-7 (2011)

Lázpita P., Chernenko V.A., Barandiarán J.M., Orúe I., Gutiérrez J., Feuchtwanger J., Rodríguez-Velamazán J.A. Influence of magnetic field on magnetostructural transition in  $Ni_{46.4}Mn_{32.8}Sn_{20.8}$  Heusler alloy  
Materials Science Forum **635**, 89-95 (2010)

Le M.L.P., Strobel P., Colin C.V., Pagnier T., Alloin F. Spinel-type solid solutions involving  $Mn^{4+}$  and  $Ti^{4+}$ : Crystal chemistry, magnetic and electrochemical properties  
Journal of Physics and Chemistry of Solids **72**, 124-135 (2011)

Lejay P., Canévet E., Srivastava S.K., Grenier B., Klanjsek M., Berthier C. Crystal growth and magnetic property of  $MCo_2V_2O_8$  (M=Sr and Ba)  
Journal of Crystal Growth **317**, 128-131 (2011)

Lester C., Chu J.H., Analytis J.G., Stunault A., Fisher I.R., Hayden S.M. Polarized neutron diffraction study of the field-induced magnetization in the normal and superconducting states of  $Ba(Fe_{1-x}Co_x)_2As_2$  ( $x=0.65$ )  
Physical Review B **84**, 134514-1-134514-8 (2011)

López C.A., Viola M.C., Pedregosa J.C., Alonso J.A., Fernández-Díaz M.T. Enhancing magnetic and magnetotransport properties by topotactic reduction of the  $Sr_2Fe_{1.33}Mo_{0.66}O_6$  double perovskite  
European Journal of Inorganic Chemistry **2010**, 4110-4120 (2010)

Makarova O.L., Mirebeau I., Kichanov S.E., Rodríguez-Carvajal J., Forget A. Pressure-induced change in the magnetic ordering of  $TbMnO_3$   
Physical Review B **84**, 020408-1-020408-4 (2011)

Markkula M., Arevalo-Lopez A.M., Kusmartseva A., Rodgers J.A., Ritter C., Wu H., Attfield J.P. Incommensurate spin order in the metallic perovskite  $MnVO_3$   
Physical Review B **84**, 094450-1-094450-5 (2011)

Martinelli A., Ferretti M., Castellano C., Cimberle M.R., Masini R., Ritter C. Neutron powder diffraction investigation on the crystal and magnetic structure of  $(Ho_{0.50+x}Ca_{0.50-x})(Mn_{1-x}Cr_x)O_3$   
Journal of Physics Condensed Matter **23**, 416005-1-416005-8 (2011)

- Martinelli A., Ferretti M., Cimberle M.R., Ritter C. The crystal and magnetic structure of Ti-substituted  $\text{LaCrO}_3$   
 Materials Research Bulletin **46**, 190-193 (2011)
- Martínez Casado F.J., Fabelo O., Rodríguez-Velamazán J.A., Ramos Riesco M., Rodríguez Cheda J.A., Labrador A., Rodríguez-Blanco C., Campo J., Sánchez-Alarcos V., Müller H. Manganese(II) butyrate-based MOFs: Structures, thermal and magnetic properties  
 Crystal Growth & Design **11**, 4080-4089 (2011)
- Martínez-Blanco D., Gorria P., Fernández-Martínez A., Pérez M.J., Cuello G.J., Blanco J.A. Spin-glass-like behaviour in ball milled  $\text{Fe}_{30}\text{Cr}_{70}$  alloy studied by *ac* magnetic susceptibility  
 Journal of Alloys and Compounds **509**, S397-S399 (2011)
- McLaughlin A.C., de Vries M.A., Bos J.W.G. Persistence of the valence bond glass state in the double perovskites  $\text{Ba}_{2-x}\text{Sr}_x\text{YMoO}_6$   
 Physical Review B **82**, 094424-1-094424-5 (2010)
- Melot B.C., Chotard J.N., Rouse G., Ati M., Reynaud M., Tarascon J.M. Synthesis, structure, and magnetic properties of the  $\text{NaCoXO}_4\text{F}\cdot 2\text{H}_2\text{O}$  phases where  $X = \text{S}$  and  $\text{Se}$   
 Inorganic Chemistry **50**, 7662-7668 (2011)
- Melot B.C., Rouse G., Chotard J.N., Ati M., Rodríguez-Carvajal J., Kemei M.C., Tarascon J.M. Magnetic structure and properties of the Li-ion battery materials  $\text{FeSO}_4\text{F}$  and  $\text{LiFeSO}_4\text{F}$   
 Chemistry of Materials **23**, 2922-2930 (2011)
- Mihalik M., Prokleška J., Kamarád J., Prokeš K., Isnard O., McIntyre G.J., Dönni A., Yoshii S., Kitazawa H., Sechovský V., De Boer F.R.  $\text{NdRhSn}$ : A ferromagnet with an antiferromagnetic precursor  
 Physical Review B **83**, 104403-1-104403-10 (2011)
- Miiller W., Christensen M., Khan A., Sharma N., Macquart R.B., Avdeev M., McIntyre G.J., Piltz R.O., Ling C.D.  $\text{YCa}_3(\text{VO})_3(\text{BO}_3)_4$ : A Kagomé compound based on vanadium(III) with a highly frustrated ground state  
 Chemistry of Materials **23**, 1315-1322 (2011)
- Morozkin A.V., Isnard O. Magnetic order of  $\text{Mn}_5\text{Si}_3$ -type  $\text{Tb}_5\text{Sb}_3$  and  $\text{Tb}_5\text{Si}_{1.5}\text{Sb}_{1.5}$   
 Journal of Magnetism and Magnetic Materials **323**, 3189-3197 (2011)
- Morozkin A.V., Manfrinetti P. Magnetic structure of the  $\text{YbMn}_2\text{SbBi}$  compound  
 Journal of Alloys and Compounds **509**, 3723-3725 (2011)
- Morozkin A.V., Nirmala R., Isnard O., Malik S.K., Yao J., Mozharivskyj Y., Granovsky S.A. Magnetic ordering of anti- $\text{Th}_3\text{P}_4$ -type  $R_4X_3$  and  $\text{Th}_3\text{P}_4$ -type  $R_3X_4$  compounds ( $R = \text{Ce}, \text{Pr}, \text{Nd}, \text{Sm}, X = \text{Ge}, \text{Sb}, \text{Te}$ )  
 Intermetallics **19**, 1794-1803 (2011)
- Mourigal M., Enderle M., Kremer R.K., Law J.M., Fåk B. Ferroelectricity from spin supercurrents in  $\text{LiCuVO}_4$   
 Physical Review B **83**, 100409-1-100409-4 (2011)

