

PUBLICATION IN 2013

In 2013, the ILL received notice of 587 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	45
Biology	59
Crystallography	99
Liquids and Glasses	30
Magnetic Excitations	54
Magnetic Structures	88
Materials Science and Engineering	40
Nuclear and Particle Physics	47
Theory	6
Soft Matter	78
Spectroscopy in Solid State Physics and Chemistry	41

ILL PHD STUDENTSHIPS

PhD students at ILL in 2013*	45
PhD theses completed in 2013	7

* Receiving a grant from ILL.



PHD THESIS REGISTERED IN 2013

**Bedouret L.**

Modélisation théorique et expérimentale du mécanisme de conduction protonique dans un clathrate hydrate ionique.

From Université de Bordeaux 1, France, 2013

Berts I.

Relating the bulk and interface structure of hyaluronan to physical properties of future biomaterials.

From Faculty of Science and Technology, Uppsala, Sweden, 2013

Calvo-Almazán I.

Molecular diffusion on surfaces: The diffusive behavior of aromatic compounds absorbed on graphitic surfaces studied with Quasi-Elastic-Neutron Scattering (QENS).

From Universidad de Zaragoza, Spain, 2013

Ellis K.J.

Neutron and muon studies of spin dynamics in magnetic systems.

From University of Huddersfield, United Kingdom, 2013

Klauser C.

High precision neutron polarization for PERC.

From Institut Laue-Langevin, Grenoble, France / Technischen Universität Wien, Austria, 2013

Lakhloufi S.

Investigation du mécanisme de la conversion de spin par diffraction des rayonnements (X et neutrons) : Nouvelles approches.

From Ecole Doctorale de Physique, Bordeaux, France, 2013

APPLIED PHYSICS, INSTRUMENTATION AND TECHNIQUES



Andersen K., Bigault T., Birch J., Buffet J.C., Correa J., Hall-Wilton R., Hultman L., Höglund C., Guérard B., Jensen J., Khaplanov A., Kirstein O., Piscitelli F., Van Esch P., Vettier C. ^{10}B multi-grid proportional gas counters for large area thermal neutron detectors
Nuclear Instruments and Methods in Physics Research A **720**, 116-121 (2013)

Andreev A.Z., Glushkov A.G., Geltenbort P., Ezhov V.F., Knyaz'kov V.A., Krygin G.B., Ryabov V.I. Ultracold neutron cooling upon reflection from a moving wall
Technical Physics Letters **39**, 370-373 (2013)

Bick J.P., Honecker D., Döbrich F., Suzuki K., Gilbert E.P., Frielinghaus H., Kohlbrecher J., Gavilano J., Forgan E.M., Schweins R., Lindner P., Birringer R., Michels A. Magnetization reversal in Nd-Fe-B based nanocomposites as seen by magnetic small-angle neutron scattering
Applied Physics Letters **102**, 022415-1-022415-5 (2013)

Bick J.P., Suzuki K., Gilbert E.P., Forgan E.M., Schweins R., Lindner P., Kübel C., Michels A. Exchange-stiffness constant of a Nd-Fe-B based nanocomposite determined by magnetic neutron scattering
Applied Physics Letters **103**, 122402-1-122402-4 (2013)

Birch J., Buffet J.C., Correa J., Van Esch P., Guérard B., Hall-Wilton R., Höglund C., Hultman L., Khaplanov A., Piscitelli F. $^{10}\text{B}_4\text{C}$ Multi-grid as an alternative to ^3He for large area neutron detectors
IEEE Transactions on Nuclear Science **60**, 871-878 (2013)

Boehm M., Filhol A., Raoul Y., Kulda J., Schmidt W., Schmalzl K., Farhi E. The vTAS suite: A simulator for classical and multiplexed three-axis neutron spectrometers
Nuclear Instruments and Methods in Physics Research A **697**, 40-44 (2013)

Ehlers G., Stewart J.R., Wildes A.R., Deen P.P., Andersen K.H. Generalization of the classical xyz-polarization analysis technique to out-of-plane and inelastic scattering
Review of Scientific Instruments **84**, 093901-1-093901-8 (2013)

Fayard B., Pouyet E., Berruyer G., Bugnazet D., Cornu C., Cotte M., De Andrade V., Di Chiaro F., Hignette O., Kieffer J., Martin T., Papillon E., Salomé M., Sole V. The new ID21 XANES full-field end-station at ESRF
Journal of Physics : Conference Series **425**, 192001-1-192001-4 (2013)

Fischer M., Freund A.K., Gsell S., Schreck M., Courtois P., Stahl C., Borchert G., Ofner A., Skoulatos M., Andersen K.H. Structural analysis of diamond mosaic crystals for neutron monochromators using synchrotron radiation
Diamond and Related Materials **37**, 41-49 (2013)

Gourgiotis A., Isnard H., Nonell A., Aubert M., Stadelmann G., Dupont E., AlMahamid I., Tiang G., Rao L., Lukens W., Cassette P., Panebianco S., Letourneau A., Chartier F. Bk and Cf chromatographic separation and $^{249}\text{Bk}/^{248}\text{Cm}$ and $^{249}\text{Ci}/^{248}\text{Cm}$ elemental ratios determination by inductively coupled plasma quadrupole mass spectrometry
Talanta **106**, 39-44 (2013)

Guidi V., Bellucci V., Camattari R., Neri I. Curved crystals for high-resolution focusing of X and gamma rays through a Laue lens
Nuclear Instruments and Methods in Physics Research B **309**, 249-253 (2013)

Gupta R., Gupta A., Gupta M., Rajput P., Wildes A. Evolution of structural and magnetic properties of amorphous CoFeB film with thermal annealing
Journal of Applied Physics **114**, 063903-1-063903-9 (2013)

Jenke T., Cronenberg G., Filter H., Geltenbort P., Klein M., Lauer T., Mitsch K., Saul H., Seiler D., Stadler D., Thalhammer M., Abele H. Ultracold neutron detectors based on ^{10}B converters used in the qBounce experiments
Nuclear Instruments and Methods in Physics Research A **732**, 1-8 (2013)



Jericha E., Badurek G., Gösselsberger C. Towards a modelling of USANSPOL intensities from magnetic ribbons
Physics Procedia **42**, 58-65 (2013)

Khaplanov A., Piscitelli F., Buffet J.C., Clergeau J.F., Correa J., Esch P., Ferraton M., Guérard B., Hall-Wilton R. Investigation of gamma-ray sensitivity of neutron detectors based on thin converter films
Journal of Instrumentation **8**, P10025-1-P10025-19 (2013)

Klauser C., Bigault T., Rebroya N., Soldner T. Ultra-sensitive depolarization study of polarizing CoTi supermirrors with the opaque test bench
Physics Procedia **42**, 99-105 (2013)

Knudsen E.B., Prodi A., Baltser J., Thomsen M., Willendrup P.K., Sánchez del Río M., Ferrero C., Farhi E., Haldrup K., Vickery A., Feidenhans'l R., Mortensen K., Nielsen M.M., Poulsen H.F., Schmidt S., Lefmann K. *McXtrace*: A Monte Carlo software package for simulating X-ray optics, beamlines and experiments
Journal of Applied Crystallography **46**, 679-696 (2013)

Mino L., Agostini G., Borfecchia E., Gianolio D., Piovano A., Gallo E., Lamberti C. Low-dimensional systems investigated by X-ray absorption spectroscopy: A selection of 2D, 1D and 0D cases
Journal of Physics D: Applied Physics **46**, 423001-1-423001-72 (2013)

Mishra S.K., Mittal R., Singh R., Zbiri M., Hansen T.C., Schober H. Phase stability of multiferroic GaFeO₃ up to 1368 K from *in situ* neutron diffraction
Journal of Applied Physics **113**, 174102-1-174102-5 (2013)

Mittal R., Zbiri M., Schober H., Achary S.N., Tyagi A.K., Chaplot S.L. Colossal thermal expansion behavior of Ag₃M(CN)₆ (M=Co,Fe)
AIP Conference Proceedings **1512**, 812-813 (2013)

Morozov A., Defendi I., Engels R., Fraga F.A.F., Fraga M.M.F.R., Gongadze A., Guérard B., Jurkovic M., Kemmerling G., Manzin G., Margato L.M.S., Niko H., Pereira L., Petrillo C., Peyaud A., Piscitelli F., Raspino D., Rhodes N., Sacchetti F., Schooneveld E.M., Solovov V., Esch P., Zeitelhack K. Adaptive algorithms of position and energy reconstruction in Anger-camera type detectors: Experimental data processing in ANTS
Journal of Instrumentation **8**, P05002-1-P05002-25 (2013)

Piscitelli F., Van Esch P. Analytical modeling of thin film neutron converters and its application to thermal neutron gas detectors
Journal of Instrumentation **8**, P04020-1-P04020-27 (2013)

Pokotilovski Y.N. Strongly coupled chameleon fields: Possible test with a neutron Lloyd's mirror interferometer
Physics Letters B **719**, 341-345 (2013)

Prosandeev S., Raevski I.P., Malitskaya M.A., Raevskaya S.I., Chen H., Chou C.C., Dkhil B. Condensation of the atomic relaxation vibrations in lead-magnesium-niobate at $T=T^*$
Journal of Applied Physics **114**, 124103-1-124103-9 (2013)

Rennie A.R., Hellsing M.S., Wood K., Gilbert E.P., Porcar L., Schweins R., Dewhurst C.D., Lindner P., Heenan R.K., Rogers S.E., Butler P.D., Krzywon J.R., Ghosh R.E., Jackson A.J., Malfois M. Learning about SANS instruments and data reduction from round robin measurements on samples of polystyrene latex
Journal of Applied Crystallography **46**, 1289-1297 (2013)

Rolph J., Iqbal N., Hoffman M., Evans A., Hardy M.C., Glavicic M.G., Preuss M. The effect of d_0 reference value on a neutron diffraction study of residual stress in a γ/γ' nickel-base superalloy
Journal of Strain Analysis for Engineering Design **48**, 219-228 (2013)



Rothe S., Andreyev A.N., Antalic S., Borschevsky A., Capponi L., Cocolios T.E., De Witte H., Eliav E., Fedorov D.V., Fedosseev V.N., Fink D.A., Fritzsche S., Ghys L., Huyse M., Imai N., Kaldor U., Kudryavtsev Y., Köster U., Lane J.F.W., Lassen J., Liberati V., Lynch K.M., Marsh B.A., Nishio K., Pauwels D., Pershina V., Popescu L., Procter T.J., Radulov D., Raeder S., Rajabali M.M., Rapisarda E., Rossel R.E., Sandhu K., Seliverstov M.D., Sjödin A.M., Van den Bergh P., Van Duppen P., Venhart M., Wakabayashi Y., Wendt K.D.A. Measurement of the first ionization potential of astatine by laser ionization spectroscopy
Nature Communications **4**, 1835-1-1835-6 (2013)

Salvat D.J., Gutmiedl E., Liu C.Y., Geltenbort P., Orecchini A., Paul S., Schober H. Investigating solid α - $^{15}\text{N}_2$ as a new source of ultra-cold neutrons
Europhysics Letters **103**, 12001-p1-12001-p5 (2013)

Saunders A., Makela M., Bagdasarova Y., Back H.O., Boissevain J., Broussard I.J., Bowles T.J., Carr R., Currie S.A., Filippone B., García A., Geltenbort P., Hickerson K.P., Hill R.E., Hoagland J., Hoedl S., Holley A.T., Hogan G., Ito T.M., Lamoreaux S., Liu C., Liu J., Mammei R.R., Martin J., Melconian D., Mendenhall M.P., Morris C.L., Mortensen R.N., Pattie R.W., Pitt M., Plaster B., Ramsey J., Rios R., Sallaska A., Seestrom S.J., Sharapov E.I., Sjøe S., Sondheim W.E., Teasdale W., VornDick B., Young A.R., Vogelaar R.B., Wang Z., Xu Y. Performance of the Los Alamos National Laboratory spallation-driven solid-deuterium ultra-cold neutron source
Review of Scientific Instruments **84**, 013304-1-013304-10 (2013)

Schneck E., Jentschel M., Gege C., Tanaka M., Demé B. Grazing-incidence neutron-induced fluorescence probes density profiles of labeled molecules at solid/liquid interfaces
Langmuir **29**, 4084-4091 (2013)

Terrón S., Sordo F., Magán M., Ghiglinò A., Martínez F., de Vicente P.J., Vivanco R., Thomsen K., Perlado J.M., Bermejo F.J., Abanades A. Conceptual design of the beryllium rotating target for the ESS-Bilbao facility
Nuclear Instruments and Methods in Physics Research A **724**, 34-40 (2013)

Topham P.D., Glidle A., Toolan Daniel T. W., Weir Michael P., Skoda M.W.A., Barker R., Howse J.R. The relationship between charge density and polyelectrolyte brush profile using simultaneous neutron reflectivity and *in situ* attenuated total internal reflection FTIR
Langmuir **29**, 6068-6076 (2013)

Udby L., Jensen P., Bruun J., Willendrup P., Schober H., Neuhaus J., Nielsen J.S.B., Pulz J., Lefmann K. E-learning neutron scattering
Neutron News **24**, 18-23 (2013)

Webber J.B.W. Nano-metrology of porous structures - I Comparison of measured neutron scattering with calculated scattering to access pore lattice, diameter, and wall parameters, using models of extended arrays of regular or randomised pores
Physics Reports **526**, 227-248 (2013)

Wolff M., Kuhns P., Liesche G., Ankner J.F., Browning J.F., Gutfreund P. Combined neutron reflectometry and rheology
Journal of Applied Crystallography **46**, 1729-1733 (2013)

Wong H.C., Higgins A.M., Wildes A.R., Douglas J.F., Cabral J.T. Patterning polymer-fullerene nanocomposite thin films with light
Advanced Materials **25**, 985-991 (2013)

Zhang S.Y., Evans A., Eren E., Chen B., Pavier M., Wang Y., Pierret S., Moat R., Mori B. -ENGIN-X - Instrument for materials science and engineering research
Neutron News **24**, 22-26 (2013)



Zoubos H., Koutsokeras L.E., Anagnostopoulos D.F., Lidorikis E., Kalogirou S.A., Wildes A.R., Kelires P.C., Patsalas P. Broadband optical absorption of amorphous carbon/Ag nanocomposite films and its potential for solar harvesting applications
Solar Energy Materials and Solar Cells **117**, 350-356 (2013)

Acevedo C., Drezet J.M., Nussbaumer A. Numerical modelling and experimental investigation on welding residual stresses in large-scale tubular K-joints
Fatigue and Fracture of Engineering Materials and Structures **36**, 177-185 (2012)

Cser L., Krexner G., Marko M. Neutron holography as a technique for probing local atomic structures on the nanoscale
In "Developments in Surface Contamination and Cleaning - Contaminant Removal and Monitoring" (2012, Elsevier) pp. 191-217

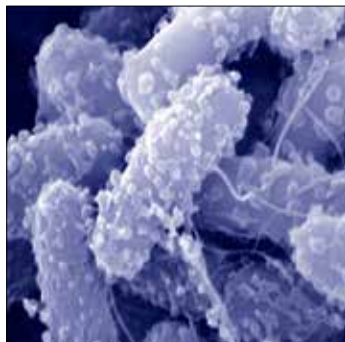
Günther M.M., Jentschel M., Thirolf P.G., Seggebrock T., Habs D. Seeded quantum FEL at 478 keV
AIP Conference Proceedings **1462**, 173-176 (2012)

Jentschel M., Günther M.M., Habs D., Thirolf P.G. Gamma ray optics
AIP Conference Proceedings **1462**, 185-190 (2012)

Neri I., Camattari R., Bellucci V., Guidi V., Bastie P. Stack of curved crystals as optical component for hard X- and gamma-ray focusing through a Laue lens
Proceedings SPIE **8443**, 844334-1-844334-10 (2012)

Savchyn P., Karbovnyk I., Vistovsky V., Voloshinovskii A., Pankratov V., Cestelli Guidi M., Mirri., Myahkota O., Riabtseva A., Mitina N., Zaichenko A., Popov A.I. Vibrational properties of LaPO₄ nanoparticles in mid- and far-infrared domain
Journal of Applied Physics **112**, 124309-1-124309-6 (2012)

Thibault X. Neutron techniques for wood chemistry
Cellulose Chemistry and Technology **46**, 421-425 (2012)



Abuillan W., Schneck E., Körner A., Brandenburg K., Gutschmann T., Gill T., Vorobiev A., Kononov O., Tanaka M. Physical interactions of fish protamine and antiseptic peptide drugs with bacterial membranes revealed by combination of specular X-ray reflectivity and grazing-incidence X-ray fluorescence
Physical Review E **88**, 012705-1-012705-11 (2013)

Alsteens D., Martinez N., Jamin M., Jacob-Dubuisson F. Sequential unfolding of beta helical protein by single-molecule atomic force microscopy
PLoS One **8**, e73572-1-e73572-10 (2013)

Benedetto A. Protein dynamics by neutron scattering
Biophysical Chemistry **182**, 16-22 (2013)

Blakeley M.P., Fisher S.J. Macromolecular neutron diffraction
Encyclopedia of Biophysics, 1353-1361 (2013)

Bobone S., Gerelli Y., De Zotti M., Bocchinfuso G., Farrotti A., Orioni B., Sebastiani F., Latter E., Penfold J., Senesi R., Formaggio F., Palleschi A., Toniolo C., Fragneto G., Stella L. Membrane thickness and the mechanism of action of the short peptaibol trichogin GA IV
Biochimica et Biophysica Acta **1828**, 1013-1024 (2013)

Breyton C., Flayhan A., Gabel F., Lethier M., Durand G., Boulanger P., Chami M., Ebel C. Assessing the conformational changes of pb5, the receptor-binding protein of phage T5, upon binding to its *Escherichia coli* receptor FhuA
Journal of Biological Chemistry **288**, 30763-30772 (2013)

Breyton C., Gabel F., Lethier M., Flayhan A., Durand G., Jault J.M., Juillan-Binard C., Imbert L., Moulin M., Ravaud S., Härtle M., Ebel C. Small angle neutron scattering for the study of solubilised membrane proteins
European Physical Journal E **36**, 71-1-71-16 (2013)

Callaway D.J.E., Farago B., Bu Z. Nanoscale protein dynamics: A new frontier for neutron spin echo spectroscopy
European Physical Journal E **36**, 76-1-76-8 (2013)

Chen X., Sa'adedin F., Demé B., Rao P., Bradshaw J. Insertion of TAT peptide and perturbation of negatively charged model phospholipid bilayer revealed by neutron diffraction
Biochimica et Biophysica Acta **1828**, 1982-1988 (2013)

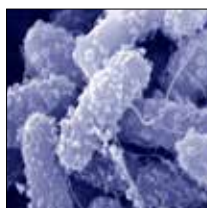
Clifton L.A., Neylon C., Lakey J.H. Examining protein-lipid complexes using neutron scattering
Methods in Molecular Biology **974**, 119-150 (2013)

Cuypers M.G., Mason S.A., Blakeley M.P., Mitchell E.P., Haertlein M., Forsyth V.T. Near-atomic resolution neutron crystallography on perdeuterated *Pyrococcus furiosus* rubredoxin: Implication of hydronium ions and protonation state equilibria in redox changes
Angewandte Chemie International Edition **52**, 1022-1025 (2013)

Cuypers M.G., Trubitsyna M., Callow P., Forsyth V.T., Richardson J.M. Solution conformations of early intermediates in *Mos1* transposition
Nucleic Acids Research **41**, 2020-2033 (2013)

Fenimore P.W., Frauenfelder H., Magazù S., McMahon B.H., Mezei F., Migliardo F., Young R.D., Stroe I. Concepts and problems in protein dynamics
Chemical Physics **424**, 2-6 (2013)

Fragneto G., Gabel F. Editorial on the topical issue "Neutron Biological Physics"
European Physical Journal E **36**, 81-1-81-2 (2013)



Fujiwara S., Plazanet M., Oda T. Coupling of the hydration water dynamics and the internal dynamics of actin detected by quasielastic neutron scattering
Biochemical and Biophysical Research Communications **431**, 542-546 (2013)

Gerelli Y., Porcar L., Lombardi L., Fragneto G. Lipid exchange and flip-flop in solid supported bilayers
Langmuir **29**, 12762-12769 (2013)

Gogonea V., Gerstenecker G.S., Wu Z., Lee X., Topbas C., Wagner M.A., Tallant T.C., Smith J.D., Callow P., Pipich V., Malet H., Schoehn G., DiDonato J.A., Hazen S.L. The low-resolution structure of nHDL reconstituted with DMPC with and without cholesterol reveals a mechanism for particle expansion
Journal of Lipid Research **54**, 966-983 (2013)

Golub M., Lott D., Watkins E.B., Garamus V., Luthringer B., Stoermer M., Schreyer A., Willumeit R. X-ray and neutron investigation of self-assembled lipid layers on a titanium surface
Biointerphases **8**, 21-1-21-11 (2013)

Hellstrand E., Grey M., Ainalem M.L., Ankner J., Forsyth V.T., Fragneto G., Haertlein M., Dauvergne M.T., Nilsson H., Brundin P., Linse S., Nylander T., Sparr E. Adsorption of α -synuclein to supported lipid bilayers: Positioning and role of electrostatics
ACS Chemical Neuroscience **4**, 1339-1351 (2013)

Hennig J., Wang I., Sonntag M., Gabel F., Sattler M. Combining NMR and small angle X-ray and neutron scattering in the structural analysis of a ternary protein-RNA complex
Journal of Biomolecular NMR **56**, 17-30 (2013)

Hirai M., Kimura R., Takeuchi K., Sugiyama M., Kasahara K., Ohta N., Farago B., Stadler A., Zaccari G. Change of dynamics of raft-model membrane induced by amyloid- β protein binding
European Physical Journal E **36**, 74-1-74-10 (2013)

Knoll W., Peters J., Gerelli Y., Kursula P., Natali F. The influence of the myelin basic protein C8 mutant on the dynamics of myelin membranes
Journal of the Physical Society of Japan **82**, SA018-1-SA018-5 (2013)

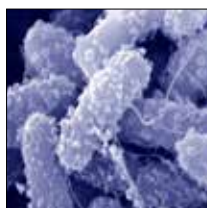
Lapinaite A., Simon B., Skjaerven L., Rakwalska-Bange M., Gabel F., Carlomagno T. The structure of the box C/D enzyme reveals regulation of RNA methylation
Nature **502**, 519-523 (2013)

Mangiapia G., Vitiello G., Irace C., Santamaria R., Colonna A., Angelico R., Radulescu A., D'Errico G., Montesarchio D., Paduano L. Anticancer cationic ruthenium nanovectors: From rational molecular design to cellular uptake and bioactivity
Biomacromolecules **14**, 2549-2560 (2013)

Martinez N., Ribeiro E.A., Leyrat C., Tarbouriech N., Ruigrok R.W.H., Jamin M. Structure of the C-terminal domain of lettuce necrotic yellows virus phosphoprotein
Journal of Virology **87**, 9569-9578 (2013)

Marty V., Jasnin M., Fabiani E., Vaublanc P., Gabel F., Trapp M., Peters J., Zaccari G., Franzetti B. Neutron scattering: A tool to detect *in vivo* thermal stress effects at the molecular dynamics level in micro-organisms
Journal of the Royal Society Interface **10**, 20130003-1-20130003-6 (2013)

Mason P.E., Neilson G.W., Saboungi M.L., Brady J.W. The conformation of a ribose derivative in aqueous solution: A neutron-scattering and molecular dynamics study
Biopolymers **99**, 739-745 (2013)



