



NEUTRONS  
FOR SCIENCE

PUBLICATIONS  
LIST

Institut Laue-Langevin

**2015**

This document lists all the ILL publications that have been registered at the Joint ILL-ESRF Library in 2015.

In 2015, the ILL received notice of 556 publications by ILL staff and users. The distribution by subject is as follows.

Applied Physics, Instrumentation and Techniques .....	36
Biology .....	53
Crystallography .....	79
Liquids and Glasses .....	34
Magnetic Excitations .....	49
Magnetic Structures .....	73
Materials Science and Engineering .....	50
Nuclear and Particle Physics .....	46
Theory .....	14
Soft Matter .....	88
Spectroscopy in Solid State Physics and Chemistry ...	29
Other .....	5

If you are interested in publications registered in previous years, please consult our web site:  
<http://www.ill.eu/science-technology/scientific-publications/list-of-publications/>

Institut Laue-Langevin  
Communication Unit  
CS 20156, F-38042 Grenoble Cedex 9  
[communication@ill.eu](mailto:communication@ill.eu)  
[www.ill.eu](http://www.ill.eu)

---

## Contents

---

	page
APPLIED PHYSICS, INSTRUMENTATION AND TECHNIQUES	2
BIOLOGY	4
CRYSTALLOGRAPHY	6
LIQUIDS AND GLASSES	10
MAGNETIC EXCITATIONS	12
MAGNETIC STRUCTURES	14
MATERIALS SCIENCE AND ENGINEERING	18
NUCLEAR AND PARTICLE PHYSICS	20
SOFT MATTER	23
SPECTROSCOPY IN SOLID STATE PHYSICS AND CHEMISTRY	28
THEORY	29
OTHER	30

# PUBLICATIONS LIST

Institut Laue-Langevin

# 2015

# PUBLICATIONS

## Applied Physics, Instrumentation and Techniques

Adlmann F.A., Gutfreund P., Ankner J.F., Browning J.F., Parizzi A., Vacaliuc B., Halbert C.E., Rich J.P., Dennison A.J.C., Wolff M. Towards neutron scattering experiments with sub-millisecond time resolution *Journal of Applied Crystallography* **48**, 220-226 (2015)

Afach S., Ban G., Bison G., Bodek K., Chowdhuri Z., Daum M., Fertl M., Franke B., Geltenbort P., Grujić Z.D., Hayen L., H elaine V., Henneck R., Kasprzak M., Kermaidic Y., Kirch K., Komposch S., Kozela A., Krempel J., Lauss B., Lefort T., Lemi ere Y., Mchedlishvili A., Naviliat-Cuncic O., Piegsa F.M., Pignol G., Prashanth P.N., Qu em ener G., Rawlik M., Ries D., Rebreyend D., Roccia S., Rozpedzik D., Schmidt-Wellenburg P., Severijns N., Weis A., Wursten E., Wyszynski G., Zejma J., Zsigmond G. A device for simultaneous spin analysis of ultracold neutrons *European Physical Journal A* **51**, 143-1-143-10 (2015)

Alpert B., Balata M., Bennett D., Biasotti M., Boragno C., Brofferio C., Ceriale V., Corsini D., Day P.K., De Gerone M., Dressler R., Faverzani M., Ferri E., Fowler J., Gatti F., Giachero A., Hays-Wehle J., Heinitz S., Hilton G., K oster U., Lusignoli M., Maino M., Mates J., Nisi S., Nizzolo R., Nucciotti A., Pessina G., Pizzigoni G., Puiu A., Ragazzi S., Reintsema C., Ribeiro Gomes M., Schmidt D., Schumann D., Sisti M., Swetz D., Terranova F., Ullom J. HOLMES *European Physical Journal C* **75**, 112-1-112-11 (2015)

Beaucour J., Kreuz M., Boehm M., Boffy R., Cristiglio V., Dem e B., Didier L., Falus P., Fouquet P., Gandelli R., Gibert Y., Giroud B., Jarry B., Lachaume P., Roux S., Thomas F., Vorobiev A. The H5 guide system – the latest innovative guide system at the ILL *Neutron News* **26**, 11-14 (2015)

Birch J., Buffet J.C., Clergeau J.F., van Esch P., Ferraton M., Guerard B., Hall-Wilton R., Hultman L., H oglund C., Jensen J., Khaplanov A., Piscitelli F. Investigation of background in large-area neutron detectors due to alpha emission from impurities in aluminium *Journal of Instrumentation* **10**, P10019-1-P10019-15 (2015)