- Nandi S., Su Y., Xiao Y., Price S., Wang X.F., Chen X.H., Herrero-Martín J., Mazzoli C., Walker H.C., Paolasini L., Francoual S., Shukla D.K., Stempffer J., Chatterji T., Kumar C.M.N., Mittal R., Rønnow H.M., Rüegg C., McMorrow D.F., Brückel T. Strong coupling of Sm and Fe magnetism in SmFeAsO as revealed by magnetic X-ray scattering  
Physical Review B **84**, 054419-1-054419-8 (2011)
- Nirmala R., Morozkin A.V., Nigam A.K., Lamsal J., Yelon W.B., Isnard O., Granovsky S.A., Bharathi K.K., Quezado S., Malik S.K. Competing magnetic interactions in the intermetallic compounds Pr<sub>5</sub>Ge<sub>3</sub> and Nd<sub>5</sub>Ge<sub>3</sub>  
Journal of Applied Physics **109**, 07A716-1-07A716-3 (2011)
- Opagiste C., Galéra R.M., Amara M., Paulsen C., Rols S., Ouladdiaf B. Unconventional behavior of the Ce<sub>3</sub>Pt<sub>23</sub>Si<sub>11</sub> ferromagnet  
Physical Review B **84**, 134401-1-134401-9 (2011)
- Parra-Borderías M., Bartolomé F., Rodríguez-Velamazán J.A., Bartolomé J. Evolution of Fe magnetic order in NdFe<sub>x</sub>Ga<sub>1-x</sub>O<sub>3</sub>  
Journal of Physics Condensed Matter **23**, 046003-1-046003-13 (2011)
- Poltierová Vejpravová J., Prokleška J., Vales V., Danis S., Mantlikova A., Holý V., Brazda P., Doyle S., Ritter C., Kitazawa H., Niznansky D. High-coercivity iron oxide based nanocomposites - *Particle shape and magnetic structure by synchrotron and neutron scattering*  
IOP Conference Series: Materials Science and Engineering **18**, 022010-1-022010-4 (2011)
- Prokeš K., Kreyssig A., Ouladdiaf B., Pratt D.K., Ni N., Bud'ko S.L., Canfield P.C., McQueeney R.J., Goldman A.I., Argyriou D.N. Relation between superconductivity and tetragonal phase stabilized by uniaxial pressure in CaFe<sub>2</sub>As<sub>2</sub>  
Journal of Physics : Conference Series **273**, 012102-1-012102-4 (2011)
- Qureshi N., Drees Y., Werner J., Wurmehl S., Hess C., Klingeler R., Büchner B., Fernández-Díaz M.T., Braden M. Crystal and magnetic structure of the oxypnictide superconductor LaFeAsO<sub>1-x</sub>F<sub>x</sub>: A neutron-diffraction study  
Physical Review B **82**, 184521-1-184521-9 (2010)
- Ratcliff W., Kan D., Chen W., Watson S., Chi S., Erwin R., McIntyre G.J., Capelli S.C., Takeuchi I. Neutron diffraction investigations of magnetism in BiFeO<sub>3</sub> epitaxial films  
Advanced Functional Materials **21**, 1567-1574 (2011)
- Rebbouh L., Desautels R.D., Ritter C., Cadogan J.M., Temerov V., Pankrats A., van Lierop J. Short-range correlations and their thermal hysteresis in the paramagnetic phase of YFe<sub>3</sub>(BO<sub>3</sub>)<sub>4</sub>  
Physical Review B **83**, 140406-1-140406-4 (2011)
- Retuerto M., Martínez-Lope M.J., Krezhov K., Fernández-Díaz M.T., Alonso J.A. Structural and magnetic characterization of BiFe<sub>x</sub>Mn<sub>2-x</sub>O<sub>5</sub> oxides (x=0.5, 1.0)  
Journal of Solid State Chemistry **184**, 2428-2433 (2011)
- Retuerto M., Martínez-Lope M.J., Sánchez-Benítez J., García-Hernández M., Fernández-Díaz M.T., Alonso J.A. Synthesis, magnetic properties, and neutron diffraction study of the complex perovskites R(Cu<sub>3-x</sub>Mn<sub>x</sub>)Mn<sub>4</sub>O<sub>12</sub> (R=Pr, Nd and x=1,2)