Matsuo T., Natali F., Plazanet M., Zaccai G., Fujiwara S. Dynamics of cardiomyopathy-causing mutant of troponin measured by neutron scattering
Journal of the Physical Society of Japan **82**, SA020-1-SA020-5 (2013)

Mell M., Moleiro L.H., Hertle Y., Fouquet P., Schweins R., López-Montero I., Hellweg T., Monroy F. Bending stiffness of biological membranes: What can be measured by neutron spin echo?
European Physical Journal E **36**, 75-1-75-13 (2013)

Migliardo F., Caccamo M.T., Magazù S. Elastic incoherent neutron scattering findings on homologous disaccharides
European Chemical Bulletin **2**, 397-400 (2013)

Migliardo F., Caccamo M.T., Magazù S. Elastic incoherent neutron scatterings wavevector and thermal analysis on glass-forming homologous disaccharides
Journal of Non-Crystalline Solids **378**, 144-151 (2013)

Mojumdar E.H., Groen D., Gooris G.S., Barlow D.J., Lawrence M.J., Demé B., Bouwstra J.A. Localization of cholesterol and fatty acid in a model lipid membrane: A neutron diffraction approach
Biophysical Journal **105**, 911-918 (2013)

Natali F., Dolce C., Peters J., Gerelli Y., Stelletta C., Leduc G. Water dynamics in neural tissue
Journal of the Physical Society of Japan **82**, SA017-1-SA017-7 (2013)

Natali F., Gerelli Y., Stelletta C., Peters J. Anomalous proton dynamics of water molecules in neural tissue as seen by quasi-elastic neutron scattering. Impact on medical imaging techniques
AIP Conference Proceedings **1518**, 551-557 (2013)

Ngai K.L., Capaccioli S., Paciaroni A. Change of caged dynamics at T_g in hydrated proteins: Trend of mean squared displacements after correcting for the methyl-group rotation contribution
Journal of Chemical Physics **138**, 235102-1-235102-14 (2013)

Paciaroni A., Conti Nibali V., Orecchini A., Petrillo C., Haertlein M., Moulin M., Tarek M., D'Angelo G., Sacchetti F. Vibrational excitations of proteins and their hydration water in the far-infrared range
Chemical Physics **424**, 80-83 (2013)

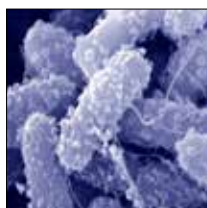
Peters J., Giudici-Orticoni M.T., Zaccai G., Guiral M. Dynamics measured by neutron scattering correlates with the organization of bioenergetics complexes in natural membranes from hyperthermophile and mesophile bacteria
European Physical Journal E **36**, 78-1-78-7 (2013)

Peters J., Kneller G.R. Motional heterogeneity in human acetylcholinesterase revealed by a non-Gaussian model for elastic incoherent neutron scattering
Journal of Chemical Physics **139**, 165102-1-165102-5 (2013)

Rivasseau C., Farhi E., Atteia A., Couté A., Gromova M., de Gouvion Saint Cyr D., Boisson A.M., Féret A.S., Compagnon E., Bligny R. An extremely radioresistant green eukaryote for radionuclide bio-decontamination in the nuclear industry
Energy & Environmental Science **6**, 1230-1239 (2013)

Rusevich L., García Sakai V., Franzetti B., Johnson M., Natali F., Pellegrini E., Peters J., Pieper J., Weik M., Zaccai G. Perspectives in biological physics: The nDDB project for a neutron Dynamics Data Bank for biological macromolecules
European Physical Journal E **36**, 80-1-80-9 (2013)

Russo D., González M.A., Pellegrini E., Combet J., Ollivier J., Teixeira J. Evidence of dynamical constraints imposed by water organization around a bio-hydrophobic interface
Journal of Physical Chemistry B **117**, 2829-2836 (2013)



Russo D., Ortore M., Spinozzi F., Mariani P., Loupiac C., Annighöfer B., Paciaroni A. The impact of high hydrostatic pressure on structure and dynamics of β -lactoglobulin *Biochimica et Biophysica Acta* **1830**, 4974-4980 (2013)

Schiró G., Fomina M., Cupane A. Communication: Protein dynamical transition vs. liquid-liquid phase transition in protein hydration water *Journal of Chemical Physics* **139**, 121102-1-121102-3 (2013)

Sebastiani F., Orecchini A., Paciaroni A., Jasnin M., Zaccai G., Moulin M., Haertlein M., De Francesco A., Petrillo C., Sacchetti F. Collective THz dynamics in living *Escherichia coli* cells *Chemical Physics* **424**, 84-88 (2013)

Stadler A.M., Monkenbusch M., Biehl R., Richter D., Ollivier J. Neutron spin-echo and TOF reveals protein dynamics in solution *Journal of the Physical Society of Japan* **82**, SA016-1-SA016-8 (2013)

Stadler A.M., Unruh T., Namba K., Samatey F.A., Zaccai G. Correlation between supercoiling and conformational motions of the bacterial flagellar filament *Biophysical Journal* **105**, 2157-2165 (2013)

Svergun D.I., Koch M.H.J., Timmins P.A., May R.P. Experimental practice and data processing In "Small Angle X-Ray and Neutron Scattering from Solutions of Biological Macromolecules" Svergun D.I. *et al.* Eds. (2013, Oxford University Press) pp. 65-89

Svergun D.I., Koch M.H.J., Timmins P.A., May R.P. Kinetic and perturbation studies In "Small Angle X-Ray and Neutron Scattering from Solutions of Biological Macromolecules" Svergun D.I. *et al.* Eds. (2013, Oxford University Press) pp. 220-258

Svergun D.I., Koch M.H.J., Timmins P.A., May R.P. Monodisperse systems In "Small Angle X-Ray and Neutron Scattering from Solutions of Biological Macromolecules" Svergun D.I. *et al.* Eds. (2013, Oxford University Press) pp. 93-151

Svergun D.I., Koch M.H.J., Timmins P.A., May R.P. Static structural studies In "Small Angle X-Ray and Neutron Scattering from Solutions of Biological Macromolecules" Svergun D.I. *et al.* Eds. (2013, Oxford University Press) pp. 171-219

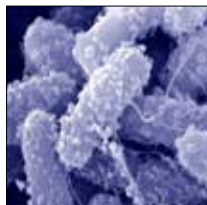
Svergun D.I., Koch M.H.J., Timmins P.A., May R.P. X-ray and neutron scattering instruments In "Small Angle X-Ray and Neutron Scattering from Solutions of Biological Macromolecules" Svergun D.I. *et al.* Eds. (2013, Oxford University Press) pp. 27-64

Szalontai B., Nagy G., Krumova S., Fodor E., Pali T., Taneva S.G., Garab G., Peters J., Dér A. Hofmeister ions control protein dynamics *Biochimica et Biophysica Acta* **1830**, 4564-4572 (2013)

Telling M.T.F., García Sakai V., Combet J., Howells W.S., Clifton L.A. Mean squared displacement analysis of an-harmonic behaviour in lyophilised proteins *Chemical Physics* **424**, 32-36 (2013)

Thomas L.H., Forsyth V.T., Sturcová A., Kennedy C.J., May R.P., Altaner C.M., Apperley D.C., Wess T.J., Jarvis M.C. Structure of cellulose microfibrils in primary cell walls from collenchyma ¹³C NMR *Plant Physiology* **161**, 465-476 (2013)

Trovaslet M., Trapp M., Weik M., Nachon F., Masson P., Tehei M., Peters J. Relation between dynamics, activity and thermal stability within the cholinesterase family *Chemico-Biological Interactions* **203**, 14-18 (2013)

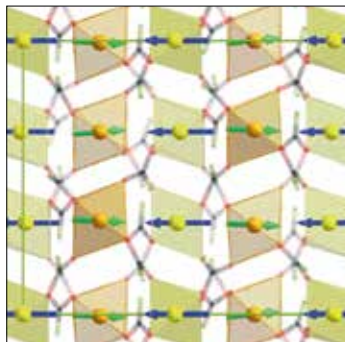


Vitiello G., Fragneto G., Petruk A., Falanga A., Galdiero S., D'Ursi A., Merlino A., D'Errico G. Cholesterol modulates the fusogenic activity of a membranotropic domain of the FIV glycoprotein gp36 *Soft Matter* **9**, 6442-6456 (2013)

Weber I.T., Waltman M.J., Mustyakimov M., Blakeley M.P., Keen D.A., Ghosh A.K., Langan P., Kovalevsky A.Y. Joint X-ray/neutron crystallographic study of HIV-1 protease with clinical inhibitor amprenavir: Insights for drug design *Journal of Medicinal Chemistry* **56**, 5631-5635 (2013)

Zaccai G. Hydration shells with a pinch of salt *Biopolymers* **99**, 233-238 (2013)

Wood K., Gallat F.X., Otten R., van Heel A.J., Lethier M., van Eijck L., Moulin M., Haertlein M., Weik M., Mulder F.A.A. Protein surface and core dynamics show concerted hydration-dependent activation *Angewandte Chemie International Edition* **52**, 665-668 (2013)



Abbas M.A., Grant D.M., Brunelli M., Hansen T.C., Walker G.S. Reducing the dehydrogenation temperature of lithium hydride through alloying with germanium
Physical Chemistry Chemical Physics **15**, 12139-12146 (2013)

Alonso J.A., Martínez-Lope M. J., Presniakov I. A., Sobolev A.V., Rusakov V.S., Gapochka A. M., Demazeau G., Fernández-Díaz M.T. Charge disproportionation in $RNiO_3$ ($R = Tm, Yb$) perovskites observed *in situ* by neutron diffraction and ^{57}Fe probe Mössbauer spectroscopy
Physical Review B **87**, 184111-1-184111-12 (2013)

Atkins R., Disch S., Jones Z., Haeusler I., Grosse C., Fischer S.F., Neumann W., Zschack P., Johnson D.C. Synthesis, structure and electrical properties of a new tin vanadium selenide
Journal of Solid State Chemistry **202**, 128-133 (2013)

Barpanda P., Rouse G., Ye T., Ling C.D., Mohamed Z., Klein Y., Yamada A. Neutron diffraction study of the Li-ion battery cathode $Li_2FeP_2O_7$
Inorganic Chemistry **52**, 3334-3341 (2013)

Bessière A., Lecointre A., Aït Benhamou R., Suard E., Wallez G., Viana B. How to induce red persistent luminescence in biocompatible $Ca_3(PO_4)_2$
Journal of Materials Chemistry C **1**, 1252-1259 (2013)

Bianchini M., Leriche J.B., Laborier J.L., Gendrin L., Suard E., Croguennec L., Masquelier C. A new null matrix electrochemical cell for rietveld refinements of *in situ* or operando neutron powder diffraction data
Journal of the Electrochemical Society **160**, A2176-A2183 (2013)

Broux T., Bahout M., Hernandez O., Tonus F., Paofai S., Hansen T., Greaves C. Reduction of Sr_2MnO_4 investigated by high temperature *in situ* neutron powder diffraction under hydrogen flow
Inorganic Chemistry **52**, 1009-1017 (2013)

Broux T., Prestipino C., Bahout M., Hernandez O., Swain D., Paofai S., Hansen T.C., Greaves C. Unprecedented high solubility of oxygen interstitial defects in $La_{1.2}Sr_{0.8}MnO_{4+\delta}$ up to $\delta \sim 0.42$ revealed by *in situ* high temperature neutron powder diffraction in flowing O_2
Chemistry of Materials **25**, 4053-4063 (2013)

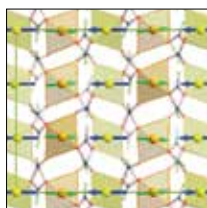
Caignoert V., Maignan A., Singh K., Simon C., Pralong V., Raveau B., Mitchell J.F., Zheng H., Huq A., Chapon L.C. Gigantic magnetic-field-induced polarization and magnetoelectric coupling in a ferrimagnetic oxide $CaBaCo_4O_7$
Physical Review B **88**, 174403-1-174403-5 (2013)

apelli S.C., Falvello L.R., Forcén-Vázquez E., McIntyre G.J., Palacio F., Sanz S., Tomás M. Proton cascade in a molecular solid: H/D exchange on mobile and immobile water
Angewandte Chemie International Edition **52**, 13463-13467 (2013)

Coduri M., Scavini M., Allieta M., Brunelli M., Ferrero C. Defect structure of Y-doped ceria on different length scales
Chemistry of Materials **25**, 4278-4289 (2013)

Dunstan M.T., Blanc F., Avdeev M., McIntyre G.J., Grey C.P., Ling C.D. Long-range-ordered coexistence of 4-, 5-, and 6-coordinate niobium in the mixed ionic-electronic conductor γ - $Ba_4Nb_2O_9$
Chemistry of Materials **25**, 3154-3161 (2013)

Fabelo O., Cañadillas-Delgado L., Pasán J., Díaz-Gallifa P., Ruiz-Pérez C., Lloret F., Julve M., Puente Orench I., Campo J., Rodríguez-Carvajal J. Neutron diffraction studies of the molecular compound $[Co_2(bta)]_n(H_4bta = 1,2,4,5\text{-benzenetetra-carboxylic acid})$: In the quest of canted ferromagnetism
Inorganic Chemistry **52**, 12818-12827 (2013)



Falenty A., Murshed M.M., Salamatin A.N., Kuhs W.F. Gas replacement in clathrate hydrates during CO_2 injection - Kinetics and micro-structural mechanism
In "Proceedings of the Tenth (2013) ISOPE Ocean Mining and Gas Hydrates Symposium" (2013, ISOPE) pp. 109-115

Falenty A., Salamatin A.N., Kuhs W.F. Kinetics of CO_2 -hydrate formation from ice powders: Data summary and modeling extended to low temperatures
Journal of Physical Chemistry C **117**, 8443-8457 (2013)

Farrell A.R., Coome J.A., Probert M.R., Goeta A.E., Howard J.A.K., Lemée-Cailleau M.H., Parsons S., Murrie M. Ultra-low temperature structure determination of a Mn_{12} single-molecule magnet and the interplay between lattice solvent and structural disorder
CrystEngComm **15**, 3423-3429 (2013)

Fernández-Díaz M.T., Lemée-Cailleau M.H. Max von Laue - Hundred years of crystal diffraction
Neutron News **24**, 11-12 (2013)

Ford S.J., McIntyre G.J., Johnson M.R., Radosavljevic E.I. Structure and dynamics studies of the short strong hydrogen bond in the 3,5-dinitrobenzoic acid–nicotinic acid molecular complex
CrystEngComm **15**, 7576-7582 (2013)

Foury-Leylekian P., Petit S., Mirebeau I., André G., de Souza M., Lang M., Ressouche E., Moradpour A., Pouget J.P. Low-temperature structural effects in the $(\text{TMTSF})_2\text{PF}_6$ and AsF_6 Bechgaard salts
Physical Review B **88**, 024105-1-024105-15 (2013)

Franco D.G., Carbonio R.E., Nieva G. Synthesis and structural and magnetic characterization of the frustrated magnetic system $\text{La}_2\text{Ni}_{4/3-x}\text{Co}_x\text{Sb}_{2/3}\text{O}_6$
Journal of Solid State Chemistry **207**, 69-79 (2013)

Gallois-Montbrun D., Le Bas G., Mason S.A., Prangé T., Lesieur S. A highly hydrated α -cyclodextrin/1-undecanol inclusion complex: Crystal structure and hydrogen-bond network from high-resolution neutron diffraction at 20 K
Acta Crystallographica B **69**, 214-227 (2013)

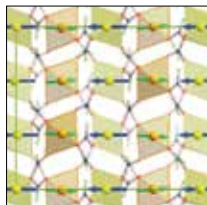
Galven C., Suard E., Mounier D., Crosnier-Lopez M.P., Le Berre F. Structural characterization of a new acentric protonated garnet: $\text{Li}_{6-x}\text{H}_x\text{CaLa}_2\text{Nb}_2\text{O}_{12}$
Journal of Materials Research **28**, 2147-2153 (2013)

Gatta G.D., Néneret G., Vignola P. Coexisting hydroxyl groups and H_2O molecules in minerals: A single-crystal neutron diffraction study of eosphorite, $\text{MnAlPO}_4(\text{OH})_2 \cdot \text{H}_2\text{O}$
American Mineralogist **98**, 1297-1301 (2013)

Gesing T.M., Mendive C.B., Curti M., Hansmann D., Néneret G., Kalita P.E., Lipinska K.E., Huq A., Cornelius A.L., Murshed M.M. Structural properties of mullite-type $\text{Pb}(\text{Al}_{1-x}\text{Mn}_x)\text{BO}_4$
Zeitschrift für Kristallographie **228**, 532-543 (2013)

Gilles R., Siouris I.M., Kockelmann W., Visser D., Katsavounis S., Walter J.M., Hoelzel M., Brunelli M. Determination of phase compositions in ceramics from Gobi desert using complementary diffraction techniques
Journal of Radioanalytical and Nuclear Chemistry **298**, 133-145 (2013)

González-Silgo C., Guzmán-Afonso C., Sánchez-Fajardo V.M., Acosta-Gutiérrez S., Sánchez-Soares A., Torres M.E., Sabalisk N., Matesanz E., Rodríguez-Carvajal J. Polymorphism in $\text{Ho}_2(\text{MoO}_4)_3$
Powder Diffraction **28**, S33-S40 (2013)



Grellier M., Mason S.A., Albinati A., Capelli S.C., Rizzato S., Bijani C., Coppel Y., Sabo-Etienne S. Probing highly selective H/D exchange processes with a ruthenium complex through neutron diffraction and multinuclear NMR studies

Inorganic Chemistry **52**, 7329-7337 (2013)

Gunanathan C., Capelli S.C., Englert U., Holscher M., Leitner W. Structures and dynamics of the mixed dihydrogen/hydride complexes $[Ru(PCP)(H)(H_2)_n]$ ($n = 1, 2$) and $[Ru(PNP)(H)_2(H_2)]$

European Journal of Inorganic Chemistry **2013**, 5075-5080 (2013)

Harunsani M.H., Woodward D.I., Peel M.D., Ashbrook S.E., Walton R.I. Investigation of the hydrothermal crystallisation of the perovskite solid solution $NaCe_{1-x}La_xTi_2O_6$ and its defect chemistry

Journal of Solid State Chemistry **207**, 117-125 (2013)

Hernandez-Suarez A., Guzman-Afonso C., López-Solano J., Gonzalez-Silgo C., Torres M.E., Sabalick N., Matesanz E., Rodríguez-Carvajal J. Ferroic phase transition in $LaEr(MoO_4)_3$

Powder Diffraction **28**, S86-S93 (2013)

Hernando M., Miranda L., Varela A., Boulahya K., Lazar S., Sinclair D.C., González-Calbet J.M., Parras M. Direct atomic observation in powdered $4H-Ba_{0.8}Sr_{0.2}Mn_{0.4}Fe_{0.6}O_{2.7}$

Chemistry of Materials **25**, 548-554 (2013)

Iturbe-Zabalo E., Igartua J.M., Gateshki M. Symmetry-mode analysis of the phase transitions in $SrLaZnRuO_6$ and $SrLaMgRuO_6$ ordered double perovskites

Journal of Applied Crystallography **46**, 1085-1093 (2013)

Johnson R.D., Barone P., Bombardi A., Bean R.J., Picozzi S., Radaelli P.G., Oh Y.S., Cheong S.W., Chapon L.C. X-ray imaging and multiferroic coupling of cycloidal magnetic domains in ferroelectric monodomain $BiFeO_3$

Physical Review Letters **110**, 217206-1-217206-5 (2013)

Johnson R.D., Cao K., Chapon L.C., Fabrizi F., Perks N., Manuel P., Yang J.J., Oh Y.S., Cheong S.W., Radaelli P.G. $MnSb_2O_6$: A polar magnet with a chiral crystal structure

Physical Review Letters **111**, 017202-1-017202-5 (2013)

Jordá J.L., Rey F., Sastre G., Valencia S., Palomino M., Corma A., Segura A., Errandonea D., Lacombe R., Manjón F.J., Gomis O., Kleppe A.K., Jephcoat A.P., Amboage M., Rodríguez-Velamazán J.A. Synthesis of a novel zeolite through a pressure-induced reconstructive phase transition process

Angewandte Chemie **125**, 10652-10656 (2013)

Kanaki K., Jackson A., Hall-Wilton R., Piscitelli F., Kirstein O., Andersen K.H. A novel small-angle neutron scattering detector geometry

Journal of Applied Crystallography **46**, 1031-1037 (2013)

Kandemir T., Girgsdies F., Hansen T.C., Liss D.K., Kasatkin I., Kunkes E.L., Wowsnick G., Jacobsen N., Schlögl R., Behrens M. In-situ-Untersuchung von katalytischen Prozessen bei industriell relevanten Drücken: Neutronenbeugung an einem Methanolsynthesekatalysator

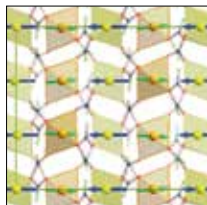
Angewandte Chemie **125**, 5271-5276 (2013)

Kandemir T., Girgsdies F., Hansen T.C., Liss K.D., Kasatkin I., Kunkes E.L., Wowsnick G., Jacobsen N., Schlögl R., Behrens M. In situ study of catalytic processes: Neutron diffraction of a methanol synthesis catalyst at industrially relevant pressure

Angewandte Chemie International Edition **52**, 5166-5170 (2013)

Karbovnyk I., Lesivtsiv V., Bolesta I., Velgosh S., Rovetsky I., Pankratov V., Balasubramanian C., Popov A.I. BiI_3 nanoclusters in melt-grown CdI_2 crystals studied by optical absorption spectroscopy

Physica B **413**, 12-14 (2013)



Kayser P., Martínez-Lope M.J., Alonso J.A., Retuerto M., Croft M., Ignatov A., Fernández-Díaz M.T. Crystal structure, phase transitions, and magnetic properties of iridium perovskites Sr_2MIrO_6 ($M = \text{Ni}, \text{Zn}$)

Inorganic Chemistry **52**, 11013-11022 (2013)

Klotz S., Strässle T., Hansen T.C. Pressure dependence of Morin transition in $\alpha\text{-Fe}_2\text{O}_3$ hematite *Europhysics Letters* **104**, 16001-p1-16001-p5 (2013)

Kohlmann H., Kurtzemann N., Hansen T.C. Metal hydride formation in palladium and palladium rich intermetallic compounds studied by *in situ* neutron diffraction

Powder Diffraction **28**, S242-S255 (2013)

Kojda D., Wallacher D., Bedoin S., Hansen T.C., Huber P., Hofmann T. Solid phases of spatially nanoconfined oxygen: A neutron scattering study

Journal of Chemical Physics Submitted (2013)

Kuhs W.F., Sippel C., Falenty A., Hansen T.C. Reply to Bogdan *et al.*: "Cubic ice" in cirrus clouds under dry and wet conditions

Proceedings of the National Academy of Sciences **110**, E2440 (2013)

Lago A.B., Carballo R., Fabelo O., Fernández-Hermida N., Lloret F., Vázquez-López E.M. Metallo-supramolecular compounds based on $\text{Cu}_{(II)}$ /oxalate/twisted NSSN ligands showing a new *in situ* S-C bond cleavage

CrystEngComm **15**, 10550-10562 (2013)

Le Bail A., Hansen T.C., Crichton W.A. Tetrapotassium pyrophosphates γ - and δ - $\text{K}_4\text{P}_2\text{O}_7$

Powder Diffraction **28**, 2-12 (2013)

Lee N., Vecchini C., Choi Y.J., Chapon L.C., Bombardi A., Radaelli P.G., Cheong S.W. Giant tunability of ferroelectric polarization in GdMn_2O_5