Blanc A., Chebboubi A., de France G., Drouet F., Faust H., Jentschel M., Kessedjian G., K oster U., Leoni S., Materna T., Mutti P., Panebianco S., Sage C., Simpson G., Soldner T., Ur C.A., Urban W., Vancraeynest A. From EXILL (EXogam at the ILL) to FIPPS (Fission Product Prompt  $\gamma$ -ray Spectrometer) *EPJ Web of Conferences* **93**, 01015-1-01015-6 (2015)

Boehm M., Steffens P., Kulda J., Klicpera M., Roux S., Courtois P., Svoboda P., Saroun J., Sechovsky V. ThALES – Three Axis Low Energy Spectroscopy for highly correlated electron systems *Neutron News* **26**, 18-21 (2015)

Brenner T., Fierlinger P., Geltenbort P., Gutmiedl E., Hollering A., Lauer T., Petzoldt G., Ruhstorfer D., Schroffenegger J., Seemann K.M., Soltwedel O., Stuiber S., Taubenheim B., Windmayer D., Zechlau T. Deuterated polyethylene coatings for ultra-cold neutron applications *Applied Physics Letters* **107**, 121604-1-121604-4 (2015)

Cristiglio V., Giroud B., Didier L., Dem e B. D16 is back to business: More neutrons, more space, more fun *Neutron News* **26**, 22-24 (2015)

Cubitt R., Saerbeck T., Campbell R.A., Barker R., Gutfreund P. An improved algorithm for reducing reflectometry data involving divergent beams or non-flat samples *Journal of Applied Crystallography* **48**, 2006-2011 (2015)

Ehlers G., Stewart J.R., Deen P.P., Andersen K.H. Neutron xyz – Polarization analysis at a time-of-flight instrument *EPJ Web of Conferences* **83**, 03004-1-03004-6 (2015)

Farago B., Falus P., Hoffmann I., Gradzielski M., Thomas F., Gomez C. The IN15 upgrade *Neutron News* **26**, 15-17 (2015)

Foadian F., Carrad o A., Palkowski H. Precision tube production: Influencing the eccentricity and residual stresses by tilting and shifting *Journal of Materials Processing Technology* **222**, 155-162 (2015)

Gonz alez M.A. MDANSE 2014 – A school on the use of molecular dynamics to analyze neutron scattering experiments *Neutron News* **26**, 6 (2015)

Kulin G.V., Frank A.I., Goryunov S.V., Kustov D.V., Geltenbort P., Jentschel M., Strepetov A.N., Bushuev V.A. Spectrometer for new gravitational experiment with UCN *Nuclear Instruments and Methods in Physics Research A* **792**, 38-46 (2015)

Lopez C.G., Watanabe T., Martel A., Porcar L., Cabral J.T. Microfluidic-SANS: Flow processing of complex fluids *Scientific Reports* **5**, 7727-1-7727-7 (2015)

Martinez N., Natali F., Peters J. mQfit, a new program for analyzing quasi-elastic neutron scattering data *EPJ Web of Conferences* **83**, 03010-1-03010-4 (2015)

Materna T., Letourneau A., Amouroux C., Marchix A., Litaize O., S erot O., Regnier D., Blanc A., Jentschel M., K oster U., Mutti P., Soldner T., Simpson G., Leoni S., de France G., Urban W. Fission studies by prompt gamma-ray spectrometry *EPJ Web of Conferences* **93**, 02020-1-02020-4 (2015)