- Journal of Applied Physics **108**, 083905-1-083905-8 (2010)
- Ritter C. Neutrons not entitled to retire at the age of 60: More than ever needed to reveal magnetic structures  
Solid State Phenomena **170**, 263-269 (2011)
- Ritter C., Provino A., Manfrinetti P., Gschneidner K.A. The magnetic structures of RMgSn compounds  
(R=Ce, Pr, Nd, Tb)  
Journal of Alloys and Compounds **509**, 9724-9732 (2011)
- Ritter C., Wrubl F., Hill A.H., Pani M., Manfrinetti P. Crystal and magnetic structure of the  $R_{15}Si_9C$   
compounds (R = Ho, Er, Tb)  
Journal of Physics Condensed Matter **23**, 296002-1-296002-12 (2011)
- Rule K.C., Reehuis M., Gibson M.C.R., Ouladdiaf B., Gutmann M.J., Hoffmann J.U., Gerischer S., Tennant  
D.A., Süllow S., Lang M. The magnetic and crystal structure of azurite  $Cu_3(CO_3)_2(OH)_2$  as determined by  
neutron diffraction  
Physical Review B **83**, 104401-1-104401-8 (2011)
- Sarvezuk P.W.C., Kinast E.J., Colin C.V., Gusmão M.A., da Cunha J.B.M., Isnard O. New investigation of  
the magnetic structure of  $CoNb_2O_6$  columbite  
Journal of Applied Physics **109**, 07E160-1-07E160-3 (2011)
- Sazonov A.P., Gukasov A., Mirebeau I., Cao H., Bonville P., Grenier B., Dhahenne G. Field-induced magnetic  
structures in  $Tb_2Ti_2O_7$  at low temperatures: From spin-ice to spin-flip structures  
Physical Review B **82**, 174406-1-174406-10 (2010)
- Schobinger-Papamantellos P., Brunelli M., Rodríguez-Carvajal J., Buschow K.H.J., Ritter C., Gramm F.  
Magneto structural transition in the DySi CrB- and micro-structural changes in the FeB-type compounds by  
XRPD and neutron diffraction  
Journal of Magnetism and Magnetic Materials **323**, 903-914 (2011)
- Schobinger-Papamantellos P., Buschow K.H.J., Rodríguez-Carvajal J. Magnetic phase diagrams of the CrB-  
and FeB-type HoSi compounds  
Journal of Magnetism and Magnetic Materials **323**, 2592-2607 (2011)
- Silva N.J.O., Puente-Orench I., Martins M., Trindade T., Millán A., Campo J., Palacio F. Neutron diffraction  
and magnetism of CoO antiferromagnetic nanoparticles  
Journal of Physics : Conference Series **325**, 012020-1-012020-4 (2011)
- Singh A., Senyshyn A., Fuess H., Chatterji T., Pandey D. Neutron powder diffraction study of nuclear and  
magnetic structures of multiferroic  $(Bi_{0.8}Ba_{0.2})(Fe_{0.8}Ti_{0.2})O_3$ : Evidence for isostructural phase transition and  
magnetoelastic and magnetoelectric couplings  
Physical Review B **83**, 054406-1-054406-9 (2011)
- Stewart J.R., Hillier J.M., Manuel P., Cywinski R. A neutron polarization analysis study of moment  
correlations in  $(Dy_{0.4}Y_{0.6})T_2$  (T = Mn, Al)  
Journal of Physics Condensed Matter **23**, 164205-1-164205-6 (2011)

- Thompson J.D., McClarty P.A., Rønnow H.M., Regnault L.P., Sorge A., Gingras M.J.P. Rods of neutron scattering intensity in  $\text{Yb}_2\text{Ti}_2\text{O}_7$ : Compelling evidence for significant anisotropic exchange in a magnetic pyrochlore oxide  
*Physical Review Letters* **106**, 187202-1-187202-4 (2011)
- Toth S., Lake B., Kimber S.A.J., Pieper O., Reehuis M., Islam A.T.M.N., Zaharko O., Ritter C., Hill A.H., Ryll H., Kiefer K., Argyriou D.N., Williams A.J.  $120^\circ$  helical magnetic order in the distorted triangular antiferromagnet  $\alpha\text{-CaCr}_2\text{O}_4$   
*Physical Review B* **84**, 054452-1-054452-12 (2011)
- Ulbrich H., Senff D., Steffens P., Schumann O.J., Sidis Y., Reutler P., Revcolevschi A., Braden M. Evidence for charge orbital and spin stripe order in an overdoped manganite  
*Physical Review Letters* **106**, 157201-1-157201-4 (2011)
- Umetsu R.Y., Sheikh A., Ito W., Ouladdiaf B., Ziebeck K.R.A., Kanomata T., Kainuma R. The effect of Co substitution on the magnetic properties of the Heusler alloy  $\text{Ni}_{50}\text{Mn}_{33}\text{Sn}_{17}$   
*Applied Physics Letters* **98**, 042507-1-042507-3 (2011)
- Van Duijn J., Ruiz-Bustos R., Hillier A.D., Daoud-Aladine A., Deen P. Observation of long-range magnetic ordering in the proposed spin-singlet state of  $\text{Hg}_2\text{Ru}_2\text{O}_7$   
*Physica B: Condensed Matter* **406**, 2389-2392 (2011)
- Vasenko A.S., Kawabata S., Golubov A.A., Kupriyanov M.Y., Lacroix C., Bergeret F.S., Hekking F.W.J. Current-voltage characteristics of tunnel Josephson junctions with a ferromagnetic interlayer  
*Physical Review B* **84**, 024524-1-024524-11 (2011)
- Wang C.H., Baker S.N., Lumsden M.D., Nagler S.E., Heller W.T., Baker G.A., Deen P.D., Cranswick L.M.D., Su Y., Christianson A.D. Antiferromagnetic order in MnO spherical nanoparticles  
*Physical Review B* **83**, 214418-1-214418-7 (2011)
- White J.S., Heslop R.W., Holmes A.T., Forgan E.M., Hinkov V., Egetenmeyer N., Gavilano J.L., Laver M., Dewhurst C.D., Cubitt R., Erb A. Magnetic-field-induced nonlocal effects on the vortex interactions in twin-free  $\text{YBa}_2\text{Cu}_3\text{O}_7$   
*Physical Review B* **84**, 104519-1-104519-17 (2011)
- Wilkinson C., Brown P.J., Chatterji T. Temperature evolution of the magnetic structure of  $\text{TbMn}_2\text{O}_5$   
*Physical Review B* **84**, 224422-1-224422-7 (2011)
- Wolfers P., Fillion G., Ouladdiaf B., Ballou R., Rochette P. The pyrrhotite 32K magnetic transition  
*Solid State Phenomena* **170**, 174-179 (2011)
- Xiao Y., Su Y., Kumar C.M.N., Ritter C., Mittal R., Price S., Person J., Brückel T. Physical properties, crystal and magnetic structure of layered  $\text{Fe}_{1.11}\text{Te}_{1-x}\text{Se}_x$  superconductors  
*European Physical Journal B* **82**, 113-121 (2011)
- Yan K., Carr D.G., Kabra S., Reid M., Studer A., Harrison R.P., Dippenaar R., Liss K.D. In situ characterization of lattice structure evolution during phase transformation of  $\text{Zr-2.5Nb}$   
*Advanced Engineering Materials* **13**, 882-886 (2011)