Physical Review Letters **110**, 137203-1-137203-4 (2013)

Lee S., Fernández-Díaz M.T., Kimura H., Noda Y., Adroja D.T., Park J.M., Kiryukhin V., Cheong S.W., Mostovoy M., Park J.G. Negative magnetostrictive magnetoelectric coupling of BiFeO_3

Physical Review B **88**, 060103-1-060103-5 (2013)

Legrand V., Merdignac-Conanec O., Paulus W. Nano-scaled $\text{TiO}(\text{OD})_2$: A time resolved $^1\text{H}/^2\text{D}$ isotope exchange study observed *in situ* with neutron scattering at 20 °C and 40 °C

Dalton Transactions **42**, 3896-3900 (2013)

Legrand V., Pechev S., Létard J.F., Guionneau P. Synergy between polymorphism, pressure, spin-crossover and temperature in $[\text{Fe}(\text{PM-BiA})_2(\text{NCS})_2]$: A neutron powder diffraction investigation

Physical Chemistry Chemical Physics **15**, 13872-13880 (2013)

Lemmel H. Influence of Bragg diffraction on perfect crystal neutron phase shifters and the exact solution of the two-beam case in the dynamical diffraction theory

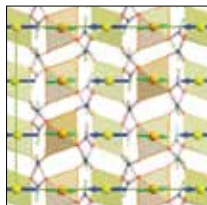
Acta Crystallographica A **69**, 459-474 (2013)

Lemoine P., Tobola J., Vernière A., Malaman B. Crystal and electronic structures of the new quaternary $R\text{Cr}_3\text{Si}_2\text{C}$ ($R = \text{Y}, \text{Gd-Tm}, \text{Lu}, \text{U}$) compounds

Journal of Solid State Chemistry **201**, 293-301 (2013)

Ling C.D., Schmid S., Blanchard P.E.R., Petříček V., McIntyre G.J., Sharma N., Maljuk A., Yaremchenko A.A., Kharton V.V., Gutmann M., Withers R.L. A (3 + 3)-dimensional "Hypercubic" oxide-ionic conductor: Type II $\text{Bi}_2\text{O}_3\text{-Nb}_2\text{O}_5$

Journal of the American Chemical Society **135**, 6477-6484 (2013)



López C.A., Saleta M.E., Pedregosa J.C., Sánchez R.D., Alonso J.A., Fernández-Díaz M.T. Cationic disorder and Mn³⁺/Mn⁴⁺ charge ordering in the B' and B'' sites of Ca₃Mn₂NbO₉ perovskite: A comparison with Ca₃Mn₂WO₉

Journal of Solid State Chemistry **210**, 1-9 (2013)

Luo K., Hayward M.A. The synthesis and characterisation of LaCa₂Fe₂GaO₈

Journal of Solid State Chemistry **198**, 203-209 (2013)

Luo K., Johnson R.D., Tran T.T., Halasyamani P.S., Radaelli P.G., Hayward M.A. Ba₂YFeO_{5.5}: A ferromagnetic pyroelectric phase prepared by topochemical oxidation

Chemistry of Materials **25**, 1800-1808 (2013)

Marshall L.G., Zhou J., Zhang J., Han J., Vogel S.C., Yu X., Zhao Y., Fernández-Díaz M.T., Cheng J., Goodenough J.B. Unusual structural evolution in KCuF₃ at high temperatures by neutron powder diffraction

Physical Review B **87**, 014109-1-014109-5 (2013)

Martinelli A., Palenzona A., Pallecchi I., Ferdeghini C., Putti M., Sanna S., Curfs C., Ritter C. Structural properties and phase diagram of the La(Fe_{1-x}Ru_x)AsO system

Journal of Physics: Condensed Matter **25**, 395701-1-395701-12 (2013)

Martínez-Coronado R., Agüero A., Alonso J.A., Fernández-Díaz M.T. Reversible oxygen removal and uptake in the La₂ZnMnO₆ double perovskite: Performance in symmetrical SOFC cells

Solid State Sciences **18**, 64-70 (2013)

Martínez-Coronado R., Alonso J.A., Agüero A., Pérez-Coll D., Fernández-Díaz M.T.

Neutron structural characterization and transport properties of oxidized and reduced La_{0.5}Sr_{0.5}M_{0.5}Ti_{0.5}O₃ (M=Mn, Fe) perovskites: Possible electrode materials in solid-oxide fuel cells

Journal of Applied Physics **113**, 123708-1-123708-7 (2013)

Martínez-Coronado R., Alonso J.A., Fernández M.T. Synthesis and characterization of R₂MnTiO₇ (R=Y and Er) pyrochlores oxides

Materials Research Bulletin **48**, 3304-3309 (2013)

Martínez-Coronado R., Retuerto M., Torres B., Martínez-Lope M.J., Fernández-Díaz M.T., Alonso J.A. High-pressure synthesis, crystal structure and cyclability of the Mg₂NiH₄ hydride

International Journal of Hydrogen Energy **38**, 5738-5745 (2013)

McIntyre G.J., Smirnov L.S., Baranov A.I., Dolbinina V.V., Frontasyeva M.V., Pavlov S.S., Pankratova Y.S. Modulated crystal structures of phases VII and V in (NH₄)₃H(SO₄)₂.

Neutron Laue diffraction

Crystallography Reports **58**, 78-80 (2013)

Mileeva Z., Ross D.K., King S.M. A study of the porosity of nuclear graphite using small-angle neutron scattering

Carbon **64**, 20-26 (2013)

Mishra S.K., Mittal R., Chaplot S.L., Hansen T.C. Pressure induced phase transition in NaNbO₃

AIP Conference Proceedings **1512**, 50-51 (2013)

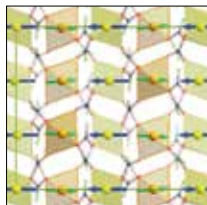
Nava-Avendano J., Frontera C., Ayllon J.A., Oró-Solé J., Senguttuvan P., Palacín M.R.

Synthesis and characterization of a novel sodium transition metal oxyfluoride: NaMnMoO₃F₃·H₂O

Inorganic Chemistry **52**, 9791-9797 (2013)

Negrier P., Tamarit J.L., Barrio M., Mondieig D. Polymorphism in halogen-ethane derivatives: CCl₃-CCl₃ and ClF₂C-CF₂Cl

Crystal Growth & Design **13**, 782-791 (2013)



Neri I., Camattari R., Bellucci V., Guidi V., Bastie P. Ordered stacking of crystals with adjustable curvatures for hard X- and γ -ray broadband focusing
Journal of Applied Crystallography **46**, 953-959 (2013)

Oka K., Mizumaki M., Sakaguchi C., Sinclair A., Ritter C., Atfield J.P., Azuma M. Intermetallic charge-transfer transition in $\text{Bi}_{1-x}\text{La}_x\text{NiO}_3$ as the origin of the colossal negative thermal expansion
Physical Review B **88**, 014412-1-014412-6 (2013)

Pallier C., Leysalle J.M., Truffandier L.A., Bui A.T., Weisbecker P., Gervais C., Fischer H.E., Sirotti F., Teyssandier F., Chollon G. Structure of an amorphous boron carbide film: An experimental and computational approach
Chemistry of Materials **25**, 2618-2629 (2013)

Payne J.L., Farrell J.D., Linsell A.M., Johnson M.R., Evans I.R. The mechanism of oxide ion conductivity in bismuth rhenium oxide, $\text{Bi}_{28}\text{Re}_2\text{O}_{49}$
Solid State Ionics **244**, 35-39 (2013)

Piegsa F.M., Karlsson M., van den Brandt B., Carlile C.J., Forgan E.M., Hautle P., Konter J.A., McIntyre G.J., Zimmer O. Polarized neutron Laue diffraction on a crystal containing dynamically polarized proton spins
Journal of Applied Crystallography **46**, 30-34 (2013)

Popov A.I., Shirmane L., Pankratov V., Lushchik A., Kotlov A., Serga V.E., Kulikova L.D., Chikvaidze G., Zimmermann J. Comparative study of the luminescence properties of macro- and nanocrystalline MgO using synchrotron radiation
Nuclear Instruments and Methods in Physics Research B **310**, 23-26 (2013)

Reynolds E., Blanchard P.E.R., Kennedy B.J., Ling C.D., Liu S., Avdeev M., Zhang Z., Cuello G.J., Tadich A., Jang L.Y. Anion disorder in lanthanoid zirconates $\text{Gd}_{2-x}\text{Tb}_x\text{Zr}_2\text{O}_7$
Inorganic Chemistry **52**, 8409-8415 (2013)

Romero F.D., Bingham P.A., Forder S.D., Hayward M.A. Topochemical fluorination of $\text{Sr}_3(\text{M}_{0.5}\text{Ru}_{0.5})_2\text{O}_7$ ($\text{M} = \text{Ti}, \text{Mn}, \text{Fe}$), $n = 2$, ruddlesden-popper phases
Inorganic Chemistry **52**, 3388-3398 (2013)

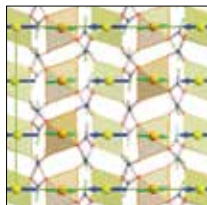
Romero F.D., Burr S.J., McGrady J.E., Gianolio D., Cibir G., Hayward M.A. $\text{SrFe}_{0.5}\text{Ru}_{0.5}\text{O}_2$: Square-planar Ru^{2+} in an extended oxide
Journal of the American Chemical Society **135**, 1838-1844 (2013)

Romero F.D., Gianolio D., Cibir G., Bingham P.A., d'Hollander J.C., Forder S.D., Hayward M.A. Topochemical reduction of the ruddlesden-popper phases $\text{Sr}_2\text{Fe}_{0.5}\text{Ru}_{0.5}\text{O}_4$ and $\text{Sr}_3(\text{Fe}_{0.5}\text{Ru}_{0.5})_2\text{O}_7$
Inorganic Chemistry **52**, 10920-10928 (2013)

Senguttuvan P., Rousse G., Oró-Solé J., Tarascon J.M., Palacín M.R. A low temperature TiP_2O_7 polymorph exhibiting reversible insertion of lithium and sodium ions
Journal of Materials Chemistry A **1**, 15284-15291 (2013)

Serena S., Caballero A., Sainz M.A. Analysis of the polymorphic transformation of nano- and microcrystalline zirconia doped with CaO and MgO during reaction-sintering process by neutron thermodiffraction. A thermodynamic approach
Journal of the European Ceramic Society **33**, 1413-1424 (2013)

Smart K.A., Grellier M., Vendier L., Mason S.A., Capelli S.C., Albinati A., Sabo-Etienne S. Step-by-step introduction of silazane moieties at ruthenium: Different extents of Ru-H-Si bond activation
Inorganic Chemistry **52**, 2654-2661 (2013)



Smart P., Mason C.A., Loader J.R., Meijer A.J.H.M., Florence A.J., Shankland K., Fletcher A.J., Thompson S.P., Brunelli M., Hill A.H., Brammer L. Zipping and unzipping of a paddlewheel meta-organic framework to enable two-step synthetic and structural transformation
Chemistry - A European Journal **19**, 3552-3557 (2013)

Smidman M., Adroja D.T., Hillier A.D., Chapon L.C., Taylor J.W., Anand V.K., Singh R.P., Lees M.R., Goremychkin E.A., Koza M.M., Krishnamurthy V.V., Paul D.M., Balakrishnan G. Neutron scattering and muon spin relaxation measurements of the noncentrosymmetric antiferromagnet CeCoGe₃
Physical Review B **88**, 134416-1-134416-10 (2013)

Subban C.V., Ati M., Rouse G., Abakumov A.M., Van Tendeloo G., Janot R., Tarascon J.M. Preparation, structure, and electrochemistry of layered polyanionic hydroxysulfates: LiMSO₄OH (M = Fe, Co, Mn) electrodes for Li-ion batteries
Journal of the American Chemical Society **135**, 3653-3661 (2013)

Sun C., Brewer A., Clarke S.M., Bhide T., Parker J.E. Adsorption of iodoalkanes on graphite
Molecular Physics **111**, 1005-1014 (2013)

Szafranski M. Strong negative thermal expansion and relaxor ferroelectricity driven by supramolecular patterns
Journal of Materials Chemistry C **1**, 7904-7913 (2013)

Tabacaru C., Aguadero A., Sanz J., Chinelatto A.L., Thursfield A., Pérez-Coll D., Metcalfe I.S., Fernández-Díaz M.T., Mather G.C. Protonic and electronic defects in the 12R-type hexagonal perovskite Sr₃LaNb₃O₁₂
Solid State Ionics **253**, 239-246 (2013)

Torres B., Martínez-Lope M.J., Alonso J.A., Serafini D., Fernández-Díaz M.T., Martínez-Coronado R. Short communication: High-pressure synthesis and crystal structure of a novel Mg₃CuH_x ternary hydride
International Journal of Hydrogen Energy **38**, 15264-15268 (2013)

Torre-Fernández L., Trobajo C., de Pedro I., Alfonso B.F., Fabelo O., Blanco J.A., García J.R., García-Granda S. Ammonium-cobalt-nickel phosphates, NH₄[Co_{1-x}Ni_xPO₄].H₂O
Journal of Solid State Chemistry **206**, 75-84 (2013)

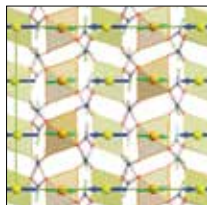
Troncoso L., Martínez-Lope M.J., Alonso J.A., Fernández-Díaz M.T. Evaluation of Sr₂MWMoO₆ (M=Mg, Mn) as anode materials in solid-oxide fuel cells: A neutron diffraction study
Journal of Applied Physics **113**, 023511-1-023511-8 (2013)

Trots D.M., Kurnosov A., Manthilake M.A.G.M., Ovsyannikov S.V., Akselrud L.G., Hansen T.C., Smyth J.R., Frost D.J. The determination of hydrogen positions in superhydrous phase B
American Mineralogist **98**, 1688-1692 (2013)

Véron E., Garaga M.N., Pelloquin D., Cadars S., Suchomel M., Suard E., Massiot D., Montouillout V., Matzen G., Allix M. Synthesis and structure determination of CaSi_{1/3}B_{2/3}O_{8/3}: A new calcium borosilicate
Inorganic Chemistry **52**, 4250-4258 (2013)

Visinescu D., Toma L.M., Fabelo O., Ruiz-Pérez C., Lloret F., Julve M. Low-dimensional 3d-4f complexes assembled by low-spin [Fe^{III}(phen)(CN)₄]⁻ anions
Inorganic Chemistry **52**, 1525-1537 (2013)

Wang H., Wesolowski D.J., Proffen T.E., Vlcek L., Wang W., Allard L.F., Kolesnikov A.I., Feygenson M., Anovitz L.M., Paul R.L. Structure and stability of SnO₂ nanocrystals and surface-bound water species
Journal of the American Chemical Society **135**, 6885-6895 (2013)



Wenderoth P., Kohlmann H. In situ neutron powder diffraction of the formation of SrGa_2D_2 , and hydrogenation behavior of YbGa_2 and EuGa_2
Inorganic Chemistry **52**, 10525-10531 (2013)

Widenmeyer M., Niewa R., Hansen T.C., Kohlmann H. *In situ* neutron diffraction as a probe on formation and decomposition of nitrides and hydrides: A case study
Zeitschrift für Anorganische und Allgemeine Chemie **639**, 285-295 (2013)

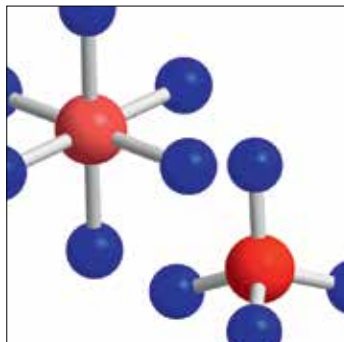
Yip T.W.S., Cussen E.J. Ion exchange and structural aging in the layered perovskite phases $\text{H}_{1-x}\text{Li}_x\text{LaTiO}_4$
Inorganic Chemistry **52**, 6985-6993 (2013)

Fitch A., Curfs C. Ultrafast powder diffraction
In "Uniting Electron Crystallography and Powder Diffraction" Kolb U. *et al.* Eds. (2012, Springer Science +Business Media, LLC) pp. 83-93

Takeshi E., Billinge S.J.L. Defects in crystals and crystallographically challenged materials **16**, 371-405 (2012)
In "Underneath the Bragg Peaks Structural Analysis of Complex Materials" Takeshi E. *et al.* Eds. (2012, Elsevier) pp. 371-405

Young O., Chapon L.C., Petrenko O.A. Low temperature magnetic structure of geometrically frustrated SrHo_2O_4
Journal of Physics : Conference Series **391**, 012081-1-012081-4 (2012)

LIQUIDS AND GLASSES



Aoun B., González M.A., Russina M., Price D.L., Saboungi M.L. Dynamics of butyl- and hexyl-methylimidazolium bromide ionic liquids
Journal of the Physical Society of Japan **82**, SA002-1-SA002-9 (2013)

Artola P.A., Raihane A., Crauste-Thibierge C., Merlet D., Emo M., Alba-Simionesco C., Rousseau B. Limit of miscibility and nanophase separation in associated mixtures
Journal of Physical Chemistry B **117**, 9718-9727 (2013)

Azuah R.T., Diallo S.O., Adams M.A., Kirichek O., Glyde H.R. Phonon-rotor modes of liquid ^4He beyond the roton in the porous medium MCM-41
Physical Review B **88**, 024510-1-024510-8 (2013)

Bove L.E., Klotz S., Strässle T., Koza M., Teixeira J., Saitta A.M. Translational and rotational diffusion in water in the gigapascal range
Physical Review Letters **111**, 185901-1-185901-5 (2013)

Bychkov A., Cuello G.J., Kohara S., Benmore C.J., Price D.L., Bychkov E. Unraveling the atomic structure of Ge-rich sulfide glasses
Physical Chemistry Chemical Physics **15**, 8487-8494 (2013)

Calvo-Dahlborg M., Popel P.S., Kramer M.J., Besser M., Morris J.R., Dahlborg U. Superheat-dependent microstructure of molten Al-Si alloys of different compositions studied by small angle neutron scattering
Journal of Alloys and Compounds **550**, 9-22 (2013)

Cormier L., Cuello G.J. Structural investigation of glasses along the MgSiO_3 - CaSiO_3 join: Diffraction studies
Geochimica et Cosmochimica Acta **122**, 498-510 (2013)

Coulomb J.P., Demirdjian B., Ferry D., Trabelsi M. Thermodynamic and structural properties of water adsorbed film on MgO (100) ionic surface
Adsorption **19**, 861-867 (2013)

Dahlborg U., Kramer M.J., Besser M., Morris J.R., Calvo-Dahlborg M. Structure of molten Al and eutectic Al-Si alloy studied by neutron diffraction
Journal of Non-Crystalline Solids **361**, 63-69 (2013)

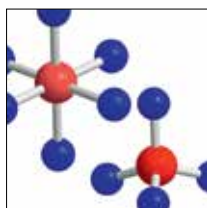
Drewitt J.W.E., Sanloup C., Bychkov A., Brassamin S., Hennet L. Structure of $(\text{Fe}_x\text{Ca}_{1-x}\text{O})_y(\text{SiO}_2)_{1-y}$ liquids and glasses from high-energy x-ray diffraction: Implications for the structure of natural basaltic magmas
Physical Review B **87**, 224201-1-224201-10 (2013)

Fourmentin M., Bychkov A., Le Coq D., Cuisset A., Milochova M., Kohara S., Usuki T., Benmore C.J., Bychkov E. Zero-dimensional cryogenic glasses and supercooled liquids in the Se-Cl system
AIP Conference Proceedings **1518**, 745-749 (2013)

Fratini E., Faraone A., Ridi F., Chen S.H., Baglioni P. Hydration water dynamics in tricalcium silicate pastes by time-resolved incoherent elastic neutron scattering
Journal of Physical Chemistry C **117**, 7358-7364 (2013)

Glyde H.R. Bose-Einstein condensation measurements and superflow in condensed helium
Journal of Low Temperature Physics **172**, 364-387 (2013)

Guarini E., Bafile U., Barocchi F., De Francesco A., Farhi E., Formisano F., Laloni A., Orecchini A., Polidori A., Puglini M., Sacchetti F. Dynamics of liquid Au from neutron Brillouin scattering and *ab initio* simulations: Analogies in the behavior of metallic and insulating liquids
Physical Review B **88**, 104201-1-104201-12 (2013)



Mason P.E., Neilson G.W., Price D.L., Saboungi M.L., Brady J.W. A new structural technique for examining ion-neutral association in aqueous solution
Faraday Discussions **160**, 161-170 (2013)

Mukharsky Y., Braslau A., Bossy J., Hansen T.C., Koza M.M. Static and dynamic structure factor in solid ^4He : Absence of a glassy phase
Europhysics Letters **101**, 26002-p1-26002-p2 (2013)

Paciaroni A., Orecchini A., Goracci G., Cornicchi E., Petrillo C., Sacchetti F. Glassy character of DNA hydration water
Journal of Physical Chemistry B **117**, 2026-2031 (2013)

Paineau E., Albouy P.A., Rouzière S., Orecchini A., Rols S., Launois P. X-ray scattering determination of the structure of water during carbon nanotube filling
Nano Letters **13**, 1751-1756 (2013)

Pluharova E., Mason P.E., Jungwirth P. Ion pairing in aqueous lithium salt solutions with monovalent and divalent counter-anions
Journal of Physical Chemistry A **117**, 11766-11773 (2013)

Pothoczki S., Temleitner L., Pardo L.C., Cuello G.J., Rovira-Esteva M., Tamarit J.L. Comparison of the atomic level structure of the plastic crystalline and liquid phases of CBr_2Cl_2 : Neutron diffraction and reverse Monte Carlo modelling
Journal of Physics: Condensed Matter **25**, 454216-1-454216-8 (2013)

Salmon P.S., Zeidler A. Identifying and characterising the different structural length scales in liquids and glasses: An experimental approach
Physical Chemistry Chemical Physics **15**, 15286-15308 (2013)

Sanloup C., Drewitt J.W.E., Crépinson C., Kono Y., Park C., McCammon C., Hennet L., Brassamin S., Bytchkov A. Structure and density of molten fayalite at high pressure
Geochimica et Cosmochimica Acta **118**, 118-128 (2013)

Seyed-Yazdi J., Dore J.C., Webber J.B.W., Farman H. Structural characterization of water and ice in mesoporous SBA-15 silicas IV: Partially filled cases for 86 Å pore diameter
Journal of Physics: Condensed Matter **25**, 465105-1-465105-13 (2013)

Skinner L.B., Barnes A.C., Salmon P.S., Hennet L., Fischer H.E., Benmore C.J., Kohara S., Weber J.K.R., Bytchkov A., Wilding M.C., Parise J.B., Farmer T.O., Pozdnyakova I., Tumber S.K., Ohara K. Joint diffraction and modeling approach to the structure of liquid alumina
Physical Review B **87**, 024201-1-024201-16 (2013)

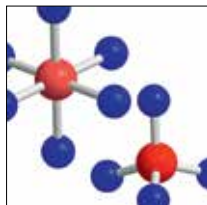
Smith J.M., Martin R.A., Cuello G.J., Newport R.J. Structural characterisation of hypoxia-mimicking bioactive glasses
Journal of Materials Chemistry B **1**, 1296-1303 (2013)