- Régis J.M., Jolie J., Mach H., Simpson G.S., Blazhev A., Pascovici G., Pfeiffer M., Rudigier M., Saed-Samii N., Warr N., Blanc A., de France G., Jentschel M., Köster U., Mutti P., Soldner T., Ur C.A., Urban W., Bruce A.M., Drouet F., Fraile L.M., Ilieva S., Korten W., Kröll T., Lalkovski S., Marginean S., Pazy V., Podolyak Z., Regan P.H., Stezowski O., Vancraeynest A. The generalized centroid difference method for lifetime measurements via  $\gamma$ - $\gamma$  coincidences using large fast-timing arrays  
EPJ Web of Conferences **93**, 01013-1-01013-6 (2015)
- Sacchetti F., Colonna N., Faccini R., Guérard B., Hall-Wilton R., Murtas F., Petrillo C., Pietropaolo A., Rhodes N., Quintieri L., Tardocchi M., Valente P.  $^3\text{He}$ -free neutron detectors and their applications  
European Physical Journal Plus **130**, 53-1-53-11 (2015)
- Schmidt-Wellenburg P., Bossy J., Farhi E., Fertl M., Leung K.K.H., Rahli A., Soldner T., Zimmer O. Experimental study of ultracold neutron production in pressurized superfluid helium  
Physical Review C **92**, 024004-1-024004-8 (2015)
- Schneider F., Beyer T., Blaum K., Block M., Chenmarev S., Dorrer H., Düllmann C.E., Eberhardt K., Eibach M., Eliseev S., Grund J., Köster U., Nagy S., Novikov Y.N., Renisch D., Türler A., Wendt K. Preparatory studies for a high-precision Penning-trap measurement of the  $^{163}\text{Ho}$  electron capture Q-value  
European Physical Journal A **51**, 89-1-89-8 (2015)
- Segura-Ruiz J., Beaucour J., Giroud B., Atkins D., Cubitt R. D50, an innovative ILL prototype for a white beam neutron reflectometer  
Neutron News **26**, 27 (2015)
- Segura-Ruiz J., Gutfreund P., Imbert G., Ponard A., Cubitt R. Hydrogen accumulation as the origin of delamination at the  $\alpha$ -carbon/ $\text{SiO}_2$  interface  
Journal of Applied Physics **117**, 215302-1-215302-5 (2015)
- Seiler D., Maier-Komor P., Gernhäuser R. Design and automation of a new versatile UHV plant for very vacuum-sensitive multilayer evaporations  
Journal of Radioanalytical and Nuclear Chemistry **305**, 717-721 (2015)
- Siemens C., Brose D., Böhrer L., Geltenbort P., Plonka-Spehr C. Improved instrument for the determination of the neutron electric charge  
Nuclear Instruments and Methods in Physics Research A **778**, 26-30 (2015)
- Singh A., Topkar A., Köster U., Mukhopadhyay P.K., Pithawa C.K. Performance study of an integrated  $\Delta E$ -E silicon detector telescope using the Lohengrin fission fragment separator at ILL, Grenoble  
IEEE Transactions on Nuclear Science **62**, 264-271 (2015)
- Vorobiev A., Devishvili A., Palsson G., Rundlöf H., Johansson N., Olsson A., Dennison A., Wollf M., Giroud B., Aguetaz O., Hjörvarsson B. Recent upgrade of the polarized neutron reflectometer SuperADAM  
Neutron News **26**, 25-26 (2015)
- Yamada M., Iwashita Y., Ichikawa M., Fuwa Y., Tongu H., Shimizu H.M., Mishima K., Yamada N.I., Hirota K., Otake Y., Seki Y., Yamagata Y., Hino M., Kitaguchi M., Garbe U., Kennedy S.J., Lee W.T., Andersen K.H., Guérard B., Manzin G., Geltenbort P. Pulsed neutron-beam focusing by modulating a permanent-magnet sextupole lens  
Progress of Theoretical and Experimental Physics **2015**, 043G01-1-043G01-22 (2015)
- Zaz G., Calzavara Y., Le Clézio E., Despaux G. Adaptation of a high frequency ultrasonic transducer to the measurement of water temperature in a nuclear reactor  
Physics Procedia **70**, 195-198 (2015)
- Zaz G., Dekkious A., Meignen P.A., Calzavara Y., Le Clézio E., Despaux G. High frequency transducer dedicated to the high-resolution in situ measurement of the distance between two nuclear fuel plates  
Physics Procedia **70**, 191-194 (2015)
- Brax P. Testing chameleon fields with ultra cold neutron bound states and neutron interferometry  
Physics Procedia **51**, 73-77 (2014)
- Cooper-Jensen C.P., Vorobiev A., Klinkby E., Kapaklis V., Wilkens H., Rats D., Hjörvarsson B., Kirstein O., Bentley P.M. "m = 1" coatings for neutron guides  
Journal of Physics: Conference Series **528**, 012005-1-012005-7 (2014)
- Fujiwara T., Mitsuya Y., Takahashi H., Fushie T., Kishimoto S., Guérard B., Uesaka M. The performance of Glass GEM  
Journal of Instrumentation **9**, P11007-1-P11007-9 (2014)
- Jiménez-Ruiz M., Ivanov A., Fuard S. LAGRANGE – The new neutron vibrational spectrometer at the ILL  
Journal of Physics: Conference Series **549**, 012004-1-012004-5 (2014)
- Rodríguez Palomino L.A., Dawidowski J., Blostein J.J., Cuello G.J. New prospects of VESUVIO applied to measurements in water mixtures  
Journal of Physics: Conference Series **571**, 012008-1-012008-10 (2014)