Yusuf S.M., Bera A.K., Ritter C., Tsujimoto Y., Ajiro Y., Kageyama H., Attfield J.P. Magnetic correlation in the square-lattice spin system (CuBr)Sr<sub>2</sub>Nb<sub>3</sub>O<sub>10</sub>: A neutron diffraction study  
Physical Review B **84**, 064407-1-064407-6 (2011)

Zbiri M., Johnson M., Schober H., Rols S., Qureshi N., Clarke S., Mittal R. Introduction to the density functional formalism and some illustrative applications to magnetism  
Collection SFN **12**, 77-104 (2011)

Zhou J.S., Alonso J.A., Han J.T., Fernández-Díaz M.T., Cheng J.G., Goodenough J.B. Jahn-Teller distortion in perovskite KCuF<sub>3</sub> under high pressure  
Journal of Fluorine Chemistry **132**, 1117-1121 (2011)

Zhou J.S., Alonso J.A., Muñoz A., Fernández-Díaz M.T., Goodenough J.B. Magnetic structure of LaCrO<sub>3</sub> perovskite under high pressure from *in situ* neutron diffraction  
Physical Review Letters **106**, 057201-1-057201-4 (2011)

## **Spectroscopy in Solid State Physics & Chemistry**

Alekseev P.A., Clementyev E.S., Heid R., Ivanov A.S., Lamago D., Mignot J.M., Petrova A.E., Stishov S.M. Lattice dynamics in the itinerant helical magnet MnSi  
Journal of Physics : Conference Series **273**, 012129-1-012129-5 (2011)

Arrese-Igor S., Arbe A., Frick B., Colmenero J. Glassy dynamics of polystyrene by quasielastic neutron scattering  
Macromolecules **44**, 3161-3168 (2011)

Bose P.P., Gupta M.K., Mittal R., Rols S., Achary S.N., Tyagi A.K., Chaplot S.L. Phase transitions and thermodynamic properties of yttria, Y<sub>2</sub>O<sub>3</sub>: Inelastic neutron scattering shell model and first-principles calculations  
Physical Review B **84**, 094301-1-094301-11 (2011)

Bourdarot F., Martin N., Raymond S., Regnault L.P., Aoki D., Taufour V., Flouquet J. Magnetic properties of URu<sub>2</sub>Si<sub>2</sub> under uniaxial stress by neutron scattering  
Physical Review B **84**, 184430-1-184430-9 (2011)

Bousige C., Rols S., Cambedouzou J., Verberck B., Pekker S., Kováts É., Durkó G., Jalsovsky I., Pellegrini E., Launois P. Lattice dynamics of a rotor-stator molecular crystal: Fullerene-cubane C<sub>60</sub>·C<sub>8</sub>H<sub>8</sub>  
Physical Review B **82**, 195413-1-195413-10 (2010)

Burkovsky R., Vakhrushev S.B., Shapiro S.M., Ivanov A., Hirota K., Matsuura M. Inelastic and quasielastic neutron scattering in PbMg<sub>1/3</sub>Nb<sub>2/3</sub>O<sub>3</sub> above the Burns temperature  
Ferroelectrics **400**, 372-386 (2010)

Calandrini V., Pellegrini E., Calligari P., Hinsén K., Kneller G.R. nMoldyn - Interfacing spectroscopic experiments, molecular dynamics simulations and models for time correlation functions

Collection SFN **12**, 201-232 (2011)

Candolfi C., Lenoir B., Dauscher A., Koza M.M., de Boissieu M., Sternik M., Parlinski K. Generalized phonon density of states of  $\text{Mo}_3\text{Sb}_7$  and  $\text{Mo}_3\text{Sb}_{5.4}\text{Te}_{1.6}$  from inelastic neutron scattering and lattice dynamical calculations

Physical Review B **84**, 224306-1-224306-8 (2011)

Chan W.K., Haverkate L.A., Borghols W.J.H., Wagemaker M., Picken S.J., van Eck E.R.H., Kentgens A.P.M., Johnson M.R., Kearley G.J., Mulder F.M. Direct view on nanoionic proton mobility

Advanced Functional Materials **21**, 1364-1374 (2011)

Chatterji T., Iles G.N., Frick B., Marcinkova A., Bos J.W.G. Direct evidence for the magnetic ordering of Nd ions in  $\text{NdFeAsO}$  by high-resolution inelastic neutron scattering

Physical Review B **84**, 132413-1-132413-4 (2011)

Cortes-Gil R., Clarke S.J. Structure, magnetism, and superconductivity of the layered iron arsenides  $\text{Sr}_{1-x}\text{Na}_x\text{Fe}_2\text{As}_2$

Chemistry of Materials **23**, 1009-1016 (2011)

Currat R. Transitions de phase structurales

Collection SFN **10**, 563-588 (2010)

Desmedt A., Soetens J.C., Prager M., Russina M., Ollivier J. Dynamics of methyl iodide clathrate hydrate, investigated by MD simulations and QENS experiments

Journal of Physical Chemistry C **115**, 12689-12701 (2011)

Došlić N., Gomzi V., Mališ M., Matanović I., Eckert J. Fluxionality of hydrogen ligands in  $\text{Fe}(\text{H})_2(\text{H}_2)(\text{PEtPh}_2)_3$

Inorganic Chemistry **50**, 10740-10747 (2011)

Dove M.T. Introduction to the theory of lattice dynamics

Collection SFN **12**, 123-159 (2011)

Dupuis A.C. Proton exchange membranes for fuel cells operated at medium temperatures: Materials and experimental techniques

Progress in Materials Science **56**, 289-327 (2011)

Jobic H., Santander J.E., Conner W.C., Wittaker G., Giriat G., Harrison A., Ollivier J., Auerbach S.M.

Experimental evidence of selective heating of molecules adsorbed in nanopores under microwave radiation

Physical Review Letters **106**, 157401-1-157401-4 (2011)

Johnson M.R., Kearley G.J. Modeling: What has it really contributed?