Vaney J.B., Delaizir G., Alleno E., Rouleau O., Piarristeguy A., Monnier J., Godart C., Ribes M., Escalier R., Pradel A., Goncalves A.P., Lopes E.B., Cuello G.J., Ziolkowski P., Müller E., Candolfi C., Dauscher A., Lenoir B. A comprehensive study of the crystallization of Cu-As-Te glasses: Microstructure and thermoelectric properties
Journal of Materials Chemistry A **1**, 8190-8200 (2013)

Bossy J., Ollivier J., Schober H., Glyde H.R. Excitations of amorphous solid helium
Physical Review B **86**, 224503-1-224503-10 (2012)

Bossy J., Ollivier J., Schober H., Glyde H.R. Phonon-roton modes in liquid ^4He coincide with Bose-Einstein condensation
EPL (Europhysics Letters) **98**, 56008-p1-56008-p6 (2012)

LIQUIDS AND GLASSES



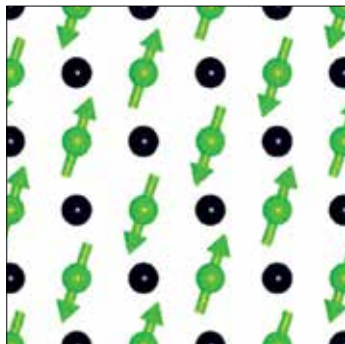
Wright A.C., Sinclair R.N., Shaw J.L., Haworth R., Marasinghe G.K., Day D.E., Bingham P.A., Forder S.D., Cuello G.J., Fischer H.E., Taylor J.W. The atomic and magnetic structure and dynamics of iron phosphate glasses

Physics and Chemistry of Glasses **53**, 227-244 (2012)

Yoshida K., Yamaguchi T., Kittaka S., Bellissent-Funel M.C., Fouquet P. Neutron spin echo measurements of monolayer and capillary condensed water in MCM-41 at low temperatures

Journal of Physics Condensed Matter **24**, 064101-1-064101-9 (2012)

MAGNETIC EXCITATIONS



Abakumov A.M., Erni R., Tsirlin A.A., Rossell M.D., Batuk D., Néneret G., Van Tendeloo G. Frustrated octahedral tilting distortion in the incommensurately modulated $\text{Li}_3\text{Nd}_{2/3-x}\text{TiO}_3$ perovskites

Chemistry of Materials **25**, 2670-2683 (2013)

Bessas D., Rushchanskii K.Z., Kachlik M., Disch S., Gourdon O., Bednarcik J., Maca K., Sergueev I., Kamba S., Lezaic M., Hermann R.P. Lattice instabilities in bulk EuTiO_3

Physical Review B **88**, 144308-1-144308-9 (2013)

Blanco J.A., Fåk B., Jensen J., Rotter M., Hiess A., Schmitt D., Lejay P. Phonons, amplitude modes, and spin waves in the amplitude-modulated magnetic phase of PrNi_2Si_2

Physical Review B **87**, 104411-1-104411-9 (2013)

Brown P.J., Kainuma R., Kanomata T., Neumann K.U., Okubo A., Umetsu R.Y., Ziebeck K.R.A. A polarized neutron study of the magnetization distribution in Co_2FeSi

Journal of Physics Condensed Matter **25**, 206002-1-206002-6 (2013)

Calder S., Giblin S.R., Parker D.R., Deen P.P., Ritter C., Stewart J.R., Rols S., Fennell T. Neutron scattering and μSR investigations of the low temperature state of LuCuGaO_4

Journal of Physics Condensed Matter **25**, 356002-1-356002-11 (2013)

Cañadillas-Delgado L., Pasán J., Fabelo O., Julve M., Lloret F., Ruiz-Pérez C. A step further in the comprehension of the magnetic coupling in gadolinium(III)-based carboxylate complexes

Polyhedron **52**, 321-332 (2013)

Chaix L., de Brion S., Lévy-Bertrand F., Simonet V., Ballou R., Canals B., Lejay P., Brubach J.B., Creff G., Willaert F., Roy P., Cano A. THz magnetoelectric atomic rotations in the chiral compound $\text{Ba}_3\text{NbFe}_3\text{Si}_2\text{O}_{14}$

Physical Review Letters **110**, 157208-1-157208-5 (2013)

Chatterji T., Jalarvo N. Low energy nuclear spin excitations in Ho metal investigated by high resolution neutron spectroscopy

Journal of Physics Condensed Matter **25**, 156002-1-156002-5 (2013)

Chatterji T., Jalarvo N., Kumar C.M.N., Xiao Y., Brückel T. Direct observation of low energy nuclear spin excitations in HoCrO_3 by high resolution neutron spectroscopy

Journal of Physics Condensed Matter **25**, 286003-1-286003-6 (2013)

Chatterji T., Jalarvo N., Szytula A. Low energy nuclear spin excitations in HoAl_2 investigated by high resolution neutron spectroscopy

Solid State Communications **161**, 42-45 (2013)

Chatterji T., Zbiri M., Rols S. Phonon-magnon coupling in CoF_2 investigated by time-of-flight neutron spectroscopy

Solid State Communications **174**, 55-62 (2013)

Clark L., Orain J.C., Bert F., de Vries M.A., Aidoudi F.H., Morris R.E., Lightfoot P., Lord J.S., Telling M.T.F., Bonville P., Attfield J.P., Mendels P., Harrison A. Gapless spin liquid ground state in the $S=1/2$ vanadium oxyfluoride Kagome antiferromagnet $[\text{NH}_4]_2[\text{C}_7\text{H}_{14}\text{N}][\text{V}_7\text{O}_6\text{F}_{18}]$

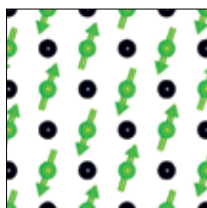
Physical Review Letters **110**, 207208-1-207208-5 (2013)

Coduri M., Scavini M., Brunelli M., Masala P. *In situ* pair distribution function study on lanthanum doped ceria

Physical Chemistry Chemical Physics **15**, 8495-8505 (2013)

Colegrove P.A., Coules H.E., Fairman J., Martina F., Kashoob T., Mamash H., Cozzolino I.D. Microstructure and residual stress improvement in wire and arc additively manufactured parts through high-pressure rolling

Journal of Materials Processing Technology **213**, 1782-1791 (2013)



Coomer F.C., Cussen E.J. Structural and magnetic properties of $\text{Ba}_2\text{LuMoO}_6$: A valence bond glass
Journal of Physics Condensed Matter **25**, 082202-1-082202-4 (2013)

Damay F., Petit S., Braendlein M., Rols S., Ollivier J., Martin C., Maignan A. Spin dynamics in the unconventional multiferroic AgCrS_2
Physical Review B **87**, 134413-1-134413-8 (2013)

David R., Kabbour H., Colis S., Pautrat A., Suard E., Mentré O. Magnetization steps promoted by structural modulation in BaCoX_2O_7 ($X = \text{As}, \text{P}$)
Journal of Physical Chemistry C **117**, 18190-18198 (2013)

Drees Y., Lamago D., Piovano A., Komarek A.C. Hour-glass magnetic spectrum in a stripeless insulating transition metal oxide
Nature Communications **4**, 2449-1-2449-7 (2013)

Dreiser J., Pedersen K.S., Schnegg A., Holldack K., Nehrkorn J., Sigrist M., Tregenna-Piggott P., Mutka H., Weihe H., Mironov V.S., Bendix J., Waldmann O. Three-axis anisotropic exchange coupling in the single-molecule magnets $\text{NEt}_4[\text{Mn}^{\text{III}}_2(5\text{-Brsalen})_2(\text{MeOH})_2\text{M}^{\text{II}}(\text{CN})_6]$ ($M = \text{Ru}, \text{Os}$)
Chemistry - A European Journal **19**, 3693-3701 (2013)

Freeman P.G., Giblin S.R., Hradil K., Mole R.A., Prabhakaran D. Development of the magnetic excitations of charge-stripe ordered $\text{La}_{2-x}\text{Sr}_x\text{NiO}_4$ on doping towards checkerboard charge order
Journal of the Korean Physical Society **62**, 1453-1457 (2013)

Gentile T.R., Hayden M.E., Nacher P.J., Petukhov A.K., Saam B., Walker T.G. Comment on "Enhanced polarization and mechanisms in optically pumped hyperpolarized ^3He in the presence of ^4He "
Physical Review A **88**, 017401-1-017401-3 (2013)

Guitteny S., Robert J., Bonville P., Ollivier J., Decorse C., Steffens P., Boehm M., Mutka H., Mirebeau I., Petit S. Anisotropic propagating excitations and quadrupolar effects in $\text{Tb}_2\text{Ti}_2\text{O}_7$
Physical Review Letters **111**, 087201-1-087201-5 (2013)

Huesges Z., Stockert O., Koza M.M., Krellner C., Geibel C., Steglich F. Crystalline electric field splitting in YbNi_4P_2 measured by inelastic neutron scattering
Physica Status Solidi (b) **250**, 522-524 (2013)

Jain A., Portnichenko P.Y., Jang H., Jackeli G., Friemel G., Ivanov A., Piovano A., Yusuf S.M., Keimer B., Inosov D.S. One-dimensional dispersive magnon excitation in the frustrated spin-2 chain system $\text{Ca}_3\text{Co}_2\text{O}_6$
Physical Review B **88**, 224403-1-224403-5 (2013)

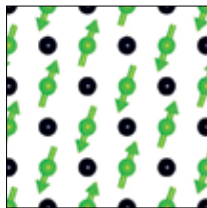
Jaubert L.D.C., Harris M.J., Fennell T., Melko R.G., Bramwell S.T., Holdsworth P.C.W. Topological-sector fluctuations and Curie-law crossover in spin ice
Physical Review X **3**, 011014-1-011014-13 (2013)

Kadlec C., Kadlec F., Goian V., Gich M., Kempa M., Rols S., Savinov M., Prokleska J., Orlita M., Kamba S. Electromagnon in ferrimagnetic $\epsilon\text{-Fe}_2\text{O}_3$ nanograin ceramics
Physical Review B **88**, 104301-1-104301-8 (2013)

Lee C.H., Steffens P., Qureshi N., Nakajima M., Kihou K., Iyo A., Eisaki H., Braden M. Universality of the dispersive spin-resonance mode in superconducting BaFe_2As_2
Physical Review Letters **111**, 167002-1-167002-5 (2013)

Lim J.A., Blackburn E., Magnani N., Hiess A., Regnault L.P., Caciuffo R., Lander G.H. Unexpected phase locking of magnetic fluctuations in the multi-k magnet USb
Physical Review B **87**, 064421-1-064421-5 (2013)

MAGNETIC EXCITATIONS



Luo H., Wang M., Zhang C., Lu X., Regnault L.P., Zhang R., Li S., Hu J., Dai P. Spin excitation anisotropy as a probe of orbital ordering in the paramagnetic tetragonal phase of superconducting $\text{BaFe}_{1.904}\text{Ni}_{0.096}\text{As}_2$

Physical Review Letters **111**, 107006-1-107006-6 (2013)

Mandal P., Serrao C.R., Suard E., Caignaert V., Raveau B., Sundaresan A., Rao C.N.R. Spin reorientation and magnetization reversal in the perovskite oxides, $\text{YFe}_{1-x}\text{Mn}_x\text{O}_3$ ($0 \leq x \leq 0.45$): A neutron diffraction study

Journal of Solid State Chemistry **197**, 408-413 (2013)

Marik S., Dos Santos-García A.J., Moran E., Toulemonde O., Alario-Franco M.A. Spin glass to superconducting phase transformation by oxidation of a molybdo-cuprate: $\text{Mo}_{0.3}\text{Cu}_{0.7}\text{Sr}_2\text{TmCu}_2\text{O}_y$

Journal of Physics Condensed Matter **25**, 165704-1-165704-11 (2013)

Mathieu R., Ivanov S.A., Nordblad P., Weil M. Enhancement of antiferromagnetic interaction and transition temperature in M_3TeO_6 systems ($\text{M} = \text{Mn}, \text{Co}, \text{Ni}, \text{Cu}$)

European Physical Journal B **86**, 361-1-361-4 (2013)

Mourigal M., Enderle M., Klöpperpieper A., Caux J.S., Stunault A., Rønnow H.M.

Fractional spinon excitations in the quantum Heisenberg antiferromagnetic chain

Nature Physics **9**, 435-441 (2013)

Nagy B., Khaydukov Y.N., Kiss L.F., Sajti S., Merkel D.G., Tanczikó F., Vasenko A.S., Tsaregorodsev R.O., Rühm A., Keller T., Bottyán L. Controlling exchange coupling strength in $\text{Ni}_x\text{Cu}_{1-x}$ thin films

Journal of Superconductivity and Novel Magnetism **26**, 1957-1961 (2013)

Nemkovski K.S., Alekseev P.A., Mignot J.M., Ivanov A.S. Resonant mode in rare-earth based strongly correlated semiconductors

Physics Procedia **42**, 18-24 (2013)

Nilsen G.J., de Vries M.A., Stewart J.R., Harrison A., Rønnow H.M. Low-energy spin dynamics of the $s = 1/2$ kagome system herbertsmithite

Journal of Physics Condensed Matter **25**, 106001-1-106001-5 (2013)

Petit S., Balédent V., Doubrovsky C., Lepetit M.B., Greenblatt M., Wanklyn B., Foury-Leylekan P. Investigation of the electromagnon excitations in the multiferroic TbMn_2O_5

Physical Review B **87**, 140301-1-140301-5 (2013)

Pospíšil J., Nénert G., Miyashita S., Kitazawa H., Skourski Y., Diviš M., Prokleška J., Sechovský V. Complex magnetic phase diagram of a geometrically frustrated Sm lattice: Magnetometry and neutron diffraction study of SmPd_2Al_3

Physical Review B **87**, 214405-1-214405-10 (2013)

Rastovski C., Schlesinger K.J., Gannon W.J., Dewhurst C.D., DeBeer-Schmitt L., Zhigadlo N.D., Karpinski J., Eskildsen M.R. Persistence of metastable vortex lattice domains in MgB_2 in the presence of vortex motion

Physical Review Letters **111**, 107002-1-107002-5 (2013)

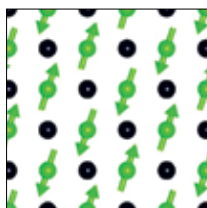
Simutis G., Gvasaliya S., Månsson M., Chernyshev A.L., Mohan A., Singh S., Hess C., Savici A.T., Kolesnikov A.I., Piovano A., Perring T., Zaliznyak I., Büchner B., Zheludev A.

Spin pseudogap in Ni-doped SrCuO_2

Physical Review Letters **111**, 067204-1-067204-5 (2013)

Singh S.K., Pedersen K.S., Sigrist M., Thuesen C.A., Schau-Magnussen M., Mutka H., Piligkos S., Weihe H., Rajaraman G., Bendix J. Angular dependence of the exchange interaction in fluoride-bridged $\text{Gd}^{\text{III}}\text{-Cr}^{\text{III}}$ complexes

Chemical Communications **49**, 5583-5585 (2013)



Song Y., Regnault L.P., Zhang C., Tan G., Carr S.V., Chi S., Christianson A.D., Xiang T., Dai P. In-plane spin excitation anisotropy in the paramagnetic state of NaFeAs
Physical Review B **88**, 134512-1-134512-6 (2013)

Steffens P., Lee C.H., Qureshi N., Kihou K., Iyo A., Eisaki H., Braden M. Splitting of resonance excitations in nearly optimally doped $\text{Ba}(\text{Fe}_{0.94}\text{Co}_{0.06})_2\text{As}_2$: An inelastic neutron scattering study with polarization analysis
Physical Review Letters **110**, 137001-1-137001-5 (2013)

Taniguchi T., Kadowaki H., Takatsu H., Fåk B., Ollivier J., Yamazaki T., Sato T. J., Yoshizawa H., Shimura Y., Sakakibara T., Hong T., Goto K., Yaraskavitch L.R., Kycia J.B. Long-range order and spin-liquid states of polycrystalline $\text{Tb}_{2+x}\text{Ti}_{2-x}\text{O}_{7+y}$
Physical Review B **87**, 060408-1-060408-5 (2013)

Taylor A.E., Ewings R.A., Perring T.G., Parker D.R., Ollivier J., Clarke S.J., Boothroyd A.T. Absence of strong magnetic fluctuations in FeP-based systems LaFePO and $\text{Sr}_2\text{ScO}_3\text{FeP}$
Journal of Physics: Condensed Matter **25**, 425701-1-425701-7 (2013)

Toliński T., Synoradzki K., Hoser A., Rols S. Crystal field manifestation in inelastic neutron scattering, magnetic susceptibility and specific heat of the antiferromagnetic CeCoAl_4
Journal of Magnetism and Magnetic Materials **345**, 243-248 (2013)

Woitschach S., Stockert O., Koza M.M., Fritsch V., von Löhneysen H., Steglich F. Characteristic energy scales in CePdAl
Physica Status Solidi (b) **250**, 468-471 (2013)

Xiao Y., Nandi S., Su Y., Price S., Li H.F., Fu Z., Jin W., Piovano A., Ivanov A., Schmalzl K., Schmidt W., Chatterji T., Wolf Th., Brückel T. Magnetic anisotropic energy gap and low-energy spin wave excitation in the antiferromagnetic block phase of $\text{K}_2\text{Fe}_4\text{Se}_5$
Physical Review B **87**, 140408-1-140408-6 (2013)

Zhang C., Liu M., Su Y., Regnault L.P., Wang M., Tan G., Brückel T., Egami T., Dai P. Magnetic anisotropy in hole-doped superconducting $\text{Ba}_{0.67}\text{K}_{0.33}\text{Fe}_2\text{As}_2$ probed by polarized inelastic neutron scattering
Physical Review B **87**, 081101-1-081101-5 (2013)

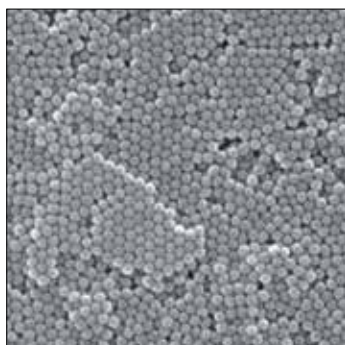
Zhernenkov K., Gorkov D., Toperverg B.P., Zabel H. Frequency dependence of magnetization reversal in thin Fe(100) films
Physical Review B **88**, 020401-1-020401-5 (2013)

Chernyshev A.L., Zhitomirsky M.E., Martin N., Regnault L.P. Lifetime of gapped excitations in a collinear quantum antiferromagnet
Physical Review Letters **109**, 097201-1-097201-5 (2012)

Lenertz M., Alaria J., Stoeffler D., Colis S., Dinia A., Mentré O., André G., Porcher F., Suard E. Magnetic structure of ground and field-induced ordered states of low-dimensional $\alpha\text{-CoV}_2\text{O}_6$: Experiment and theory
Physical Review B **86**, 214428-1-214428-8 (2012)

Li Y., Yu G., Chan M.K., Balédent V., Barišič N., Zhao X., Hradil K., Mole R.A., Sidis Y., Steffens P., Bourges P., Greven M. Two Ising-like magnetic excitations in a single-layer cuprate superconductor
Nature Physics **8**, 404-410 (2012)

Robert J., Mignot J.M., Petit S., Steffens P., Nishioka T., Kobayashi R., Matsumura M., Tanida H., Tanaka D., Sera M. Anisotropic spin dynamics in the Kondo semiconductor $\text{CeRu}_2\text{Al}_{10}$
Physical Review Letters **109**, 267208-1-267208-5 (2012)



Aldus R.J., Fennell T., Deen P.P., Ressouche E., Lau G.C., Cava R.J., Bramwell S.T. Ice rule correlations in stuffed spin ice
New Journal of Physics **15**, 013022-1-013022-9 (2013)

Alleno E., Mazumdar C. Magnetic structures in RNi_4B ($R=Nd, Tb, Ho, Er$)
Journal of Solid State Chemistry **202**, 15-21 (2013)

Álvarez-Alonso P., Gorria P., Sánchez Llamazares J.L., Cuello G.J., Puente Orench I., Sánchez Marcos J., Garbarino G., Reiffers M., Blanco J.A. Exploring the magneto-volume anomalies in Dy_2Fe_{17} with unconventional rhombohedral crystal structure
Acta Materialia **61**, 7931-7937 (2013)

Arévalo-López Á.M., Attfield J.P. Weak ferromagnetism and domain effects in multiferroic $LiNbO_3$ -type $MnTiO_3$ -II
Physical Review B **88**, 104416-1-104416-6 (2013)

Arslanov T.R., Mollaev A.Y., Kamilov I.K., Arslanov R.K., Kilanski L., Trukhan V.M., Chatterji T., Marenkin S.F., Fedorchenko I.V. Emergence of pressure-induced metamagnetic-like state in Mn-doped $CdGeAs_2$ chalcopyrite
Applied Physics Letters **103**, 192403-1-192403-5 (2013)

Azad A.K., Sánchez-Benítez J., Irvine J.T.S. Spin-glass transition in $La_{0.75}Sr_{0.25}Mn_{0.5}Cr_{0.5-x}Al_xO_{3-\delta}$ perovskites
Materials Research Bulletin **48**, 2482-2490 (2013)

Bartolomé F., Bonilla C.M., Herrero-Albillos J., Calvo-Almazán I., Castán C., Weschke E., Schmitz D., Paudyal D., Mudryk Y., Pecharsky V., Gschneidner K.A., Stunault A., García L.M. Short-range magnetic correlations and paramagnetism in RCo_2
European Physical Journal B **86**, 489-1-489-9 (2013)

Battle P.D., Evers S.I., Hunter E.C., Westwood M. $La_3Ni_2SbO_9$: a relaxor ferromagnet
Inorganic Chemistry **52**, 6648-6653 (2013)

Baum M., Schmalzl K., Steffens P., Hiess A., Regnault L.P., Meven M., Becker P., Bohatý L., Braden M. Controlling toroidal moments by crossed electric and magnetic fields
Physical Review B **88**, 024414-1-024414-5 (2013)

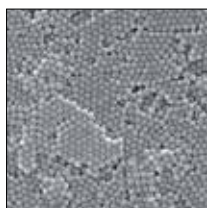
Bourdarot F., Ressouche E., Ballou R., Raymond S., Aoki D., Martin N., Regnault L.P., Simonet V., Fernández-Díaz M.T., Stunault A., Taufour V., Flouquet J. Polarized neutron on URu_2Si_2
Physics Procedia **42**, 4-9 (2013)

Brown P.J., Chatterji T. Polarization dependence of magnetic Bragg scattering in YMn_2O_5
Journal of Physics Condensed Matter **25**, 236004-1-236004-8 (2013)

Cabana J., Casas-Cabanas M., Omenya F.O., Chernova N.A., Zeng D., Whittingham M.S., Grey C.P. Composition-structure relationships in the Li-ion battery electrode material $LiNi_{0.5}Mn_{1.5}O_4$
Chemistry of Materials **24**, 2952-2964 (2012)

Canévet E., Grenier B., Klanjšek M., Berthier C., Horvatic M., Simonet V., Lejay P. Field-induced magnetic behavior in quasi-one-dimensional Ising-like antiferromagnet $BaCo_2V_2O_8$: A single-crystal neutron diffraction study
Physical Review B **87**, 054408-1-054408-15 (2013)

Čermák P., Diviš M., Kratochvílová M., Javorský P. Specific heat study of R_2RhIn_8 ($R=Y, La, Lu$) compounds
Solid State Communications **163**, 55-59 (2013)



Clark L., Ritter C., Harrison A., Atfield J.P. Oxygen miscibility gap and spin glass formation in the pyrochlore $\text{Lu}_2\text{Mo}_2\text{O}_7$
Journal of Solid State Chemistry **203**, 199-203 (2013)

Clemens O., Wright A.J., Knight K.S., Slater P.R. On the soft magnetic properties of the compounds of the series $\text{Na}_x\text{Mn}_{4.5-x/2}(\text{VO}_4)_3$ and the magnetic structure of $\text{h.t.}\text{Mn}_3(\text{VO}_4)_2$ ($x = 1$)
Dalton Transactions **42**, 7894-7900 (2013)

Cooper J.F.K., Ionescu A., Langford R.M., Ziebeck K.R.A., Barnes C.H.W., Gruar R., Tighe C., Darr J. A., Thanh N.T.K., Ouladdiaf B. Core/shell magnetism in NiO nanoparticles
Journal of Applied Physics **114**, 083906-1-083906-7 (2013)

Cuartero V., Blasco J., García J., Lafuerza S., Subías G. Evolution of Mn and Co oxidation state on $\text{TbMn}_{1-x}\text{Co}_x\text{O}_3$ compounds
Journal of Physics : Conference Series **430**, 012102-1-012102-4 (2013)

Cuartero V., Blasco J., García J., Rodríguez-Velamazán J.A., Ritter C. Metamagnetic transition in $\text{Tb}_2\text{MnCoO}_6$
EPJ Web of Conferences **40**, 15002-1-15002-4 (2013)

Cuartero V., Blasco J., García J., Stankiewicz J., Subías G., Rodríguez-Velamazán J.A., Ritter C. Evolution of magnetoelectric properties of Sc-diluted TbMnO_3
Journal of Physics Condensed Matter **25**, 195601-1-195601-9 (2013)

Cuartero V., Blasco J., Rodríguez-Velamazán J.A., García J., Subías G., Ritter C. Transitions induced by a magnetic field in slightly doped TbMnO_3
Solid State Sciences **21**, 37-43 (2013)

de Pablos-Martín A., Ristic D., Bhattacharyya S., Hoche T., Mather G.C., Ramírez M.O., Soria S., Ferrari M., Righini G.C., Bausá L.E., Duran A., Pascual M.J. Effects of Tm^{3+} additions on the crystallization of LaF_3 nanocrystals in oxyfluoride glasses: Optical characterization and up-conversion
Journal of the American Ceramic Society **96**, 447-457 (2013)

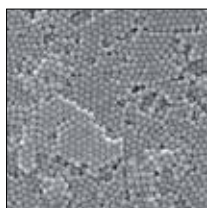
Delmonte D., Mezzadri F., Pernechele C., Calestani G., Spina G., Lantieri M., Solzi M., Cabassi R., Bolzoni F., Migliori A., Ritter C., Gilioli E. Thermally activated magnetization reversal in bulk $\text{BiFe}_{0.5}\text{Mn}_{0.5}\text{O}_3$
Physical Review B **88**, 014431-1-014431-11 (2013)

Dos Santos-García A.J., Ritter C., Solana-Madruga E., Saéz-Puche R. Magnetic and crystal structure determination of $\text{Mn}_2\text{FeSbO}_6$ double perovskite
Journal of Physics Condensed Matter **25**, 206004-1-206004-6 (2013)

Freeman P.G., Niedermayer C., Prabhakaran D. Search for third harmonic magnetic Bragg reflections in charge-stripe ordered $\text{La}_{1.725}\text{Sr}_{0.275}\text{NiO}_4$
Journal of Physics : Conference Series **391**, 012089-1-012089-4 (2012)

Fritsch K., Yamani Z., Chang S., Qiu Y., Copley J.R.D., Ramazanoglu M., Dabkowska H.A., Gaulin B.D. Magnetic order and fluctuations in the presence of quenched disorder in the kagome staircase system $(\text{Co}_{1-x}\text{Mg}_x)_3\text{V}_2\text{O}_8$
Physical Review B **86**, 174421-1-174421-10 (2012)

Granata V., Capogna L., Reehuis M., Fittipaldi R., Ouladdiaf B., Pace S., Cuoco M., Vecchione A. Neutron diffraction study of triple-layered $\text{Sr}_4\text{Ru}_3\text{O}_{10}$
Journal of Physics Condensed Matter **25**, 056004-1-056004-6 (2013)



Grigoriev S.V., Potapova N.M., Siegfried S.A., Dyadkin V.A., Moskvina E.V., Dmitriev V., Menzel D., Dewhurst C.D., Chernyshov D., Sadykov R.A., Fomicheva L.N., Tsvyashchenko A.V. Chiral properties of structure and magnetism in $Mn_{1-x}Fe_xGe$ compounds: When the left and the right are fighting, Who wins?

Physical Review Letters **110**, 207201-1-207201-5 (2013)

Honecker D., Dewhurst C.D., Suzuki K., Erokhin S., Michels A. Analysis of magnetic neutron-scattering data of two-phase ferromagnets

Physical Review B **88**, 094428-1-094428-6 (2013)

Inosov D.S., Friemel G., Park J.T., Walters A.C., Texier Y., Laplace Y., Bobroff J., Hinkov V., Sun D.L., Liu Y., Khasanov R., Sedlak K., Bourges P., Sidis Y., Ivanov A., Lin C.T., Keller T., Keimer B. Possible realization of an antiferromagnetic Griffiths phase in $Ba(Fe_{1-x}Mn_x)_2As_2$

Physical Review B **87**, 224425-1-224425-16 (2013)

Iturbe-Zabalo E., Igartua J.M., Aatiq A., Pomjakushin V. A structural study of the $CaLn_2CuTi_2O_9$ ($Ln=Pr, Nd, Sm$) and $BaLn_2CuTi_2O_9$ ($Ln=La, Pr, Nd$) triple perovskite series

Journal of Molecular Structure **1034**, 134-143 (2013)

Iturbe-Zabalo E., Igartua J.M., Faik A., Larrañaga A., Hoelzel M., Cuello G.J.

Crystal structures and high-temperature phase-transitions in $SrNdMRuO_6$ ($M=Zn, Co, Mg, Ni$) new double perovskites studied by symmetry-mode analysis

Journal of Solid State Chemistry **198**, 24-38 (2013)

Iturbe-Zabalo E., Igartua J.M., Larrañaga A., Pomjakushin V., Castro G., Cuello G.J.

Structural study of $SrPrZnRuO_6$, $SrPrCoRuO_6$, $SrPrMgRuO_6$ and $SrPrNiRuO_6$ double perovskite oxides by symmetry-adapted mode analysis

Journal of Physics Condensed Matter **25**, 205401-1-205401-14 (2013)

Ivanov S.A., Mathieu R., Nordblad P., Tellgren R., Ritter C., Politova E., Kaleva G., Mosunov A., Stefanovich S., Weil M. Spin and dipole ordering in Ni_2InSbO_6 and Ni_2ScSbO_6 with corundum-related structure

Chemistry of Materials **25**, 935-945 (2013)

Jain A., Yusuf S.M., Meena S.S., Ritter C. Stabilization of the spin density wave structure with rare-earth substitution in $Ca_3Co_2O_6$

Physical Review B **87**, 094411-1-094411-10 (2013)

Karpinsky D.V., Troyanchuk I.O., Lobanovsky I.S., Chobot A.N., Ritter C., Efimov V., Sikolenko V., Kholkin A.L. Magnetic and structural phase transitions in $La_{0.5}Sr_{0.5}CoO_{3-\delta}$ ($0 \leq \delta < 0.3$) cobalites

Journal of Physics Condensed Matter **25**, 316004-1-316004-6 (2013)

Kayser P., Martínez-Lope M.J., Alonso J.A., Sánchez-Benítez J., Fernández M.T. High-pressure synthesis and characterization of $BiCu_3(Mn_{4-x}Fe_x)O_{12}$ ($x=0, 1.0, 2.0$) complex perovskites

Journal of Solid State Chemistry **204**, 78-85 (2013)

Klein S., Holland-Moritz D., Herlach D.M., Mauro N.A., Kelton K.F. Short-range order of undercooled melts of $PdZr_2$ intermetallic compound studied by X-ray and neutron scattering experiments

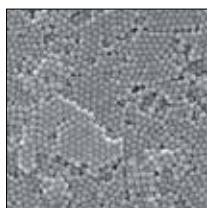
EPL (Europhysics Letters) **102**, 36001-p1-36001-p6 (2013)

Knut R., Svedlindh P., Mryasov O., Gunnarsson K., Warnicke P., Arena D.A., Björck M., Dennison A.J.C., Sahoo A., Mukherjee S., Sarma D.D., Granroth S., Gorgoi M., Karis O. Interface characterization of Co_2MnGe/Rh_2CuSn Heusler multilayers

Physical Review B **88**, 134407-1-134407-8 (2013)

Kohn A., Kovács A., Fan R., McIntyre G.J., Ward R.C.C., Goff J.P. The antiferromagnetic structures of $IrMn_3$ and their influence on exchange-bias

Scientific Reports **3**, 2412-1-2412-7 (2013)



Kurzman J.A., Jouan G., Courty M., Palacín M.R., Armand M., Recham N. Brønsted acid-base reactions with anhydrous sulfamates as a pathway to $[\text{SO}_3\text{N}]^{3-}$ -containing compounds: Preparation of $\text{Li}_3\text{SO}_3\text{N}$

Solid State Sciences **25**, 28-32 (2013)

Kuwahara K., Yoshii S., Nojiri H., Aoki D., Knafo W., Duc F., Fabrèges X., Scheerer G.W., Frings P., Rikken G.L.J.A., Bourdarot F., Regnault L.P., Flouquet J. Magnetic structure of phase II in $\text{U}(\text{Ru}_{0.96}\text{Rh}_{0.04})_2\text{Si}_2$ determined by neutron diffraction under pulsed high magnetic fields

Physical Review Letters **110**, 216406-1-216406-5 (2013)

Lázpita P., Chernenko V.A., Barandiarán J.M., Gutiérrez J., Hosoda H., Rodríguez-Velamazán J.A. Magnetoelastic anomalies exhibited by Ni-Fe(Co)-Ga polycrystalline ferromagnetic shape memory alloy

Materials Transactions **54**, 1535-1538 (2013)

Lee C., Liu J., Whangbo M.H., Koo H.J., Kremer R.K., Simon A. Investigation of the spin exchange interactions and the magnetic structure of the high-temperature multiferroic CuBr_2

Physical Review B **86**, 060407-1-060407-5 (2012)

Lemine O.M., Bououdina M., Hlil E.K., Al-Saie A., Jaafar A., Alyamani A., Ouladdiaf B. Discrepancy of room temperature ferromagnetism in Mo-doped In_2O_3

Bulletin of Materials Science **36**, 25-29 (2013)

Lhotel E., Simonet V., Orloff J., Canals B., Paulsen C., Suard E., Hansen T., Price D.J., Wood P.T., Powell A.K., Ballou R. Magnetic properties of a family of quinary oxalates

European Physical Journal B **86**, 248-1-248-9 (2013)

Macías M.A., Mentré O., Colis S., Cuello G.J., Gauthier G.H. Structure and magnetic properties of $\text{Ba}_5\text{Ce}_{1.25}\text{Mn}_{3.75}\text{O}_{15}$, a new 10H-polytype in the Ba-Ce-Mn-O system

Journal of Solid State Chemistry **198**, 186-191 (2013)

Manuel P., Chapon L.C., Trimarchi G., Todorov I.S., Chung D.Y., Ouladdiaf B., Gutmann M.J., Freeman A.J., Kanatzidis M.G. Influence of Cr doping on the magnetic structure of the FeAs-strips compound CaFe_4As_3 : A single-crystal neutron diffraction study

Physical Review B **88**, 104414-1-104414-4 (2013)

Martinelli A., Ferretti M., Castellano C., Cimberle M.R., Masini R., Peddis D., Ritter C. Structural, microstructural and magnetic properties of $(\text{La}_{1-x}\text{Ca}_x)\text{MnO}_3$ nanoparticles

Journal of Physics Condensed Matter **25**, 176003-1-176003-13 (2013)

Martinelli A., Ferretti M., Castellano C., Cimberle M.R., Ritter C. Effect of Cu^{2+} and Ni^{2+} substitution at the Mn site in $(\text{La}_{0.63}\text{Ca}_{0.37})\text{MnO}_3$: A neutron powder diffraction investigation

Journal of Solid State Chemistry **200**, 128-135 (2013)

Martín P., López M.L., Pico C., Veiga M.L. Structural characterization and electrochemical behaviour of $\text{Li}_{(4-x)/3}\text{Ti}_{(5-2x)/3}\text{Mn}_x\text{O}_4$ solid solution with spinel-structure

Materials Chemistry and Physics **140**, 535-542 (2013)

Mazet T., Ban V., Sibille R., Capelli S., Malaman B. Magnetic properties of MgFe_6Ge_6

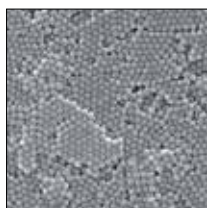
Solid State Communications **159**, 79-83 (2013)

Mezzadri F., Calestani G., Righi L., Pernechele C., Solzi M., Ritter C. Triangular exchange interaction patterns in $\text{K}_3\text{Fe}_6\text{F}_{19}$: An iron potassium fluoride with a complex tungsten bronze related structure

Inorganic Chemistry **52**, 12599-12604 (2013)

Moore D.B., Beekman M., Disch S., Zschack P., Häusler I., Neumann W., Johnson D.C. Synthesis, structure, and properties of turbostratically disordered $(\text{PbSe})_{1.18}(\text{TiSe}_2)_2$

Chemistry of Materials **25**, 2404-2409 (2013)



Murshed M.M., Néner G., Burianek M., Robben L., Mühlberg M., Schneider H., Fischer R.X., Gesing T.M. Temperature-dependent structural studies of mullite-type $\text{Bi}_2\text{Fe}_4\text{O}_9$
Journal of Solid State Chemistry **197**, 370-378 (2013)

Néner G., Bettis J., Kremer R., Ben Yahia H., Ritter C., Gaudin E., Isnard O., Whangbo M.H. Magnetic properties of the RbMnPO_4 zeolite-ABW-type material: A frustrated zigzag spin chain
Inorganic Chemistry **52**, 9627-9635 (2013)

Néner G., Koo H.J., Colin C.V., Bauer E.M., Bellitto C., Ritter C., Righini G., Whangbo M.H. Magnetic order through super-superexchanges in the polar magnetoelectric organic-inorganic hybrid $\text{Cr}[\text{D}_3\text{N}(\text{CH}_2)_2\text{PO}_3](\text{Cl})(\text{D}_2\text{O})$
Inorganic Chemistry **52**, 753-760 (2013)

Niesen S.K., Kolland G., Seher M., Breunig O., Valldor M., Braden M., Grenier B., Lorenz T. Magnetic phase diagrams, domain switching, and quantum phase transition of the quasi-one-dimensional Ising-like antiferromagnet $\text{BaCo}_2\text{V}_2\text{O}_8$
Physical Review B **87**, 224413-1-224413-9 (2013)

Nozaki H., Månsson M., Roessli B., Pomjakushin V., Kamazawa K., Ikeda Y., Fischer H.E., Hansen T.C., Yoshida H., Hiroi Z., Sugiyama J. Magnetic structure of the metallic triangular antiferromagnet Ag_2NiO_2
Journal of Physics Condensed Matter **25**, 286005-1-286005-6 (2013)

Opagiste C., Jackson M.J., Galéra R.M., Ihotel E., Paulsen C., Ouladdiaf B. Metamagnetic behaviour of $\text{Nd}_3\text{Pt}_{23}\text{Si}_{11}$
Journal of Magnetism and Magnetic Materials **340**, 46-49 (2013)

Paddison J.A.M., Stewart J.R., Manuel P., Courtois P., McIntyre G.J., Rainford B.D., Goodwin A.L. Emergent frustration in Co-doped $\beta\text{-Mn}$
Physical Review Letters **110**, 267207-1-267207-5 (2013)

Pani M., Manfrinetti P., Provino A., Yuan F., Mozharivskij Y., Morozkin A.V., Knotko A.V., Garshev A.V., Yapaskurt V.O., Isnard O. New tetragonal derivatives of cubic NaZn_{13} -type structure: RNi_6Si_6 compounds, crystal structure and magnetic ordering ($R=\text{Y, La, Ce, Sm, G-Yb}$)
Journal of Solid State Chemistry **210**, 45-52 (2013)

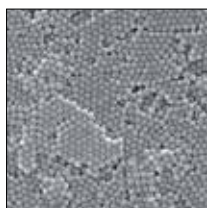
Pellicer E., Cabo M., López-Ortega A., Estrader M., Yedra L., Estradé S., Peiro F., Saghi Z., Midgley P., Rossinyol E., Golosovsky I.V., Mayoral A., Prades J.D., Suriñach S., Baró M.D., Sort J., Nogués J. Controlled 3D-coating of the pores of highly ordered mesoporous antiferromagnetic Co_3O_4 replicas with ferrimagnetic $\text{Fe}_x\text{Co}_{3-x}\text{O}_4$ nanolayers
Nanoscale **5**, 5561-5567 (2013)

Ponthieu M., Cuevas F., Fernández J.F., Laversenne L., Porcher F., Latroche M. Structural properties and reversible deuterium loading of $\text{MgD}_2\text{-TiD}_2$ nanocomposites
Journal of Physical Chemistry C **117**, 18851-18862 (2013)

Popa F., Isnard O., Chicinas I., Pop V. Thermal evolution of the Ni_3Fe compound obtained by mechanical alloying as probed by differential scanning calorimetry
Journal of Alloys and Compounds **554**, 39-44 (2013)

Prokes K., Mydosh J.A., Prokhnenko O., Stein W.D., Landsgesell S., Hermes W., Feyerherm R., Pöttgen R. Antiferromagnetic ordering in a mixed-valent cerium compound CeRuSn
Physical Review B **87**, 094421-1-094421-9 (2013)

Qureshi N., Ressouche E., Mukhin A.A., Ivanov V.Y., Barilo S.N., Shiryayev S.V., Skumryev V. Stabilization of multiferroic spin cycloid in $\text{Ni}_3\text{V}_2\text{O}_8$ by light Co doping
Physical Review B **88**, 174412-1-174412-8 (2013)



Rastovski C., Dewhurst C.D., Gannon W.J., Peets D.C., Takatsu H., Maeno Y., Ichioka M., Machida K., Eskildsen M.R. Anisotropy of the superconducting state in Sr_2RuO_4
Physical Review Letters **111**, 087003-1-087003-5 (2013)

Recour Q., Ban V., Gercsi Z., Mazet T., François M., Malaman B. Magnetic structures of $\text{Mn}_{3-x}\text{Fe}_x\text{Sn}_2$: An experimental and theoretical study
Physical Review B **88**, 054429-1-054409-10 (2013)

Reynaud M., Rouse G., Chotard J.N., Rodríguez-Carvajal J., Tarascon J.M. Marinite $\text{Li}_2\text{M}(\text{SO}_4)_2$ ($\text{M} = \text{Co}, \text{Fe}, \text{Mn}$) and $\text{LiFe}(\text{SO}_4)_2$: Model compounds for super-super-exchange magnetic interactions
Inorganic Chemistry **52**, 10456-10466 (2013)

Ritter C., Yusuf S.M., Bera A.K., Goto Y., Tassel C., Kageyama H., Arévalo-López Á.M., Attfield J.P. Field-induced evolution of magnetic ordering in the quantum spin system $(\text{CuBr})\text{Sr}_2\text{Nb}_3\text{O}_{10}$ with a $1/3$ magnetization plateau
Physical Review B **88**, 104401-1-104401-7 (2013)

Rousset A., Tenailleau C., Dufour P., Bordeneuve H., Pasquet I., Guillemet-Fritsch S., Poulain V., Schuurman S. Electrical properties of $\text{Mn}_{3-x}\text{Co}_x\text{O}_4$ ($0 \leq x \leq 3$) ceramics: An interesting system for negative temperature coefficient thermistors
International Journal of Applied Ceramic Technology **10**, 175-185 (2012)

Sabyasachi S., Bhattacharyya A., Majumdar S., Giri S., Chatterji T. Critical phenomena in $\text{Pr}_{0.52}\text{Sr}_{0.48}\text{MnO}_3$ single crystal
Journal of Alloys and Compounds **577**, 165-169 (2013)

Sato T.J., Ibuka S., Nambu Y., Yamazaki T., Hong T., Sakai A., Nakatsuji S. Ferroquadrupolar ordering in $\text{PrTi}_2\text{Al}_2\text{O}$
Physical Review B **86**, 184419-1-184419-8 (2012)

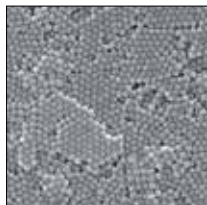
Schäpers M., Wolter A.U.B., Drechsler S.L., Nishimoto S., Müller K.H., Abdel-Hafiez M., Schottenhamel W., Büchner B., Richter J., Ouladdiaf B., Uhlarz M., Beyer R., Skourski Y., Wosnitza J., Rule K.C., Ryll H., Klemke B., Kiefer K., Reehuis M., Willenberg B., Süllow S. Thermodynamic properties of the anisotropic frustrated spin-chain compound linarite $\text{PbCuSO}_4(\text{OH})_2$
Physical Review B **88**, 184410-1-184410-17 (2013)

Sikolenko V., Efimov V.V., Tobbens D., Schorr S., Ritter C., Bushinsky M.V., Troyanchuk I.O. Pressure effects on oxygen-deficient Ba-substituted cobaltites
Powder Diffraction **28**, S126-S132 (2013)

Simmons L.M., Bentley P.M., Al-Jawad M., Kilcoyne S.H. A time dependent kinetic small angle neutron scattering study of a novel YFe phase
Journal of Physics Condensed Matter **25**, 255401-1-255401-7 (2013)

Troyanchuk I.O., Bushinsky M.V., Sikolenko V., Efimov V., Ritter C., Hansen T.C., Többens D.M. Pressure induced antiferromagnet-ferromagnet transition in $\text{La}_{0.5}\text{Ba}_{0.5}\text{CoO}_{2.8}$ cobaltite
European Physical Journal B **86**, 435-1-435-7 (2013)

Udby L., Larsen J., Christensen N.B., Boehm M., Niedermayer C., Mohottala H.E., Jensen T.B.S., Toft-Petersen R., Chou F.C., Andersen N.H., Lefmann K., Wells B.O. Measurement of unique magnetic and superconducting phases in oxygen-doped high-temperature superconductors $\text{La}_{2-x}\text{Sr}_x\text{CuO}_{4+y}$
Physical Review Letters **111**, 227001-1-227001-5 (2013)



Urcelay-Olabarria I., Perez-Mato J.M., Ribeiro J.L., García-Muñoz J.L., Ressouche E., Skumryev V., Mukhin A.A. Incommensurate magnetic structures of multiferroic MnVO_4 studied within the superspace formalism

Physical Review B **87**, 014419-1-014419-10 (2013)

Vasenko A.S., Ozaeta A., Kawabata S., Hekking F.W.J., Bergeret F.S. Andreev current and subgap conductance of spin-valve SFF structures

Journal of Superconductivity and Novel Magnetism **26**, 1951-1956 (2013)

Visinescu D., Fabelo O., Ruiz-Pérez C., Lloret F., Julve M. Synthesis, crystal structure and magnetic properties of a new cyanide-bridged mixed-valence copper(I)/copper(II) clathrate

Inorganic Chemistry Communications **35**, 252-254 (2013)

Volkov N.V., Eremin E.V., Bayukov O.A., Sablina K.A., Solov'ev L.A., Velikanov D.A., Mikhashenok N.V., Osetrov E.I., Schefer J., Keller L., Boehm M. Suppression of the long-range magnetic order in $\text{Pb}_3(\text{Mn}_{1-x}\text{Fe}_x)_7\text{O}_{15}$ upon substitution of Fe for Mn

Journal of Magnetism and Magnetic Materials **342**, 100-107 (2013)

White J.S., Bator M., Hu Y., Luetkens H., Stahn J., Capelli S., Das S., Döbeli M., Lippert T., Malik V.K., Martynczuk J., Wokaun A., Kenzelmann M., Niedermayer Ch., Schneider C.W. Strain-induced ferromagnetism in antiferromagnetic LuMnO_3 thin films

Physical Review Letters **111**, 037201-1-037201-5 (2013)

Wildes A.R., Al-Senany N.A., Cowlam N. Speromagnetism at the ferrimagnetic compensation point in an $\text{Fe}_{24}\text{Er}_{19}\text{B}_{17}$ metallic glass - the head of a dandelion, or the spokes of a wheel?