Neutron News **21**, 34-38 (2010)

Koza M.M., Leithe-Jasper A., Rosner H., Schnelle W., Mutka H., Johnson M.R., Krisch M., Capogna L., Grin Y. Vibrational dynamics of the filled skutterudites  $M_{1-x}\text{Fe}_4\text{Sb}_{12}$  ( $M=\text{Ca}, \text{Sr}, \text{Ba}, \text{and Yb}$ ): Temperature response, dispersion relation, and material properties

Physical Review B **84**, 014306-1-014306-12 (2011)



- Merzel F., Johnson M.R. Low-frequency vibrations of DNA and base pair opening  
Acta Chimica Slovenica **58**, 442-447 (2011)
- Mittal R., Chaplot S.L., Choudhury N. Inelastic neutron scattering, lattice dynamics, computer simulations and thermodynamic properties  
In "Thermodynamic Properties of Solids: Experiment and Modeling" Chaplot S.L. et al. Eds. (2010, Wiley-VCH) pp. 75-121
- Mittal R., Zbiri M., Rols S., Su Y., Xiao Y., Chaplot S.L., Schober H., Johnson M., Chatterji T., Matsuishi S., Hosono H., Brueckel T. Phonon dynamics in parent and superconducting FeAs compounds  
Chinese Journal of Physics **49**, 403-413 (2011)
- Möchel A., Sergueev I., Wille H.C., Jurányi F., Schober H., Schweika W., Brown S.R., Kauzlarich S.M., Hermann R.P. Lattice dynamics in the thermoelectric Zintl compound  $\text{Yb}_{14}\text{MnSb}_{11}$   
Physical Review B **84**, 184303-1-184303-10 (2011)
- Ondrejko P., Hlinka J., Kempa M., Kulda J., Luo H., Zhang Q. Inelastic neutron scattering study of lead-free relaxor ferroelectric  $(\text{Na}_{0.5}\text{Bi}_{0.5})_{0.96}\text{Ba}_{0.04}\text{TiO}_3$  single crystal  
Phase Transitions **84**, 829-836 (2011)
- Pajzderska A., Czarnecki P., Embs J.P., González M.A., Jurányi F., Krawczyk J., Peplińska B., Wąsicki J. A study of out-of-plane cation dynamics in a bis-thiourea pyridinium chloride inclusion compound  
Physical Chemistry - Chemical Physics **13**, 8908-8914 (2011)
- Pajzderska A., González M.A., Embs J.P., Wasicki J. Complex dynamics of pyridinium cation in ferroelectric bis(thiourea)pyridinium iodide studied by quasi-elastic neutron scattering  
Journal of Physical Chemistry C **115**, 15164-15171 (2011)
- Pajzderska A., Gonzalez M.A., Wąsicki J. Molecular dynamics simulation of cation dynamics in bis-thiourea pyridinium nitrate inclusion compound  
Journal of Chemical Physics **135**, 074508-1-074508-8 (2011)
- Parshin P.P., Zemlyanov M.G., Panova G.K., Shikov A.A., Naberezhnov A.A., Kumzerov Y.A., Golosovsky I.V., Ivanov A.S. Atomic dynamics of lead embedded into nanoporous glass  
Journal of Experimental and Theoretical Physics **111**, 996-1002 (2010)
- Salles F., Bourrelly S., Jobic H., Devic T., Guillerm V., Llewellyn P., Serre C., Férey G., Maurin G. Molecular insight into the adsorption and diffusion of water in the versatile hydrophilic/hydrophobic flexible MIL-53(Cr) MOF  
Journal of Physical Chemistry C **115**, 10764-10776 (2011)
- Severing A., Givord F., Boucherle J.X., Willers T., Rotter M., Fisk Z., Bianchi A., Fernández-Díaz M.T., Stunault A., Rainford B.D., Taylor J., Goremychkin E. Crystal fields in  $\text{YbInNi}_4$  determined with magnetic form factor and inelastic neutron scattering  
Physical Review B **83**, 155112-1-155112-6 (2011)

Smirnov L.S., Natkaniec I., Ivanov A.S., Pawlukoje A., Troyanov S.I. Vibrational modes of acid hydrogen in  $\text{CsH}_5(\text{PO}_4)_2$  and  $\text{NaH}_3\text{P}_2\text{O}_6$ : Inelastic neutron scattering  
Journal of Surface Investigation. X-rays, Synchrotron and Neutron Techniques **4**, 982-986 (2010)

Stockert O., Arndt J., Faulhaber E., Geibel C., Jeevan H.S., Kirchner S., Loewenhaupt M., Schmalzl K., Schmidt W., Si Q., Steglich F. Magnetically driven superconductivity in  $\text{CeCu}_2\text{Si}_2$   
Nature Physics **7**, 119-124 (2011)

Toudic B., Lefort R., Ecolivet C., Guérin L., Currat R., Bourges P., Breczewski T. Mixed acoustic phonons and phase modes in an aperiodic composite crystal  
Physical Review Letters **107**, 205502-1-205502-4 (2011)

Vakhrushev S.B., Ivanov A., Kumzerov Y.A., Naberezhnov A.A., Petrov A.A., Semkin V.N., Fokin A.V. Investigation of longitudinal vibrations of -O-H groups in chrysotile asbestos by neutron scattering and polarized infrared spectroscopy  
Physics of the Solid State **53**, 416-420 (2011)

Yang Q., Jobic H., Salles F., Kolokolov D., Guillerm V., Serre C., Maurin G. Probing the dynamics of  $\text{CO}_2$  and  $\text{CH}_4$  within the porous zirconium terephthalate  $\text{UiO-66}(\text{Zr})$ : A synergic combination of neutron scattering measurements and molecular simulations  
Chemistry - A European Journal **17**, 8882-8889 (2011)