Journal of the Korean Physical Society **63**, 517-520 (2013)

Wulf E., Huvonen D., Kim J.W., Paduan-Filho A., Ressouche E., Gvasaliya S., Zapf V., Zheludev A. Criticality in a disordered quantum antiferromagnet studied by neutron diffraction

Physical Review B **88**, 174418-1-174418-4 (2013)

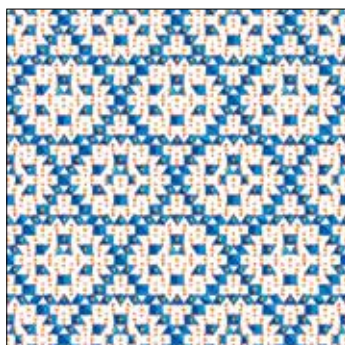
Young O., Wildes A.R., Manuel P., Ouladdiaf B., Khalyavin D.D., Balakrishnan G., Petrenko O.A. Highly frustrated magnetism in SrHo_2O_4 : Coexistence of two types of short-range order

Physical Review B **88**, 024411-1-024411-8 (2013)

Zhang C., Li H.F., Song Y., Su Y., Tan G., Netherton T., Redding C., Carr S.V., Sobolev O., Schneidewind A., Faulhaber E., Harriger L.W., Li S., Lu X., Yao D.X., Das T., Balatsky A.V., Brückel T., Lynn J.W., Dai P. Distinguishing s^\pm and s^{++} electron pairing symmetries by neutron spin resonance in superconducting $\text{NaFe}_{0.935}\text{Co}_{0.045}\text{As}$

Physical Review B **88**, 064504-1-064504-8 (2013)

MATERIALS SCIENCE AND ENGINEERING



Achintha M., Nowell D., Shapiro K., Withers P.J. Eigenstrain modelling of residual stress generated by arrays of laser shock peening shots and determination of the complete stress field using limited strain measurements

Surface and Coatings Technology **216**, 68-77 (2013)

Alonso-Domínguez D., Álvarez-Serrano I., López M.L., Veiga M.L., Pico C., Mompeán F., García-Hernández M., Cuello G.J. Versatile electronic behavior of the $\text{Li}_x\text{Mn}_{3-x-y}\text{Fe}_y\text{O}_4$ spinels

Journal of Alloys and Compounds **577**, 269-277 (2013)

Balima F., Pischedda V., Le Floch S., Brûlet A., Lindner P., Duclaux L., San-Miguel A.

An *in situ* small angle neutron scattering study of expanded graphite under a uniaxial stress

Carbon **57**, 460-469 (2013)

Bourgault D., Porcar L., Bruyère C., Jacquet P., Courtois P. Uniaxial pressure setup for piezoresistance and magnetoresistance measurements in Heusler materials

Review of Scientific Instruments **84**, 013905-1-013905-5 (2013)

Braga D.F.O., Coules H.E., Pirling T., Richter-Trummer V., Colegrove P., de Castro P.M.S.T.

Assessment of residual stress of welded structural steel plates with or without post weld rolling using the contour method and neutron diffraction

Journal of Materials Processing Technology **213**, 2323-2328 (2013)

Bruno G., Kachanov M. Porous microcracked ceramics under compression:

Micromechanical model of non-linear behavior

Journal of the European Ceramic Society **33**, 2073-2085 (2013)

Carradó A., Brokmeir H.G., Pirling T., Wimpory R.C., Schell N., Palkowski H.

Development of residual stresses and texture in drawn copper tubes

Advanced Engineering Materials **15**, 469-475 (2013)

Collins D.M., Yan L., Marquis E.A., Connor L.D., Ciardiello J.J., Evans A.D., Stone H.J.

Lattice misfit during ageing of a polycrystalline nickel-base superalloy

Acta Materialia **61**, 7791-7804 (2013)

Craco L., Laad M.S., Leoni S., de Arruda A.S. Kondo-like origin of resistivity anisotropy in graphite

Physical Review B **87**, 155109-1-155109-7 (2013)

de Pedro I., García-Saiz A., González J., Ruiz de Larramendi I., Rojo T., Afonso C.A.M., Simeonov S.P., Waerenborgh J.C., Blanco J.A., Ramajo B., Fernandez J. Rodríguez Magnetic ionic plastic crystal: Choline[FeCl_4]

Physical Chemistry Chemical Physics **15**, 12724-12733 (2013)

Decreus B., Deschamps A., De Geuser F., Donnadieu P., Sigli C., Weyland M.

The influence of Cu/Li ratio on precipitation in Al-Cu-Li-x alloys

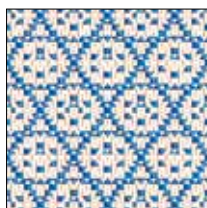
Acta Materialia **61**, 2207-2218 (2013)

Díaz-Paniagua C., Urbina A., García Sakai V., Seydel T., Abad J., Padilla J., García-Valverde R., Espinosa N., Gomez-Escalonilla M.J., Langa F., Batallán F. Molecular dynamics of solutions of poly-3-octyl-thiophene and functionalised single-wall nanotubes studied by neutron scattering

Chemical Physics **427**, 129-141 (2013)

Galan I., Andrade C., Castellote M. Natural and accelerated CO_2 binding kinetics in cement paste at different relative humidities

Cement and Concrete Research **49**, 21-28 (2013)



Gatta G.D., Merlini M., Valdrè G., Liermann H.P., Nénert G., Rothkirch A., Kahlenberg V., Pavese A. On the crystal structure and compressional behavior of talc: A mineral of interest in petrology and material science

Physics and Chemistry of Minerals **40**, 145-156 (2013)

Gloaguen D., Oum G., Legrand V., Fajoui J., Branchu S. Experimental and theoretical studies of intergranular strain in an alpha titanium alloy during plastic deformation

Acta Materialia **61**, 5779-5790 (2013)

Gómez-Pérez A., Yuste M., Pérez-Flores J.C., Ritter C., Azcondo M.T., Canales-Vázquez J., Galvez-Sanchez M., Boulahya K., García-Alvarado F., Amador U. The role of the $\text{Co}^{2+}/\text{Co}^{3+}$ redox-pair in the properties of $\text{La}_{2-x}\text{Sr}_x\text{CoTiO}_6$ ($0 \leq x \leq 0.5$) perovskites as components for solid oxide fuel cells

Journal of Power Sources **227**, 309-317 (2013)

Goswami S., Bhattacharya D., Iles G.N., Ghosh B., Prytulak A.A., Malard B., Das G.C., Ouladdiaf B., Chatterji T. Anomaly in structural noncentrosymmetry around T_N in bulk and nanoscale BiFeO_3

Powder Diffraction **28**, S94-S105 (2013)

Hall S.A. Characterization of fluid flow in a shear band in porous rock using neutron radiography

Geophysical Research Letters **40**, 2613-2618 (2013)

Hennig C., Weiss S., Banerjee D., Brendler E., Honkimäki V., Cuello G., Ikeda-Ohno A., Scheinost A.C., Zänker H. Solid-state properties and colloidal stability of thorium(IV)-silica nanoparticles

Geochimica et Cosmochimica Acta **103**, 197-212 (2013)

Khassin A.A., Jobic H., Filonenko G.A., Dokuchits E.V., Khasin A.V., Minyukova T.P., Shtertser N.V., Plyasova L.M., Yurieva T.M. Interaction of hydrogen with Cu-Zn mixed oxide model methanol synthesis catalyst

Journal of Molecular Catalysis A: Chemical **373**, 151-160 (2013)

Kumar S., Kundu A., Venkata K.A., Evans A., Truman C.E., Francis J.A., Bhanumurthy K., Bouchard P.J., Dey G.K. Residual stresses in laser welded ASTM A387 Grade 91 steel plates

Materials Science and Engineering: A **575**, 160-168 (2013)

Martinelli A. Symmetry-mode and spontaneous strain analysis of the structural transitions in Fe_{1+y}Te and REFeAsO compounds

Journal of Physics Condensed Matter **25**, 125703-1-125703-9 (2013)

Migliardo F., Magazù S., Gonzalez M.A., Mondelli C. Study of the boson peak and fragility of bioprotectant glass-forming mixtures by neutron scattering

Advances in Materials Science and Engineering **2013**, 128271-1-1282716 (2013)

Mori K., Iwase K., Nishikawa Y., Sugiyama M., Oba Y., Fukunaga T. Small-angle neutron scattering observation of the surface structure of $\text{Ti}_{0.31}\text{Cr}_{0.33}\text{V}_{0.36}$ alloy in hydrogenation

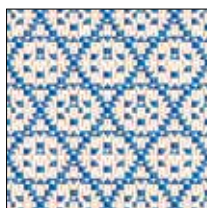
Journal of Alloys and Compounds **580**, S18-S20 (2013)

Palancher H., Bonnin A., Colin C.V., Nassif V., Honkimäki V., Jungwirth R., Ritter C., Champion G., Calzavara Y. UO_2/Al nuclear fuel plate behavior under thermal treatment (425-550°C)

Powder Diffraction **28**, S371-S393 (2013)

Penttilä P.A., Várnai A., Fernández M., Kontro I., Liljeström V., Lindner P., Siika-aho M., Viikari L., Serimaa R. Small-angle scattering study of structural changes in the microfibril network of nanocellulose during enzymatic hydrolysis

Cellulose **20**, 1031-1040 (2013)



Pérez-Flores J.C., Pérez-Coll D., García-Martín S., Ritter C., Mather G.C., Canales-Vázquez J., Gálvez-Sánchez M., García-Alvarado F., Amador U. A- and B-site ordering in the A-cation-deficient perovskite series $\text{La}_{2-x}\text{NiTiO}_{6-\delta}$ ($0 \leq x < 0.20$) and evaluation as potential cathodes for solid oxide fuel cells
Chemistry of Materials **25**, 2484-2494 (2013)

Pierret S., Etter T., Evans A., Van Swygenhoven H. Origin of localized rafting in Ni-based single crystal turbine blades before service and its influence on the mechanical properties
Acta Materialia **61**, 1478-1488 (2013)

Prades M., Maso N., Beltran H., Cordoncillo E., West A.R. Synthesis, structural characterization, and electrical properties of new oxygen-deficient tetragonal tungsten bronzes $\text{Ba}_2\text{NdTi}_{2+x}\text{Nb}_{3-x}\text{O}_{15-x/2}$
Inorganic Chemistry **52**, 1729-1736 (2013)

Recarte V., Pérez-Landazábal J.I., Sánchez-vAlarcos V., Cesari E., Jiménez-Ruiz M., Schmalzl K., Chernenko V.A. Direct evidence of the magnetoelastic interaction in Ni_2MnGa magnetic shape memory system
Applied Physics Letters **102**, 201906-1-201906-4 (2013)

Saerbeck T., Cortie D.L., Brück S., Bertinshaw J., Holt S.A., Nelson A., James M., Lee W.T., Klose F. Time-of-flight polarized neutron reflectometry on PLATYPUS: Status and future developments
Physics Procedia **42**, 213-217 (2013)

Sathiyam M., Ramesha K., Rouse G., Foix D., Gonbeau D., Prakash A.S., Doublet M.L., Hemalatha K., Tarascon J.M. High performance $\text{Li}_2\text{Ru}_{1-y}\text{Mn}_y\text{O}_3$ ($0.2 \leq y \leq 0.8$) cathode materials for rechargeable lithium-ion batteries: Their understanding
Chemistry of Materials **25**, 1121-1131 (2013)

Sawada D., Nishiyama Y., Petridis L., Parthasarathi R., Gnanakaran S., Forsyth V.T., Wada M., Langan P. Structure and dynamics of a complex of cellulose with EDA: insights into the action of amines on cellulose
Cellulose **20**, 1563-1571 (2013)

Sánchez-Alarcos V., Pérez-Landazábal J.I., Recarte V., Lucia I., Velez J., Rodríguez-Velamazán J.A. Effect of high-temperature quenching on the magnetostructural transformations and the long-range atomic order of Ni-Mn-Sn and Ni-Mn-Sb metamagnetic shape memory alloys
Acta Materialia **61**, 4676-4682 (2013)

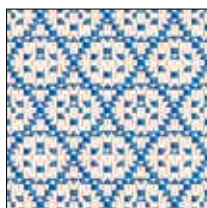
Sigaev V.N., Golubev N.V., Ignat'eva E.S., Champagnon B., Vouagner D., Nardou E., Lorenzi R., Paleari A. Native amorphous nanoheterogeneity in gallium germanosilicates as a tool for driving Ga_2O_3 nanocrystal formation in glass for optical devices
Nanoscale **5**, 299-306 (2013)

Silva N.J.O., Karmaoui M., Amaral V.S., Puente-Orench I., Campo J., da Silva I., Ibarra A., Bustamante R., Millán A., Palacio F. Shell pressure on the core of $\text{MnO}/\text{Mn}_3\text{O}_4$ core/shell nanoparticles
Physical Review B **87**, 224429-1-224429-8 (2013)

Taglieri G., Mondelli C., Daniele V., Pusceddu E., Trapananti A. Synthesis and X-ray diffraction analyses of calcium hydroxide nanoparticles in aqueous suspension
Advances in Materials Physics and Chemistry **3**, 108-112 (2013)

Wagner A., Bergner F., Ulbricht A., Dewhurst C.D. Small-angle neutron scattering of low-Cu RPV steels neutron-irradiated at 255°C and post-irradiation annealed at 290°C
Journal of Nuclear Materials **441**, 487-492 (2013)

MATERIALS SCIENCE AND ENGINEERING



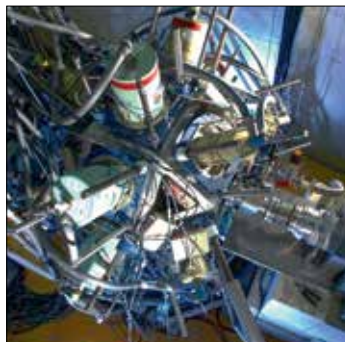
Wu E., Sun G., Chen B., Pirling T., Hughes D.J., Wang S., Zhang J. A neutron diffraction study of lattice distortion, mismatch and misorientation in a single-crystal superalloy after different heat treatments

Acta Materialia **61**, 2308-2319 (2013)

Coules H.E., Cozzolino L.D., Colegrove P., Ganguly S., Wen S.W., Pirling T. Neutron diffraction analysis of complete residual stress tensors in conventional and rolled gas metal arc welds

Experimental Mechanics **53**, 195-204 (2012)

NUCLEAR AND PARTICLE PHYSICS



Amouroux C., Panebianco S., Bidaud A., Capellan N., Chabod S., Faust H., Kessedjian G., Köster U., Letourneau A., Martin F., Materna T., Sage C., Serot O. Measurement of mass yields from the $^{241}\text{Am}(2n_{th},f)$ reaction at the Lohengrin spectrometer
EPJ Web of Conferences **42**, 01006-p1-01006-p5 (2013)

Andreyev A.N., Liberati V., Antalic S., Ackermann D., Barzakh A., Bree N., Cocolios T.E., Diriken J., Elseviers J., Fedorov D., Fedosseev V.N., Fink D., Franchoo S., Heinz S., Hesberger F.P., Hofmann S., Huyse M., Ivanov O., Khuyagbaatar J., Kindler B., Köster U., Lane J.F.W., Lommel B., Mann R., Marsh B., Molkanov P., Nishio K., Page R.D., Patronis N., Pauwels D., Radulov D., Saro Š., Seliverstov M., Sjödin M., Tsekhanovich I., Van den Bergh P., Van Duppen P., Venhart M., Veselsky M. α -decay spectroscopy of the chain $^{179}\text{Tl}^g \rightarrow ^{175}\text{Au}^g \rightarrow ^{171}\text{Ir}^g \rightarrow ^{167}\text{Re}^m$
Physical Review C **87**, 054311-1-054311-8 (2013)

Arzumanov S.S., Bondarenko L.N., Geltenbort P.V., Morozov V.I., Nesvizhevsky V.V., Panin Y.N., Strepetov A.S., Chernyavskii S.M., Chuvilin D.Y. Flexible polyvinyl chloride tubes for transporting low-energy neutrons and their possible applications
Atomic Energy **113**, 351-356 (2013)

von Ballmoos P. Gamma-ray optics for high-energy astrophysics
Nuclear Instruments and Methods in Physics Research B **309**, 244-248 (2013)

Camattari R., Guidi V., Bellucci V., Neri I., Frontera F., Jentschel M. Self-standing quasi-mosaic crystals for focusing hard X-rays
Review of Scientific Instruments **84**, 053110-1-053110-4 (2013)

Chupp T.E., Cooper R.L., Coulter K.P., Freedman S.J., Fujikawa B.K., Jones G.L., Garcia A., Mumm H.P., Nico J.S., Thompson A.K., Trull C., Wiefeldt F.E., Wilkerson J.F. Time reversal and the neutron - Results of the emiT II experiment
Hyperfine Interactions **214**, 97-104 (2013)

Czerwiński M., Rząca-Urban T., Sieja K., Sliwinska H., Urban W., Smith A.G., Smith J.F., Simpson G.S., Ahmad I., Greene J.P., Materna T. Yrast excitations in the neutron-rich $N=52$ isotones
Physical Review C **88**, 044314-1-044314-13 (2013)

Dufour G., Gérardin A., Guérout R., Lambrecht A., Nesvizhevsky V.V., Reynaud S., Voronin A.Y. Quantum reflection of antihydrogen from the Casimir potential above matter slabs
Physical Review A **87**, 012901-1-012901-7 (2013)

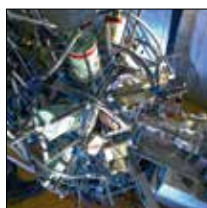
Dufour G., Guérout R., Lambrecht A., Nesvizhevsky V.V., Reynaud S., Voronin A.Y. Quantum reflection of antihydrogen from nanoporous media
Physical Review A **87**, 022506-1-022506-5 (2013)

Dwyer D.A., Heeger K.M., Littlejohn B.R., Vogel P. Search for sterile neutrinos with a radioactive source at Daya Bay
Physical Review D **87**, 093002-1-093002-10 (2013)

Elseviers J., Andreyev A.N., Huyse M., Van Duppen P., Antalic S., Barzakh A., Bree N., Cocolios T.E., Comas V.F., Diriken J., Fedorov D., Fedosseev V.N., Franchoo S., Ghys L., Heredia J.A., Ivanov O., Köster U., Marsh B.A., Nishio K., Page R.D., Patronis N., Seliverstov M.D., Tsekhanovich I., Van den Bergh P., van de Walle J., Venhart M., Vermote S., Veselsky M., Wagemans C. β -delayed fission of ^{180}Tl
Physical Review C **88**, 044321-1-044321-13 (2013)

Faust H., Kessedjian G., Sage C., Koester U., Chebboubi A. Evaluation of excitation energy and spin in fission fragments using the statistical model, and the FIPPS project
EPJ Web of Conferences **42**, 06004-1-06004-5 (2013)

NUCLEAR AND PARTICLE PHYSICS



Frontera F., Virgili E., Valsan V., Liccardo V., Carassiti V., Caroli E., Cassese F., Ferrari C., Guidi V., Mottini S., Pecora M., Negri B., Recanatani L., Amati L., Auricchio N., Bassani L., Campana R., Farinelli R., Guidorzi C., Labanti C., Landi R., Malizia A., Orlandini M., Rosati P., Sguera V., Stephen J., Titarchuk L. Scientific prospects in soft gamma-ray astronomy enabled by the LAUE project
Proceedings SPIE **8861**, 886106-1-886106-17 (2013)

Gaffiot J. Reactor experiments to test sterile neutrinos
Nuclear Physics B **237-238**, 326-328 (2013)

Geltenbort P. Cool things to do with neutrons
Physics World **26**, 28-32 (2013)

Kessedjian G., Chebboubi A., Faust H., Köster U., Materna T., Sage C., Serot O. Development of a Gas Filled Magnet spectrometer coupled with the Lohengrin spectrometer for fission study
EPJ Web of Conferences **42**, 01007-1-01007-4 (2013)

Kitaguchi M., Arimoto Y., Geltenbort P., Imajo S., Iwashita Y., Seki Y., Shimizu H.M., Yoshioka T. Accelerator/decelerator of slow neutrons
 In: "LINAC2012: 26th International Linear Accelerator Conference" 133-137 (2013)

Liberati V., Andreyev A.N., Antalic S., Barzakh A., Cocolios T.E., Elseviers J., Fedorov D., Fedoseev V.N., Huyse M., Joss D.T., Kalaninova Z., Köster U., Lane J.F.W., Marsh B., Mengoni D., Molkanov P., Nishio K., Page R.D., Patronis N., Pauwels D., Radulov D., Seliverstov M., Sjodin M., Tsekhanovich I., Van den Bergh P., Van Duppen P., Venhart M., Veselsky M. β -delayed fission and α decay of ^{178}Tl
Physical Review C **88**, 044322-1-044322-10 (2013)

Matarranz J., Tsekhanovich I., Smith A.G., Dare J.A., Murray L., Pollitt A.J., Soldner T., Köster U., Biswas D.C. A multiparameter nuclear-fission experiment: Can all be obtained at once?
Physics Procedia **47**, 76-81 (2013)

Mendenhall M.P., Pattie R.W., Bagdasarova Y., Berguno D.B., Broussard L.J., Carr R., Currie S., Ding X., Filippone B.W., Garcia A., Geltenbort P., Hickerson K.P., Hoagland J., Holley A.T., Hong R., Ito T.M., Knecht A., Liu C.Y., Liu J.L., Makela M., Mammei R.R., Martin J.W., Melconian D., Moore S.D., Morris C.L., Pérez Galván A., Picker R., Pitt M.L., Plaster B., Ramsey J.C., Rios R., Saunders A., Seestrom S.J., Sharapov E.I., Sondheim W.E., Tatar E., Vogelaar R.B., VornDick B., Wrede C., Young A.R., Zeck B.A. Precision measurement of the neutron β -decay asymmetry
Physical Review C **87**, 032501-1-032501-6 (2013)

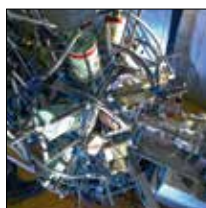
Mund D., Märkisch B., Deissenroth M., Krempel J., Schumann M., Abele H., Petoukhov A., Soldner T. Determination of the weak axial vector coupling $\lambda = g_A/g_V$ from a measurement of the β -asymmetry parameter A in neutron beta decay
Physical Review Letters **110**, 172502-1-172502-5 (2013)

Nesvizhevsky V. Whispering gallery states of neutrons and anti-hydrogen atoms and their applications to fundamental and surface physics
Proceedings SPIE **8600**, 86001C-1-86001C-6 (2013)