Yaouanc A., Dalmas de Réotier P., Chapuis Y., Marin C., Vanishri S., Aoki D., Fåk B., Regnault L.P., Buisson C., Amato A., Baines C., Hillier A.D. Exotic transition in the three-dimensional spin-liquid candidate  $\text{Tb}_2\text{Ti}_2\text{O}_7$   
Physical Review B **84**, 184403-1-184403-7 (2011)

## **Materials Science and Engineering**

Acevedo C., Nussbaumer A., Drezet J.M. Evaluation of residual welding stresses and fatigue crack behavior in tubular K-joints in compression  
Stahlbau **80**, 483-491 (2011)

Aguadero A., Alonso J.A., Martínez-Coronado R., Martínez-Lope M.J., Fernández-Díaz M.T. Evaluation of  $\text{Sr}_2\text{CoMoO}_{6.8}$  as anode material in solid-oxide fuel cells: A neutron diffraction study  
Journal of Applied Physics **109**, 034907-1-034907-6 (2011)

Aksenov V.L., Khaidukov Y.N., Nikitenko Y.V. Peculiarities of magnetic states in ferromagnet/superconductor heterostructures due to the proximity effects  
Journal of Physics : Conference Series **211**, 012022-1-012022-6 (2010)

Altenkirch J., Steuerer A., Withers P.J. Process-microstructure-property correlations in Al-Li AA2199 friction stir welds  
Science and Technology of Welding & Joining **15**, 522-527 (2010)

Alvarez P., Gorria P., Sánchez Llamazares J.L., Pérez M.J., Franco V., Reiffers M., Kováč J., Puente-Orench I., Blanco J.A. Magneto-caloric effect in the pseudo-binary intermetallic YPrFe<sub>17</sub> compound  
Materials Chemistry and Physics **131**, 18-22 (2011)

Amir S.M., Gupta M., Gupta A., Stahn J., Wildes A. Surfactant induced symmetric and thermally stable interfaces in Cu/Co multilayers  
Journal of Physics Condensed Matter **23**, 485003-1-485003-9 (2011)

Bruno G., Efremov A.M., Levandovskiy A.N., Clausen B. Connecting the macro- and microstrain responses in technical porous ceramics: Modeling and experimental validations  
Journal of Materials Science **46**, 161-173 (2011)

Carlsson S.J.E., Levy-Bertrand F., Marcenat C., Sulpice A., Marcus J., Pairis S., Klein T., Núñez-Regueiro M., Garbarino G., Hansen T., Nassif V., Toulemonde P. Effect of the isoelectronic substitution of Sb for As on the magnetic and structural properties of LaFe(As<sub>1-x</sub>Sb<sub>x</sub>)O  
Physical Review B **84**, 104523-1-104523-9 (2011)

Coppola R., Asserin O., Aubert P., Braham C., Monnier A., Valli M., Diegele E. Characterization of residual stresses in Eurofer welded specimens: Measurements by neutron diffraction and comparison with weld modeling  
Journal of Nuclear Materials **417**, 51-54 (2011)

Davies C.M., Hughes D., Wimpory R.C., Dean D.W., Nikbin K.M. Measurements of residual stresses in 316 stainless steel weldments  
In "ASME Pressure Vessels and Piping" (2010)

de Gouvion Saint Cyr D. Etude d'une micro-algue radio-résistante accumulant des polluants radioactifs.  
Internal Report (2010)

Demourgues A., Wattiaux A. Investigation of Fe-based oxyhydroxy-fluoride with hollandite-type structure  
Journal of Fluorine Chemistry **132**, 690-697 (2011)

Deschamps A., Danoix F., De Geuser F., Epicier T., Leitner H., Perez M. Low temperature precipitation kinetics of Niobium Nitride platelets in Fe  
Materials Letters **65**, 2265-2268 (2011)

Dixon E., Hayward M.A. Suppression of magnetic order in Sr<sub>3</sub>Fe<sub>2</sub>O<sub>4</sub>Cl<sub>2</sub> by Fe-site substitution by cobalt  
Inorganic Chemistry **50**, 7250-7256 (2011)

Doubell P., van Rooyen C., Burger H. On-line leak sealing of safety injection system vessels by laser weld overlays  
In "7th International Symposium: Contributions of Materials Investigations to Improve the Safety and Performance of LWRs" (2010)

Drezet J.M., Evans A., Pirling T. Residual stresses in DC cast aluminum billet: Neutron diffraction measurements and thermomechanical modeling  
AIP Conference Proceedings **1353**, 1131-1136 (2011)

- Dubois M., Nady A., Krawitz A., Pirling T., Lodini A. Validation of a finite element model by neutron diffraction for the prediction of peen forming  
Materials Science Forum **638-642**, 760-765 (2010)
- Fernández de Luis R., Urtiaga M.K., Mesa J.L., Vidal K., Lezama L., Rojo T., Arriortua M.I. Short-range and long-range magnetic ordering, in third generation Brannerite type inorganic-organic vanadates:  $[\text{Mn}(\text{Bpy})\text{VO}_3]_2 \cdot n\text{H}_2\text{O}$  and  $[\text{Mn}(\text{Bpy})_{0.5}\text{VO}_3]_2 \cdot n\text{H}_2\text{O}$   
Chemistry of Materials **22**, 5543-5553 (2010)
- Fortes A.D., Suard E., Knight K.S. Negative linear compressibility and massive anisotropic thermal expansion in methanol monohydrate  
Science **331**, 742-746 (2011)
- Fragneto G., Menelle A. Progress in neutron reflectometry instrumentation  
European Physical Journal Plus **126**, 106-108 (2011)
- Galan I., Andrade C., Castellote M., Rebolledo N., Sanchez J., Toro L., Puente I., Campo J., Fabelo O. Neutron diffraction for studying the influence of the relative humidity on the carbonation process of cement pastes  
Journal of Physics : Conference Series **325**, 012015-1-012015-4 (2011)
- Goswami S., Bhattacharya D., Choudhury P., Ouladdiaf B., Chatterji T. Multiferroic coupling in nanoscale  $\text{BiFeO}_3$   
Applied Physics Letters **99**, 073106-1-073106-3 (2011)
- Goudar D.M., Turski M., Clitheroe S., Kingston E.J., Gill C., Withers P.J., Smith D.J. Measurement of residual stresses in surface treated stainless steel groove welds  
Materials Science Forum **681**, 49-54 (2011)
- Gupta M., Amir S.M., Gupta A., Stahn J. Surfactant mediated growth of Ti/Ni multilayers  
Applied Physics Letters **98**, 101912-1-101912-3 (2011)
- Gupta M., Tayal A., Gupta A., Gupta R., Stahn J., Horisberger M., Wildes A. Iron and nitrogen self-diffusion in non-magnetic iron nitrides  
Journal of Applied Physics **110**, 123518-1-123518-6 (2011)
- Hall S.A., Hughes D., Rowe S. Local characterisation of fluid flow in sandstone with localised deformation features through fast neutron imaging  
EPJ Web of Conferences **6**, 22008-p1-22008-p7 (2010)
- Hall S.A., Wright J., Pirling T., Andò E., Hughes D.J., Viggiani G. Can intergranular force transmission be identified in sand?  
Granular Matter **13**, 251-254 (2011)
- Hattingh D.G., Bulbring D.L.H., Els-Botes A., James M.N. Process parameter influence on performance of friction taper stud welds in AISI 4140 steel  
Materials & Design **32**, 3421-3430 (2011)