Nesvizhevsky V.V., Voronin A.Y., Lambrecht A., Reynaud S., Lychagin E.V., Muzychka A.Y., Strelkov A.V. Quantum levitation of nanoparticles seen with ultracold neutrons
Crystallography Reports **58**, 743-748 (2013)

Olaizola B., Fraile L.M., Mach H., Aprahamian A., Briz J.A., Cal-Gonzalez J., Ghița D., Köster U., Kurcewicz W., Leshner S.R., Pauwels D., Picado E., Poves A., Radulov D., Simpson G.S., Udías J.M. β^- decay of ^{65}Mn to ^{65}Fe
Physical Review C **88**, 044306-1-044306-17 (2013)

NUCLEAR AND PARTICLE PHYSICS



Olaizola B., Fraile L.M., Mach H., Briz J.A., Cal J., Ghita D., Köster U., Kurcewicz W., Leshner S., Pauwels D., Picado E., Radulov D., Simpson G., Udías J.M. β^- decay of ^{65}Mn to ^{65}Fe
AIP Conference Proceedings **1541**, 181-182 (2013)

Paziy V., Mach H., Fraile L.M., Aprahamian A., Bernards C., Briz J.A., Bucher B., Chiara C.J., Dlouhy Z., Gheorghe I., Ghita D., Hoff P., Köster U., Kurcewicz W., Lica R., Marginean N., Marginean R., Olaizola B., Régis J.M., Rudigier M., Sava T., Simpson G., Stanoiu M., Stroe L., Udias J.M., Walters W.B. Structure of 81Ga populated from the β^- decay of 81Zn
AIP Conference Proceedings **1541**, 185-186 (2013)

Piegsa F.M. New concept for a neutron electric dipole moment search using a pulsed beam
Physical Review C **88**, 045502-1-045502-5 (2013)

Pokotilovski Y.N. Potential of the neutron Lloyd's mirror interferometer for the search for new interactions
Journal of Experimental and Theoretical Physics **116**, 609-619 (2013)

Radulov D., Chiara C.J., Darby I.G., De Witte H., Diriken J., Fedorov D.V., Fedosseev V.N., Fraile L.M., Huyse M., Köster U., Marsh B.A., Pauwels D., Popescu L., Seliverstov M.D., Sjödin A.M., Van den Bergh P., Van Duppen P., Venhart M., Walters W.B., Wimmer K.
 β^- decay of ^{61}Mn to levels in ^{61}Fe
Physical Review C **88**, 014307-1-014307-11 (2013)

Régis J.M., Mach H., Simpson G.S., Jolie J., Pascovici G., Saed-Samii N., Warr N., Bruce A., Degenkolb J., Fraile L.M., Fransen C., Ghita D.G., Kisyov S., Koester U., Korgul A., Lalkovski S., Marginean N., Mutti P., Olaizola B., Podolyak Z., Regan P.H., Roberts O.J., Rudigier M., Stroe L., Urban W., Wilmsen D. The generalized centroid difference method for picosecond sensitive determination of lifetimes of nuclear excited states using large fast-timing arrays
Nuclear Instruments and Methods in Physics Research A **726**, 191-202 (2013)

Rudigier M., Simpson G.S., Daugas J.M., Blazhev A., Fransen C., Gey G., Hackstein M., Jolie J., Köster U., Malkiewicz T., Materna T., Pfeiffer M., Ramdhane M., Régis J.M., Rother W., Thomas T., Warr N., Wilmsen D., Le Bloas J., Pillet N. Delayed γ -ray and conversion-electron spectroscopy of $A=97$ fission fragments
Physical Review C **87**, 064317-1-064317-10 (2013)

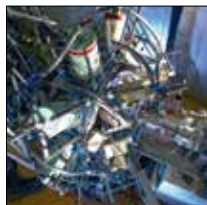
Rzȃca-Urban T., Urban W., Smith A.G., Ahmad I., Syntfeld-Kazuch A. Unexpected $5/2^-$ spin of the ground state in ^{147}Ba : No octupole deformation in ground states of odd- A Ba isotopes
Physical Review C **87**, 031305-1-031305-5 (2013)

Sauvage J., Roussi re B., Genevey J., Franchoo S., Andreyev A.N., Barr  N., Ben Braham A., Bourgeois C., Clavelin J.F., De Witte H., Fedorov D.V., Fedoseyev V.N., Fraile L.M., Grave X., Huber G., Huyse M., Kilcher P., K ster U., Kunz P., Leshner S.R., Marsh B.A., Mukha I., Oms J., Porquet M.G., Seliverstov M., Stefanescu I., Van de Vel K., Van Duppen P., Volkov Y.M., Wojtasiewicz A. Decay of ^{185}Tl , $^{185\text{m}+\text{g}}\text{Hg}$, $^{189\text{m}+\text{g}}\text{Pb}$ and energy location of the $13/2^+$ isomeric states in ^{185}Hg , ^{189}Pb , ^{193}Po and ^{197}Rn
European Physical Journal A **49**, 109-1-109-17 (2013)

Schulze R., Szentmikl si L., Kudejova P., Canella L., Kis Z., Belgya T., Jolie J., Ebert M., Materna T., Biro K.T., Hajnal Z. The ANCIENT CHARM project at FRM II: Three-dimensional elemental mapping by prompt gamma activation imaging and neutron tomography
Journal of Analytical Atomic Spectrometry **28**, 1508-1512 (2013)

Seliverstov M.D., Cocolios T.E., Dexters W., Andreyev A.N., Antalic S., Barzakh A.E., Bastin B., B scher J., Darby I.G., Fedorov D.V., Fedoseyev V.N., Flanagan K.T., Franchoo S., Fritzsche S., Huber G., Huyse M., Keupers M., K ster U., Kudryavtsev Yu., Marsh B.A., Molkanov P.L., Page R.D., S j din A.M., Stefan I., van de Walle J., Van Duppen P., Venhart M., Zemlyanov S.G. Charge radii of odd- A $^{191-211}\text{Po}$ isotopes
Physics Letters B **719**, 362-366 (2013)

NUCLEAR AND PARTICLE PHYSICS



Serebrov A.P., Geltenbort P., Zherebtsov O.M., Sbitnev S.V., Varlamov V.E., Vassiljev A.V., Lasakov M.S., Krasnosheikova I.A., Ivanov S.N. Measurement of the total cross sections of ultracold neutrons with noble gases and search for long-range forces
JETP Letters **97**, 676-680 (2013)

Sharapov E.I., Morris C.L., Makela M., Saunders A., Adamek E.R., Bagdasarova Y., Broussard L.J., Cude-Woods C.B., Fellers D.E., Geltenbort P., Hasan S.I., Hickerson K.P., Hogan G., Holley A.T., Liu C.Y., Mendenhall M.P., Ortiz J., Pattie R.W., Phillips D.G., Ramsey J., Salvat D.J., Seestrom S.J., Shaw E., Sjue S.K.L., Sondheim W.E., VornDick B., Wang Z., Womack T.L., Young A.R., Zeck B.A. Measurements of ultracold neutron upscattering and absorption in polyethylene and vanadium
Physical Review C **88**, 037601-1-037601-4 (2013)

Sharapov E.I., Morris C.L., Makela M., Saunders A., Adamek E.R., Broussard L.J., Cude-Woods C.B., Fellers D.E., Geltenbort P., Hartl M., Hasan S.I., Hickerson K.P., Hogan G., Holley A.T., Lavelle C.M., Liu C.Y., Mendenhall M.P., Ortiz J., Pattie R.W., Phillips D.G., Ramsey J., Salvat D.J., Seestrom S.J., Shaw E., Sjue S., Sondheim W.E., VornDick B., Wang Z., Womack T.L., Young A.R., Zeck B.A. Upscattering of ultracold neutrons from the polymer [C₆H₁₂]
Physical Review C **88**, 064605-1-064605-4 (2013)

Urban W., Jentschel M., Casten R.F., Jolie J., Bernards C., Maerkisch B., Materna T., Mutti P., Prochniak L., Rząca-Urban T., Simpson G.S., Werner V., Ahmed S. O₂ band in ¹⁰²Ru and the evolution of nuclear deformation in Ru isotopes
Physical Review C **87**, 031304-1-031304-5 (2013)

Urban W., Jentschel M., Märkisch B., Materna T., Bernards C., Drescher C., Fransen C., Jolie J., Köster U., Mutti P., Rząca-Urban T., Simpson G.S. New instrumentation for precise (n,γ) measurements at ILL Grenoble
Journal of Instrumentation **8**, P03014-1-P03014-20 (2013)

Cocolios T.E., Andreyev A.N., Antalic S., Barzakh A.E., Bastin B., Büscher J., Darby I.G., Dexters W., Fedorov D.V., Fedosseev 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., Seliverstov M.D., Sjödin A.M., Stefan I., van de Walle J., Van Duppen P., Venhart M., Zemlyanov S.G. Early onset of deformation in the neutron-deficient polonium isotopes
Journal of Physics : Conference Series **381**, 012072-1-012072-6 (2012)

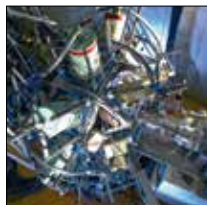
Habs D., Günther M.M., Jentschel M., Thirolf P.G. Nuclear photonics
AIP Conference Proceedings **1462**, 177-184 (2012)

Lică R., Mărginean N., Ghiță D. G., Mach H., Fraile L.M., Aprahamian A., Bernards C., Briz J.A., Bucher B., Chiara C.J., Dlouhý Z., Gheorghe I., Hoff P., Jolie J., Köster U., Kurcewicz W., Mărginean R., Olaizola B., Pazių V., Régis J.M., Rudigier M., Sava T., Simpson G., Stănoiu M., Stroe L., Walters W.B. Low-lying isomeric state in ⁸⁰Ga from the β⁻ decay of ⁸⁰Zn
AIP Conference Proceedings **1491**, 97-100 (2012)

Mazzocchi C., Janas Z., Baczyk P., Fynbo H.O.U., Köster U. Precision half-life measurement of ⁷Be implanted in different materials
Acta Physica Polonica B **43**, 279-284 (2012)

Müller C., Zhernosekov K., Köster U., Johnston K., Dorrer H., Hohn A., van der Walt N. T., Türler A., Schibli R. A unique matched quadruplet of terbium radioisotopes for PET and SPECT and for α- and β⁻ radionuclide therapy: An *in vivo* proof-of-concept study with a new receptor-targeted folate derivative
Journal of Nuclear Medicine **53**, 1951-1959 (2012)

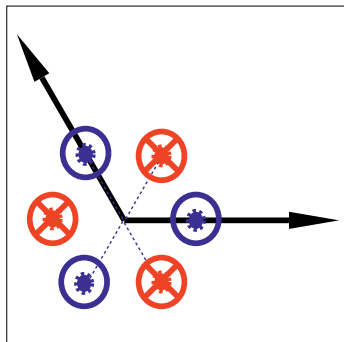
NUCLEAR AND PARTICLE PHYSICS



Pauwels D., Radulov D., Walters W.B., Darby I.G., De Witte H., Diriken J., Fedorov D.V., Fedosseev V.N., Fraile L.M., Huyse M., Köster U., Marsh B.A., Popescu L., Seliverstov M.D., Sjödin A.M., Van den Bergh P., van de Walle J., Van Duppen P., Venhart M., Wimmer K. Gamow-Teller decay population of ^{64}Ni levels in the decay of 1^{+64}Co *Physical Review C* **86**, 064318-1-064318-6 (2012)

Thirolf P.G., Habs D., Filipescu D., Gernhäuser R., Günther M.M., Jentschel M., Marginean N., Pietralla N. Nuclear photonics at ultra-high counting rates and higher multipole excitations *AIP Conference Proceedings* **1462**, 214-217 (2012)

THEORY



Bicout D.J., Kats E.I., Petukhov A.K., Whitney R.S. Size independence of statistics for boundary collisions of random walks and its implications for spin-polarized gases
Physical Review Letters **110**, 010602-1-010602-5 (2013)

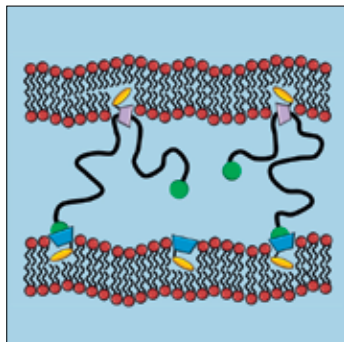
Devishvili A., Zhernenkov K., Dennison A.J.C., Toperverg B.P., Wolff M., Hjörvarsson B., Zabel H. SuperADAM: Upgraded polarized neutron reflectometer at the Institut Laue-Langevin
Review of Scientific Instruments **84**, 025112-1-025112-8 (2013)

Erdösi D., Huber M., Hiesmayr B.C., Hasegawa Y. Proving the generation of genuine multipartite entanglement in a single-neutron interferometer experiment
New Journal of Physics **15**, 023033-1-023033-10 (2013)

Nozières P. Time crystals: Can diamagnetic currents drive a charge density wave into rotation?
Europhysics Letters **103**, 57008-1-57008-3 (2013)

Sordi G., Sémon P., Haule K., Tremblay A.M.S. *c*-axis resistivity, pseudogap, superconductivity, and Widom line in doped Mott insulators
Physical Review B **87**, 041101-1-041101-5 (2013)

Gu B., Ziman T., Maekawa S. Theory of the spin Hall effect, and its inverse, in a ferromagnetic metal near the Curie temperature
Physical Review B **86**, 241303-1-241303-5 (2012)



Ábraham Á., Campbell R.A., Varga I. New method to predict the surface tension of complex synthetic and biological polyelectrolyte/surfactant mixtures
Langmuir **29**, 11554-11559 (2013)

Adelsberger J., Grillo I., Kulkarni A., Sharp M., Bivigou-Koumba A.M., Laschewsky A., Müller-Buschbaum P., Papadakis C.M. Kinetics of aggregation in micellar solutions of thermoresponsive triblock copolymers - Influence of concentration, start and target temperatures
Soft Matter **9**, 1685-1699 (2013)

Angus-Smyth A., Bain C.D., Varga I., Campbell R.A. Effects of bulk aggregation on PEI-SDS monolayers at the dynamic air-liquid interface: Depletion due to precipitation versus enrichment by a convection/spreading mechanism
Soft Matter **9**, 6103-6117 (2013)

Baeza G.P., Genix A.C., Degrandcourt C., Petitjean L., Gummel J., Schweins R., Couty M., Oberdisse J. Effect of grafting on rheology and structure of a simplified industrial nanocomposite silica/SBR
Macromolecules **46**, 6621-6633 (2013)

Bauer M., Bernhardt M., Charitat T., Kékicheff P., Fajolles C., Fragneto G., Marques C.M., Daillant J. Membrane insertion of sliding anchored polymers
Soft Matter **9**, 1700-1710 (2013)

Berts I., Fragneto G., Hilborn J., Rennie A.R. Tuning the density profile of surface-grafted hyaluronan and the effect of counter-ions
European Physical Journal E **36**, 70-1-70-10 (2013)

Berts I., Gerelli Y., Hilborn J., Rennie A.R. Structure of polymer and particle aggregates in hydrogel composites
Journal of Polymer Science B **51**, 421-429 (2013)

Bode F., da Silva M.A., Smith P., Lorenz C.D., McCullen S., Stevens M.M., Dreiss C.A. Hybrid gelation processes in enzymatically gelled gelatin: Impact on nanostructure, macroscopic properties and cellular response
Soft Matter **9**, 6986-6999 (2013)

Bradbury R., Penfold J., Thomas R.K., Tucker I.M., Petkov J.T., Jones C. Adsorption of model perfumes at the air-solution interface by coadsorption with an anionic surfactant
Langmuir **29**, 3361-3369 (2013)

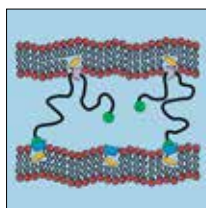
Bradbury R., Penfold J., Thomas R.K., Tucker I.M., Petkov J.T., Jones C., Grillo I. Impact of model perfume molecules on the self-assembly of anionic surfactant sodium dodecyl δ -benzene sulfonate
Langmuir **29**, 3234-3245 (2013)

Brouette N., Fragneto G., Cousin F., Moulin M., Haertlein M., Sferazza M. A neutron reflection study of adsorbed deuterated myoglobin layers on hydrophobic surfaces
Journal of Colloid and Interface Science **390**, 114-120 (2013)

Brown P., Bushmelev A., Butts C.P., Eloi J.C., Grillo I., Baker P.J., Schmidt A.M., Eastoe J. Properties of new magnetic surfactants
Langmuir **29**, 3246-3251 (2013)

Brown P., Butts C.P., Eastoe J., Grillo I., James C., Khan A. New cationic surfactants with ionic liquid properties
Journal of Colloid and Interface Science **395**, 185-189 (2013)

Brüning B., Stiehle R., Falus P., Farago B. Influence of charge density on bilayer bending rigidity in lipid vesicles: A combined dynamic light scattering and neutron spin-echo study
European Physical Journal E **36**, 77-1-77-8 (2013)



Campana M., Webster J.R.P., Gutberlet T., Wojciechowski K., Zorbakhsh A. Surfactant mixtures at the oil-water interface

Journal of Colloid and Interface Science **398**, 126-133 (2013)

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., Grillo I. Influence of calcium ions on rhamnolipid and rhamnolipid/anionic surfactant adsorption and self-assembly

Langmuir **29**, 3912-3923 (2013)

Chiappisi L., Hoffmann I., Gradzielski M. Complexes of oppositely charged polyelectrolytes and surfactants - Recent developments in the field of biologically derived polyelectrolytes

Soft Matter **9**, 3896-3909 (2013)

Colmenero J., Arbe A. Recent progress on polymer dynamics by neutron scattering: From simple polymers to complex materials

Journal of Polymer Science B **51**, 87-113 (2013)

Cooper C.L., Cosgrove T., van Duijneveldt J.S., Murray M., Prescott S.W. Competition between polymers for adsorption on silica: A solvent relaxation NMR and small-angle neutron scattering study

Langmuir **29**, 12670-12678 (2013)

da Silva M.A., Weinzaepfel E., Afifi H., Eriksson J., Grillo I., Valero M., Dreiss C.A. Tuning the viscoelasticity of nonionic wormlike micelles with β -cyclodextrin derivatives: A highly discriminative process

Langmuir **29**, 7697-7708 (2013)

Dabkowska A.P., Talbot J.P., Cavalcanti L., Webster J.R.P., Nelson A., Barlow D.J., Fragneto G., Lawrence M.J. Calcium mediated interaction of calf-thymus DNA with monolayers of distearoylphosphatidylcholine: A neutron and X-ray reflectivity study

Soft Matter **9**, 7095-7105 (2013)

de Vos W.M., Mears L.L.E., Richardson R.M., Cosgrove T., Barker R., Prescott S.W. Nonuniform hydration and odd-even effects in polyelectrolyte multilayers under a confining pressure

Macromolecules **46**, 1027-1034 (2013)

Diat O., Klossek M.L., Touraud D., Demé B., Grillo I., Kunz W., Zemb T. Octanol-rich and water-rich domains in dynamic equilibrium in the pre-ouzo region of ternary systems containing a hydrotrope

Journal of Applied Crystallography **46**, 1665-1669 (2013)

Efimov V.B., Izotov A.N., Mezhev-Deglin L.P. Helium impurity nanocluster gels in superfluid helium

Bulletin of the Russian Academy of Sciences: Physics **77**, 48-52 (2013)

Fotiadou S., Karageorgaki C., Chrissopoulou K., Karatasos K., Tanis I., Tragoudaras D., Frick B., Anastasiadis S.H. Structure and dynamics of hyperbranched polymer/layered silicate nanocomposites

Macromolecules **46**, 2842-2855 (2013)

Fragneto G., Halperin A., Klösgen B., Sferazza M. Neutron reflectivity of supported membranes incorporating terminally anchored polymers: Protrusions vs. blisters

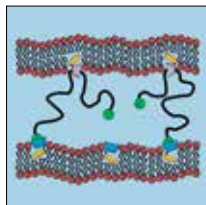
European Physical Journal E **36**, 1-3 (2013)

Glomann T., Hamm A., Allgaier J., Hübner E.G., Radulescu A., Farago B., Schneider G.J. A microscopic view on the large scale chain dynamics in nanocomposites with attractive interactions

Soft Matter **9**, 10559-10571 (2013)

Glomann T., Schneider G.J., Allgaier J., Radulescu A., Lohstroh W., Farago B., Richter D. Microscopic dynamics of polyethylene glycol chains interacting with silica nanoparticles

Physical Review Letters **110**, 178001-1-178001-5 (2013)



Gutfreund P., Bäumchen O., Fetzer R., van der Grinten D., Maccarini M., Jacobs K., Zabel H., Wolff M. Solid surface structure affects liquid order at the polystyrene-self-assembled-monolayer interface

Physical Review E **87**, 012306-1-012306-6 (2013)

Halacheva S.S., Penfold J., Thomas R.K., Webster J.R.P. Solution pH and oligoamine molecular weight dependence of the transition from monolayer to multilayer adsorption at the air-water interface from sodium dodecyl sulfate/oligoamine mixtures

Langmuir **29**, 5832-5840 (2013)

Hoepfner M.P., Fogler H.S. Multiscale scattering investigations of asphaltene cluster breakup, nanoaggregate dissociation, and molecular ordering

Langmuir **29**, 15423-15432 (2013)

Hoffmann I., Farago B., Schweins R., Falus P., Sharp M., Gradzielski M. Structure and dynamics of polyelectrolytes in viscous polyelectrolyte-surfactant complexes at the mesoscale

Europhysics Letters **104**, 28001-p1-28001-p6 (2013)

Hopkins Hatzopoulos M., Eastoe J., Dowding P.J., Grillo I. Cylinder to sphere transition in reverse microemulsions: The effect of hydrotropes

Journal of Colloid and Interface Science **392**, 304-310 (2013)

Joksimovic R., Prévost S., Schweins R., Appavou M.S., Gradzielski M. Interactions of silica nanoparticles with poly(ethylene oxide) and poly(acrylic acid): Effect of the polymer molecular weight and of the surface charge

Journal of Colloid and Interface Science **394**, 85-93 (2013)

Kanduč M., Schneck E., Netz R.R. Hydration interaction between phospholipid membranes: Insight into different measurement ensembles from atomistic molecular dynamics simulations

Langmuir **29**, 9126-9137 (2013)

Kumar S., Chinchalikar A.J., Aswal V.K., Schweins R. Tuning of adsorption vs. depletion interaction in nanoparticle-polymer system

AIP Conference Proceedings **1512**, 152-153 (2013)

Lederer A., Burchard W., Khalyavina A., Lindner P., Schweins R. Is the universal law valid for branched polymers?