Hoppler J., Fritzsche H., Malik V.K., Stahn J., Cristiani G., Habermeier H.U., Rössle M., Honolka J., Enders A., Bernhard C. Polarized neutron reflectometry study of the magnetization reversal process in  $\text{YBa}_2\text{Cu}_3\text{O}_7/\text{La}_{2/3}\text{Ca}_{1/3}\text{MnO}_3$  superlattices grown on  $\text{SrTiO}_3$  substrates  
*Physical Review B* **82**, 174439-1-174439-9 (2010)

Huang E.W., Liu Y., Ren Y., Porcar L., Kai J.J., Liaw P.K., Smith G.S., Chen W.R. Evolution of microstructure in a nickel-based superalloy as a function of ageing time  
*Philosophical Magazine Letters* **91**, 483-490 (2011)

Islam A.T.M.N., Pieper O., Lake B., Siemensmeyer K. Unconventional growth mechanism in optical traveling solvent floating zone growth of large  $\beta\text{-CuNb}_2\text{O}_6$  single crystals  
*Crystal Growth & Design* **11**, 154-157 (2011)

Karadge M., Grant B., Withers P.J., Baxter G., Preuss M. Thermal relaxation of residual stresses in nickel-based superalloy inertia friction welds  
*Metallurgical and Materials Transactions A* **42**, 2301-2311 (2011)

Khan M.K., Fitzpatrick M.E., Hainsworth S.V., Evans A.D., Edwards L. Application of synchrotron X-ray diffraction and nanoindentation for the determination of residual stress fields around scratches  
*Acta Materialia* **59**, 7508-7520 (2011)

Khaydukov Y.N., Aksenov V.L., Nikitenko Y.V., Zhernenkov K.N., Nagy B., Teichert A., Steitz R., Rühm A., Bottyán L. Magnetic proximity effects in V/Fe superconductor/ferromagnet single bilayer revealed by waveguide-enhanced polarized neutron reflectometry  
*Journal of Superconductivity and Novel Magnetism* **24**, 961-968 (2011)

Lambri O.A., Cuello G.J., Zelada-Lambri G.I., Bozzano P.B., García J.A. Dislocations and point defects in neutron irradiated single crystalline Mo at elevated temperatures  
*Journal of Physics : Conference Series* **325**, 012017-1-012017-4 (2011)

Laulhé C., Hippert F., Kreisel J., Pasturel A., Simon A., Hazemann J.L., Bellissent R., Cuello G.J. Random local strain effects in the relaxor ferroelectric  $\text{BaTi}_{1-x}\text{Zr}_x\text{O}_3$ : Experimental and theoretical investigation  
*Phase Transitions* **84**, 438-452 (2011)

László K., Geissler E. The competitive role of water in sorption processes on porous carbon surfaces  
*NATO Security through Science Series*, 51-59 (2011)

Lázpita P., Barandiarán J., Gutiérrez J., Feuchtwanger J., Chernenko V.A., Richard M.L. Magnetic moment and chemical order in off-stoichiometric Ni-Mn-Ga ferromagnetic shape memory alloys  
*New Journal of Physics* **13**, 033039-1-033039-14 (2011)

Loureiro J.M., Malaman B., Costa B.F.O., Le Caër G., Khomchenko V.A., Das S., Amaral V.S. Comparison of disorder induced by annealing and quench and by ball-milling in B2 FeCo  
*Physica Status Solidi (c)* **8**, 3087-3090 (2011)

Lyubina J. Recent advances in the microstructure design of materials for near room temperature magnetic cooling (invited)

Journal of Applied Physics **109**, 07A902-1-07A902-6 (2011)

Manfrinetti P., Morozkin A.V., Isnard O., Wrubl F., Mozharivskij Y., Svitlyk V. Magnetic ordering of novel  $\text{La}_3\text{NiGe}_2$ -type  $\text{R}_3\text{CoGe}_2$  compounds (R = Pr, Nd, Sm, Gd-Dy)  
Intermetallics **19**, 321-326 (2011)

Martínez-Coronado R., Aguadero A., de la Calle C., Fernández M.T., Alonso J.A. Evaluation of the  $\text{R}_2\text{RuMnO}_7$  pyrochlores as cathodes in solid-oxide fuel cells  
Journal of Power Sources **196**, 4181-4186 (2011)

Mazumder S., Sen D., Loidl R., Rauch H. Dynamical scaling and isotope effect in temporal evolution of mesoscopic structure during hydration of cement  
Physical Review B **84**, 134302-1-134302-8 (2011)

Milenov T.I., Rafailov P.M., Tomov V., Nikolova R.P., Skumryev V., Igartua J.M., Madariaga G., López G.A., Iturbe-Zabalo E., Gospodinov M.M. Growth and characterization of  $\text{Pb}_3\text{Ni}_{1.5}\text{Mn}_{5.5}\text{O}_{15}$  single crystal  
Journal of Physics Condensed Matter **23**, 156001-1-156001-5 (2011)