Angewandte Chemie International Edition **52**, 4659-4663 (2013)

Limouzin-Morel C., Dutertre F., Moussa W., Gaillard C., Iliopoulos I., Bendejacq D., Nicolai T., Chassenieux C. One and two dimensional self-assembly of comb-like amphiphilic copolyelectrolytes in aqueous solution

Soft Matter **9**, 8931-8937 (2013)

Lund R., Willner L., Richter D., Lindner P., Narayanan T. Kinetic pathway of the cylinder-to-sphere transition in block copolymer micelles observed *in situ* by time-resolved neutron and synchrotron scattering

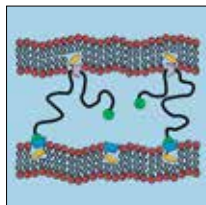
ACS Macro Letters **2**, 1082-1087 (2013)

Mehan S., Chinchalikar A.J., Kumar S., Aswal V.K., Schweins R. Small-angle neutron scattering study of structure and interaction of nanoparticle, protein, and surfactant complexes

Langmuir **29**, 11290-11299 (2013)

Nagy G., Kovács L., Ünneper R., Zsiros O., Almásy L., Rosta L., Timmins P., Peters J., Posselt D., Garab G. Kinetics of structural reorganizations in multilamellar photosynthetic membranes monitored by small-angle neutron scattering

European Physical Journal E **36**, 69-1-69-12 (2013)



Pyckhout-Hintzen W., Westermann S., Wischniewski A., Monkenbusch M., Richter D., Straube E., Farago B., Lindner P. Direct observation of nonaffine tube deformation in strained polymer networks *Physical Review Letters* **110**, 196002-1-196002-5 (2013)

Reinhardt M., Dzubiella J., Trapp M., Gutfreund P., Kreuzer M., Gröschel A., Müller A.H.E., Ballauff M., Steitz R. Fine-tuning the structure of stimuli-responsive polymer films by hydrostatic pressure and temperature *Macromolecules* **46**, 6541-6547 (2013)

Rondelli V., Del Favero E., Motta S., Cantù L., Fragneto G., Brocca P. Neutrons for rafts, rafts for neutrons *European Physical Journal E* **36**, 73-1-73-8 (2013)

Ruocco N., Dahbi L., Driva P., Hadjichristidis N., Allgaier J., Radulescu A., Sharp M., Lindner P., Straube E., Pyckhout-Hintzen W., Richter D. Microscopic relaxation processes in branched-linear polymer blends by rheo-SANS *Macromolecules* **46**, 9122-9133 (2013)

Sanz A., Ezquerro T.A., García-Gutiérrez M.C., Puente-Orench I., Campo J., Nogales A. Localized translational motions in semicrystalline poly(ethylene terephthalate) studied by incoherent quasielastic neutron scattering *European Physical Journal E* **36**, 24-1-24-9 (2013)

Sapstead R.M., Ryder K.S., Fullarton C., Skoda M., Dalgliesh R.M., Watkins E.B., Beebee C., Barker R., Glidle A., Hillman A.R. Nanoscale control of interfacial processes for latent fingerprint enhancement *Faraday Discussions* **164**, 391-410 (2013)

Schiró G. Anharmonic onsets in polypeptides revealed by neutron scattering: Experimental evidences and quantitative description of energy resolution dependence *Biophysical Chemistry* **180-181**, 29-36 (2013)

Schmiele M., Schindler T., Unruh T., Busch S., Morhenn H., Westermann M., Steiniger F., Radulescu A., Lindner P., Schweins R., Boesecke P. Structural characterization of the phospholipid stabilizer layer at the solid-liquid interface of dispersed triglyceride nanocrystals with small-angle X-ray and neutron scattering *Physical Review E* **87**, 062316-1-062316-24 (2013)

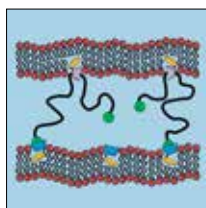
Schneck E., Schollier A., Halperin A., Moulin M., Haertlein M., Sferrazza M., Fragneto G. Neutron reflectometry elucidates density profiles of deuterated proteins adsorbed onto surfaces displaying poly(ethylene glycol) brushes: Evidence for primary adsorption *Langmuir* **29**, 14178-14187 (2013)

Schneider G.J., Nusser K., Neueder S., Brodeck M., Willner L., Farago B., Holderer O., Briels W.J., Richter D. Anomalous chain diffusion in unentangled model polymer nanocomposites *Soft Matter* **9**, 4336-4348 (2013)

Schroeter A., Engelbrecht T., Neubert R.H.H. Influence of short chain ceramides and lipophilic penetration enhancers on the nano-structure of stratum corneum model membranes studied using neutron diffraction *Frontiers of Chemical Science and Engineering* **7**, 29-36 (2013)

Sedlak M., Falus P., Steinhart M., Gummel J., Stepánek P., Filippov S.K. Temperature-induced formation of polymeric nanoparticles: *In situ* SAXS and QENS experiments *Macromolecular Chemistry and Physics* **214**, 2841-2847 (2013)

Serrano-Ruiz D., Alonso-Cristobal P., Laurenti M., Frick B., López-Cabarcos E., Rubio-Retama J. Influence of the inter-chain hydrogen bonds on the thermoresponsive swelling behavior of UCST-like microgels *Polymer* **54**, 4963-4971 (2013)



Shi L., Carn F., Boué F., Mosser G., Buhler E. Control over the electrostatic self-assembly of nanoparticle semiflexible biopolyelectrolyte complexes
Soft Matter **9**, 5004-5015 (2013)

Simon F.X., Nguyen T.T.T., Díaz N., Schmutz M., Demé B., Jestin J., Combet J., Mesini P.J. Self-assembling properties of a series of homologous ester-diamides - from ribbons to nanotubes
Soft Matter **9**, 8483-8493 (2013)

Spruijt E., Leermakers F.A.M., Fokkink R., Schweins R., Van Well A.A., Cohen Stuart M.A., van der Gucht J. Structure and dynamics of polyelectrolyte complex coacervates studied by scattering of neutrons, X-rays, and light
Macromolecules **46**, 4596-4605 (2013)

Stieger M., Lindner P., Richtering W. Small-angle neutron scattering study of shear-induced phase separation in aqueous poly(*N*-isopropylacrylamide) solutions
e-Polymers **2004**, 513-522 (2013)

Tabor R.F., Zaveer M.I., Dagastine R.R., Grillo I., Garvey C.J. Phase behavior, small-angle neutron scattering and rheology of ternary nonionic surfactant-oil-water systems: A comparison of oils
Langmuir **29**, 3575-3582 (2013)

Taheri S.M., Rosenfeldt S., Fischer S., Bösecke P., Narayanan T., Lindner P., Förster S. Shear-induced macroscopic "Siamese" twins in soft colloidal crystals
Soft Matter **9**, 8464-v8475 (2013)

Tatur S., Maccarini M., Barker R., Nelson A., Fragneto G. Effect of functionalized gold nanoparticles on floating lipid bilayers
Langmuir **29**, 6606-6614 (2013)

Thompson K.C., Jones S.H., Rennie A.R., King M.D., Ward A.D., Hughes B.R., Lucas C.O.M., Campbell R.A., Hughes A.V. Degradation and rearrangement of a lung surfactant lipid at the air-water interface during exposure to the pollutant gas ozone
Langmuir **29**, 4594-4602 (2013)

Trapp M., Marion J., Tehei M., Demé B., Gutberlet T., Peters J. High hydrostatic pressure effects investigated by neutron scattering on lipid multilamellar vesicles
Physical Chemistry Chemical Physics **15**, 20951-20956 (2013)

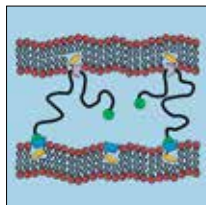
Tse-Ve-Koon K., Tremblay N., Constantin D., Freyssingas E. Structure, thermodynamics and dynamics of the isotropic phase of spherical non-ionic surfactant micelles
Journal of Colloid and Interface Science **393**, 161-173 (2013)

Tung W., Bird V., Composto R.J., Clarke N., Winey K.I. Polymer chain conformations in CNT/PS nanocomposites from small angle neutron scattering
Macromolecules **46**, 5345-5354 (2013)

Valle-Orero J., Garden J.L., Richard J., Wildes A., Peyrard M. Calorimetric study of melted DNA glass
AIP Conference Proceedings **1518**, 766-771 (2013)

Valle-Orero J., Wildes A., Garden J.L., Peyrard M. Purification of A-form DNA fiber samples by the removal of B-form DNA residues
Journal of Physical Chemistry B **117**, 1849-1856 (2013)

Verma G., Kumar S., Schweins R., Aswal V.K., Hassan P.A. Transition from long micelles to flat bilayers driven by release of hydrotropes in mixed micelles
Soft Matter **9**, 4544-4552 (2013)



Vogt K., Siebenbürger M., Clemens D., Rabe C., Lindner P., Russina M., Fromme M., Meizei F., Ballauff M. A new time-of-flight small-angle scattering instrument at the Helmholtz-Zentrum Berlin: V16/VSANS

Journal of Applied Crystallography Accepted (2013)

Wadsäter M., Barker R., Mortensen K., Feidenhans'l R., Cárdenas M. Effect of phospholipid composition and phase on nanodisc films at the solid-liquid interface as studied by neutron reflectivity

Langmuir **29**, 2871-2880 (2013)

Wang X., Lee S.Y., Miller K., Welbourn R., Stocker I., Clarke S., Casford M., Gutfreund P., Skoda M.W.A. Cation bridging studied by specular neutron reflection

Langmuir **29**, 5520-5527 (2013)

Whittell G.R., Gilroy J.B., Grillo I., Manners I., Richardson R.M. The solution phase characterization of poly(ferrocenyldimethylsilane)s by small-angle neutron scattering

Journal of Polymer Science A **51**, 4011-4020 (2013)

Wu B., Liu Y., Li X., Mamontov E., Kolesnikov A.I., Diallo S.O., Do C., Porcar L., Hong K., Smith S.C., Liu L., Smith G.S., Egami T., Chen W.R. Charge-dependent dynamics of a polyelectrolyte dendrimer and its correlation with invasive water

Journal of the American Chemical Society **135**, 5111-5117 (2013)

Yanez Arteta M., Eltes F., Campbell R.A., Nylander T. Interactions of PAMAM dendrimers with SDS at the solid-liquid interface

Langmuir **29**, 5817-5831 (2013)

Zhong Q., Metwalli E., Rawolle M., Kaune G., Bivigou-Koumba A.M., Laschewsky A., Papadakis C.M., Cubitt R., Müller-Buschbaum P. Structure and thermal response of thin thermoresponsive polystyrene-*block*-poly(methoxydiethylene glycol acrylate)-*block*-polystyrene films

Macromolecules **46**, 4069-4080 (2013)

Armstrong C.L., Barrett M., Hiess A., Salditt T., Katsaras J., Shi A.-C., Rheinstädter M.C. Effect of cholesterol on the lateral nanoscale dynamics of fluid membranes

European Biophysics Journal **41**, 901-913 (2012)

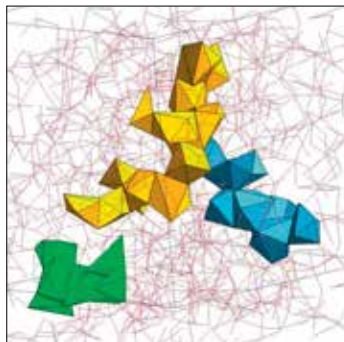
Hemmerle A., Malaquin L., Charitat T., Lecuyer S., Fragneto G., Daillant J. Controlling interactions in supported bilayers from weak electrostatic repulsion to high osmotic pressure

Proceedings of the National Academy of Sciences **109**, 19938-19942 (2012)

Rheinstädter M.C. Lipid membrane dynamics

In "Dynamics of Soft Matter, Neutron Scattering Applications and Techniques" García Sakai V. *et al.* Eds. (2012) pp. 263-286

SPECTROSCOPY IN SOLID STATE PHYSICS AND CHEMISTRY



Agostini G., Grisenti R., Lamberti C., Piovano A., Fornasini P. Thermal effects on Rhodium nanoparticles supported on carbon
Journal of Physics : Conference Series **430**, 012031-1-012031-4 (2013)

Antonov V.E., Ivanov A.S., Kuzovnikov M.A., Tkacz M. Neutron spectroscopy of nickel deuteride
Journal of Alloys and Compounds **580**, S109-S113 (2013)

Auckett J.E., Studer A.J., Pellegrini E., Ollivier J., Johnson M.R., Schober H., Miiller W., Ling C.D. Combined experimental and computational study of oxide ion conduction dynamics in Sr₂Fe₂O₅ brownmillerite
Chemistry of Materials **25**, 3080-3087 (2013)

Bousige C., Rols S., Ollivier J., Schober H., Fouquet P., Simeoni G.G., Agafonov V., Davydov V., Niimi Y., Suenaga K., Kataura H., Launois P. From a one-dimensional crystal to a one-dimensional liquid: A comprehensive dynamical study of C₆₀ peapods
Physical Review B **87**, 195438-1-195438-11 (2013)

Claudio T., Schierner G., Theissmann R., Wiggers H., Schober H., Koza M.M., Hermann R.P. Effects of impurities on the lattice dynamics of nanocrystalline silicon for thermoelectric application
Journal of Materials Science **48**, 2836-2845 (2013)

Euchner H., Yamada T., Schober H., Rols S., Mihalkovic M., Tamura R., Ishimasa T., de Boissieu M. Dynamical flexibility in the periodic Zn₆Sc 1/1-approximant
In "Aperiodic Crystals" Schmid S. *et al.* Eds. (2013, Springer) pp. 253-259

Euchner H., Yamada T., Rols S., Ishimasa T., Kaneko Y., Ollivier J., Schober H., Mihalkovic M., de Boissieu M. Tetrahedron dynamics in the icosahedral quasicrystals i-ZnMgSc and i-ZnAgSc and the cubic 1/1-approximant Zn₆Sc
Journal of Physics Condensed Matter **25**, 115405-1-115405-10 (2013)

Fischer J., Lima J.A., Freire P.T.C., Melo F.E.A., Havenith R.W.A., Filho J.M., Broer R., Eckert J., Bordallo H.N. Molecular flexibility and structural instabilities in crystalline L-methionine
Biophysical Chemistry **180-181**, 76-85 (2013)

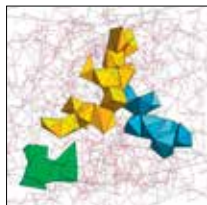
Frick B., Vilčiauskas L., Deen P.P., Lyonnard S. The nanosecond proton dynamics of phosphoric acid - From the solid to the melt - investigated by neutron backscattering
Solid State Ionics **252**, 26-33 (2013)

Gallo E., Bonino F., Swarbrick J.C., Petrenko T., Piovano A., Bordiga S., Gianolio D., Groppo E., Neese F., Lamberti C., Glatzel P. Preference towards five-coordination in Ti silicalite-1 upon molecular adsorption
ChemPhysChem **14**, 79-83 (2013)

Hofmann T., Kumar P., Enderle M., Wallacher D. Growth of highly oriented deuterium crystals in silicon nanochannels
Physical Review Letters **110**, 065505-1-065505-5 (2013)

Horsewill A.J., Goh K., Rols S., Ollivier J., Johnson M.R., Levitt M.H., Carravetta M., Mamone S., Murata Y., Chen J.Y.C., Johnson J.A., Lei X., Turro N.J. Quantum rotation and translation of hydrogen molecules encapsulated inside C₆₀: Temperature dependence of inelastic neutron scattering spectra
Philosophical Transactions of the Royal Society A **371**, 20110627-1-20110627-15 (2013)

Jones A.O.F., Blagden N., McIntyre G.J., Parkin A., Seaton C.C., Thomas L.H., Wilson C.C. Tuning proton disorder in 3,5-dinitrobenzoic acid dimers: The effect of local environment
Crystal Growth & Design **13**, 497-509 (2013)



Kalinin I.V., Kats E.I., Koza M., Lauter V.V., Lauter H., Puchkov A.V. Neutron diffraction study of polycrystalline ^4He in a porous medium
JETP Letters **98**, 233-236 (2013)

Karlsson M. Perspectives of neutron scattering on proton conducting oxides
Dalton Transactions **42**, 317-329 (2013)

Kempa M., Ondrejovic P., Bourges P., Ollivier J., Rols S., Kulda J., Margueron S., Hlinka J. The temperature dependence of the phononic band gap of NaI
Journal of Physics Condensed Matter **25**, 055403-1-055403-4 (2013)

Koza M.M., Adroja D., Takeda N., Henkie Z., Cichorek T. Vibrational dynamics of filled skutterudites $\text{LaT}_4\text{X}_{12}$ ($T = \text{Fe, Ru, Os}$, $X = \text{As, Sb}$)
Journal of the Physical Society of Japan **82**, 114607-1-114607-11 (2013)

Lock N., Christensen M., Wu Y., Peterson V.K., Thomsen M.K., Piltz R.O., Ramirez-Cuesta A.J., McIntyre G.J., Norén K., Kutteh R., Kepert C.J., Kearley G.J., Iversen B.B. Scrutinizing negative thermal expansion in MOF-5 by scattering techniques and *ab initio* calculations
Dalton Transactions **42**, 1996-2007 (2013)

Ma X.B., Zhong W.L., Wang L.Z., Chen Y. X., Cao J. Improved calculation of the energy release in neutron-induced fission
Physical Review C **88**, 014605-1-014605-6 (2013)

Mittal R., Gupta M.K., Chaplot S.L., Zbiri M., Rols S., Schober H., Su Y., Brueckel T., Wolf T. Spin-phonon coupling in $\text{K}_{0.8}\text{Fe}_{1.6}\text{Se}_2$ and KFe_2Se_2 : Inelastic neutron scattering and *ab initio* phonon calculations
Physical Review B **87**, 184502-1-184502-9 (2013)

Myrdal J.S.G., Blanchard D., Sveinbjörnsson D., Vegge T. Li-ion conduction in the LiBH_4 : Lil system from density functional theory calculations and quasi-elastic neutron scattering
Journal of Physical Chemistry C **117**, 9084-9091 (2013)

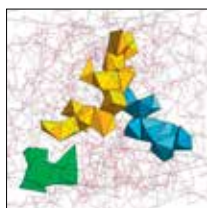
Pajzderska A., Gonzalez M.A., Wąsicki J. Dynamics in molecular and molecular-ionic crystals: A combined experimental and molecular simulation study of reorientational motions in benzene, pyridinium iodide, and pyridinium nitrate
Journal of Chemical Physics **138**, 024508-1-024508-9 (2013)

Pantatosaki E., Jobic H., Kolokolov D.I., Karmakar S., Biniwale R., Papadopoulos G.K. Probing the hydrogen equilibrium and kinetics in zeolite imidazolate frameworks via molecular dynamics and quasi-elastic neutron scattering experiments
Journal of Chemical Physics **138**, 034706-1-034706-10 (2013)

Pozzi C.G., Fantoni A.C., Goeta A.E., de Matos Gomes E., McIntyre G.J., Punte G. On the use of crystal vibrational modes in the estimation of the anisotropic displacement parameters of hydrogen atoms in molecular crystals: *Para*-Nitroaniline as a test case
Chemical Physics **423**, 85-91 (2013)

Remhof A., Züttel A., Ramirez-Cuesta T.A.J., García-Sakai V., Frick B. Hydrogen dynamics in the low temperature phase of LiBH_4 probed by quasielastic neutron scattering
Chemical Physics **427**, 18-21 (2013)

Rives S., Jobic H., Beale A.M., Maurin G. Diffusion of CH_4 , CO_2 , and their mixtures in AlPO_4 -5 investigated by QENS experiments and MD simulations
Journal of Physical Chemistry C **117**, 13530-13539 (2013)



Rives S., Jobic H., Kolokolov D.I., Gabrienko A.A., Stepanov A.G., Ke Y., Frick B., Devic T., Férey G., Maurin G. Diffusion of xylene isomers in the MIL-47(V) MOF material: A synergic combination of computational and experimental tools
Journal of Physical Chemistry C **117**, 6293-6302 (2013)

Salles F., Jobic H., Devic T., Guillerm V., Serre C., Koza M.M., Férey G., Maurin G. Diffusion of binary CO₂/CH₄ mixtures in the MIL-47(V) and MIL-53(Cr) metal-organic framework type solids: A combination of neutron scattering measurements and molecular dynamics simulations
Journal of Physical Chemistry C **117**, 11275-11284 (2013)

Seenivasan K., Gallo E., Piovano A., Vitillo J.G., Sommazzi A., Bordiga S., Lamberti C., Glatzel P., Groppo E. Silica-supported Ti chloride tetrahydrofuranates, precursors of Ziegler-Natta catalysts
Dalton Transactions **42**, 12706-12713 (2013)

Sharma V.K., Mitra S., Johnson M., Mukhopadhyay R. Dynamics in anionic micelles: Effect of phenyl ring
Journal of Physical Chemistry B **117**, 6250-6255 (2013)

Smrčok L., Mach P., Le Bail A. Decafluorocyclohex-1-ene at 4.2 K - crystal structure and theoretical analysis of weak interactions
Acta Crystallographica B **69**, 395-404 (2013)

Tsapatsaris N., Landsgesell S., Koza M.M., Frick B., Boldyreva E.V., Bordallo H.N. Polymorphic drugs examined with neutron spectroscopy: Is making more stable forms really that simple?
Chemical Physics **427**, 124-128 (2013)

Voneshen D.J., Refson K., Borissenko E., Krisch M., Bosak A., Piovano A., Cemal E., Enderle M., Gutmann M.J., Hoesch M., Roger M., Gannon L., Boothroyd A.T., Uthayakumar S., Porter D.G., Goff J.P. Suppression of thermal conductivity by rattling modes in thermoelectric sodium cobaltate
Nature Materials **12**, 1028-1032 (2013)

Xiao Y., Zbiri M., Downie R.A., Bos J.W.G., Brückel T., Chatterji T. Inelastic neutron scattering study of crystal field excitations of Nd³⁺ in NdFeAsO
Physical Review B **88**, 214419-1-214419-6 (2013)

Yan C., Angus-Smyth A., Bain C.D. Adsorption kinetics of non-ionic surfactants in micellar solutions: Effects of added charge
Faraday Discussions **160**, 45-61 (2013)

Yang Q., Vaesen S., Ragon F., Wiersum A.D., Wu D., Lago A., Devic T., Martineau C., Taulelle F., Llewellyn P.L., Jobic H., Zhong C., Serre C., De Weireld G., Maurin G. A water stable metal-organic framework with optimal features for CO₂ capture
Angewandte Chemie International Edition **52**, 1-6 (2013)

Zanatta M., Fontana A., Orecchini A., Petrillo C., Sacchetti F. Inelastic neutron scattering investigation in glassy SiSe₂: Complex dynamics at the atomic scale
Journal of Physical Chemistry Letters **4**, 1143-1147 (2013)

Beduz C., Carravetta M., Chen J.Y.C., Concistrè M., Denning M., Frunzi M., Horsewill A.J., Johannessen O.G., Lawler R., Lei X., Leviitt M.H., Li Y., Mamone S., Murata Y., Nagel U., Nishida T., Ollivier J., Rols S., Rööm T., Sarkar R., Turro N.J., Yang Y. Quantum rotation of *ortho* and *para*-water encapsulated in a fullerene cage
Proceedings of the National Academy of Sciences **109**, 12894-12898 (2012)

Capaccioli S., Ngai K.L., Ancherbak S., Paciaroni A. Evidence of coexistence of change of caged dynamics at T_g and the dynamic transition at T_d in solvated proteins
Journal of Physical Chemistry B **116**, 1745-1757 (2012)

SPECTROSCOPY IN SOLID STATE PHYSICS AND CHEMISTRY



Heylen S., Joos L., Parac-Vogt T.N., Van Speybroeck V., Kirschhock C.E.A., Martens J.A.
Entropy-driven chemisorption of NO_x on phosphotungstic acid
Angewandte Chemie International Edition **51**, 11010-11013 (2012)

Ling C.D., Miiller W., Johnson M.R., Richard D., Rols S., Madge J., Evans I.R. Local structure, dynamics, and the mechanisms of oxide ionic conduction in $\text{Bi}_{26}\text{Mo}_{10}\text{O}_{69}$
Chemistry of Materials **24**, 4607-4614 (2012)