Moat R.J., Pinkerton A.J., Li L., Withers P.J., Preuss M. Residual stresses in laser direct metal deposited Waspaloy  
Materials Science and Engineering A **528**, 2288-2298 (2011)

Müller M., Krasnov I., Ogurreck M., Blankenburg M., Pazera T., Seydel T. Wood and silk: Hierarchically structured biomaterials investigated in situ with X-ray and neutron scattering  
Advanced Engineering Materials **13**, 767-772 (2011)

Neamțu B.V., Chicinaș I., Isnard O., Popa F., Pop V. Influence of wet milling conditions on the structural and magnetic properties of  $\text{Ni}_3\text{Fe}$  nanocrystalline intermetallic compound  
Intermetallics **19**, 19-25 (2011)

Neamțu B.V., Isnard O., Chicinaș I., Pop V. Structural and magnetic properties of nanocrystalline  $\text{NiFeCuMo}$  powders produced by wet mechanical alloying  
Journal of Alloys and Compounds **509**, 3632-3637 (2011)

Patra M., Majumdar S., Giri S., Iles G.N., Chatterji T. Anisotropic magnetocaloric effect in single-crystalline  $\text{Pr}_{0.52}\text{Sr}_{0.48}\text{MnO}_3$   
Journal of Superconductivity and Novel Magnetism **24**, 775-777 (2011)

Pirez C., Capron M., Jobic H., Dumeignil F., Jalowiecki-Duhamel L. Highly efficient and stable  $\text{CeNiH}_2\text{O}_Y$  nano-oxyhydride catalyst for  $\text{H}_2$  production from ethanol at room temperature  
Angewandte Chemie International Edition **50**, 1-6 (2011)

Prigent J., Joubert J.M., Gupta M. Investigation of modification of hydrogenation and structural properties of  $\text{LaNi}_5$  intermetallic compound induced by substitution of Ni by Pd  
Journal of Solid State Chemistry **184**, 123-133 (2011)

- Requena G., Garcés G., Asghar Z., Marks E., Staron P., Cloetens P. The effect of the connectivity of rigid phases on strength of Al-Si alloys  
Advanced Engineering Materials **13**, 674-684 (2011)
- Rols S., Papoular R.J., Davydov V.A., Rakhmanina A.V., Autret C., Agafonov V. Study of C<sub>60</sub> peapods after a high-pressure-high-temperature treatment  
Fullerenes, Nanotubes and Carbon Nanostructures **18**, 412-416 (2010)
- Sánchez-Alarcos V., Pérez-Landazábal J.I., Recarte V. Effect of Co and Mn doping on the martensitic transformations and magnetic properties of Fe-Pd ferromagnetic shape memory alloys  
Materials Science Forum **635**, 103-110 (2010)
- Sarvezuk P.W.C., Kinast E.J., Colin C.V., Gusmão M.A., da Cunha J.B.M., Isnard O. Suppression of magnetic ordering in quasi-one-dimensional Fe<sub>x</sub>Co<sub>1-x</sub>Nb<sub>2</sub>O<sub>6</sub> compounds  
Physical Review B **83**, 174412-1-174412-9 (2011)
- Sáez Puche R., Climent E., Rabie M.G., Romero J., Gallardo J.M. Neutron diffraction characterization and magnetic properties of the scheelite-type ErCrO<sub>4</sub> polymorph  
Journal of Physics : Conference Series **325**, 012012-1-012012-4 (2011)
- Sánchez-Alarcos V., Pérez-Landazábal J.I., Recarte V. Influence of long-range atomic order on the structural and magnetic properties of Ni-Mn-Ga ferromagnetic shape memory alloys  
Materials Science Forum **684**, 85-103 (2011)
- Shima T., Luo Y., Stewart T., Bau R., McIntyre G.J., Mason S.A., Hou Z. Molecular heterometallic hydride clusters composed of rare-earth and *d*-transition metals  
Nature Chemistry **3**, 814-820 (2011)
- Sommadossi S., Aurelio G., Cuello G.J. Structural investigation in Cu-In-Sn alloys around 60 at. % Cu for Pb-free transient liquid phase bonding  
Journal of Physics : Conference Series **325**, 012026-1-012026-4 (2011)
- Sprael J.M. Enhanced macro and micro stress evaluation diffraction techniques applied to biomedical materials  
Materials Science Forum **638-642**, 706-711 (2010)
- Strunz P., Schumacher G., Klingelhöffer H., Wiedenmann A., Šaroun J., Keiderling U. *In situ* observation of morphological changes of  $\gamma'$  precipitates in a pre-deformed single-crystal Ni-base superalloy  
Journal of Applied Crystallography **44**, 935-944 (2011)
- Taran Y.V., Balagurov A.M., Schreiber J., Evans A., Venter A.M. Residual stresses in biaxially fatigued austenitic stainless steel sample of cruciform geometry  
Physics of Particles and Nuclei Letters **8**, 136-140 (2011)
- Tishkova V., Demirdjian B., Ferry D., Johnson M. Neutron diffraction study of water freezing on aircraft engine combustor soot  
Physical Chemistry - Chemical Physics **13**, 20729-20735 (2011)

Vykhodets V.B., Kurennykh T.E., Kesarev A.G., Kuznetsov M.V., Kondrat'ev V.V., Hülsen C., Koester U.  
Diffusion of insoluble carbon in zirconium oxides  
JETP Letters **93**, 5-9 (2011)

Vykhodets V.B., Kurennykh T.E., Kesarev A.G., Kuznetsov M.V., Kondrat'ev V.V., Hülsen C., Koester U.  
Диффузия нерастворимого углерода в оксидах циркония  
JETP Letters **93**, 5-9 (2011)

Wolff M., Gutfreund P., Rühm A., Akgun B., Zabel H. Nanoscale discontinuities at the boundary of flowing liquids: A look into structure  
Journal of Physics Condensed Matter **23**, 184102-1-184102-9 (2011)