## PUBLICATIONS

## Biology

- Ali S., Sondergaard C.R., Teixeira S., Pickersgill R.W.  
Structural insights into the loss of catalytic competence in pectate lyase activity at low pH  
*FEBS Letters* **589**, 3242-3246 (2015)
- Bauer M., Kékicheff P., Iss J., Fajolles C., Charitat T., Daillant J., Marques C.M. Sliding tethered ligands add topological interactions to the toolbox of ligand-receptor design  
*Nature Communications* **6**, 8117-8117-8 (2015)
- Bertram N., Laursen T., Barker R., Bavishi K., Møller B.L., Cárdenas M. Nanodisc films for membrane protein studies by neutron reflection: Effect of the protein scaffold choice  
*Langmuir* **31**, 8386-8391 (2015)
- Blakeley M.P., Hasnain S.S., Antonyuk S.V. Sub-atomic resolution X-ray crystallography and neutron crystallography: Promise, challenges and potential  
*IUCr* **2**, 464-474 (2015)
- Bucciarelli S., Casal-Dujat L., De Michele C., Sciortino F., Dhont J., Bergenholtz J., Farago B., Schurtenberger P., Stadner A. Unusual dynamics of concentration fluctuations in solutions of weakly attractive globular proteins  
*Journal of Physical Chemistry Letters* **6**, 4470-4474 (2015)
- Calligari P.A., Calandrini V., Ollivier J., Artero J.B., Härtlein M., Johnson M., Kneller G.R. Adaptation of extremophilic proteins with temperature and pressure: Evidence from initiation factor  $\phi$   
*Journal of Physical Chemistry B* **119**, 7860-7873 (2015)
- Conejos-Sánchez I., Cardoso I., Oteo-Vives M., Romero-Sanz E., Paul A., Sauri A., Morcillo M.A., Saraiva M.J., Vicent M.J. Polymer-doxycycline conjugates as fibril disrupters: An approach towards the treatment of a rare amyloidotic disease  
*Journal of Controlled Release* **198**, 80-90 (2015)
- Darre L., Iglesias-Fernandez J., Kohlmeyer A., Wacklin H., Domene C. Molecular dynamics simulations and neutron reflectivity as an effective approach to characterize biological membranes and related macromolecular assemblies  
*Journal of Chemical Theory and Computation* **11**, 4875-4884 (2015)
- de Ghellinck A., Fragneto G., Laux V., Haertlein M., Jouhet J., Sferrazza M., Wacklin H. Lipid polyunsaturation determines the extent of membrane structural changes induced by Amphotericin B in *Pichia pastoris* yeast  
*Biochimica et Biophysica Acta* **1848**, 2317-2325 (2015)
- de Ghellinck A., Shen C., Fragneto G., Klösgen B. Probing the position of resveratrol in lipid bilayers: A neutron reflectivity study  
*Colloids and Surfaces B* **134**, 65-72 (2015)
- de la Noue A.C., Peters J., Gervais P., Martinez N., Perrier-Cornet J.M., Natali F. Proton dynamics in bacterial spores, a neutron scattering investigation  
*EPJ Web of Conferences* **83**, 02003-1-02003-5 (2015)
- Delaforge E., Milles S., Bouvignies G., Bouvier D., Boivin S., Salvi N., Maurin D., Martel A., Round A., Lemke E.A., Ringkjøbing Jensen M., Hart D.J., Blackledge M. Large-scale conformational dynamics control H5N1 influenza polymerase PB2 binding to importin  $\alpha$   
*Journal of the American Chemical Society* **137**, 15122-15134 (2015)
- Denninger A.R., Breglio A., Maheras K.J., Leduc G., Cristiglio V., Demé B., Gow A., Kirschner D.A. Claudin-11 tight junctions in myelin are a barrier to diffusion and lack strong adhesive properties  
*Biophysical Journal* **109**, 1387-1397 (2015)
- Diop L.V.B., Isnard O. Spin reorientation and magnetic structure of  $\text{HoCo}_2\text{B}_6$  ferrimagnetic compound  
*Journal of Physics: Condensed Matter* **27**, 026004-1-026004-6 (2015)
- Edlich-Muth C., Artero J.B., Callow P., Przewlaka M.R., Watson A.A., Zhang W., Glover D.M., Debski J., Dadlez M., Round A.R., Forsyth V.T., Lave E.D. The pentameric nucleoplasmin fold is present in *Drosophila* FKBP39 and a large number of chromatin-related proteins  
*Journal of Molecular Biology* **427**, 1949-1963 (2015)
- Erlkamp M., Marion J., Martinez N., Czeslik C., Peters J., Winter R. Influence of pressure and crowding on the sub-nanosecond dynamics of globular proteins  
*Journal of Physical Chemistry B* **119**, 4842-4848 (2015)
- Fichou Y., Heyden M., Zaccai G., Weik M., Tobias D.J. Molecular dynamics simulations of a powder model of the intrinsically disordered protein tau  
*Journal of Physical Chemistry B* **119**, 12580-12589 (2015)
- Fichou Y., Schirò G., Gallat F.X., Laguri C., Moulin M., Combet J., Zamponi M., Härtlein M., Picart C., Mossou E., Lortat-Jacob H., Colletier J.P., Tobias D.J., Weik M. Hydration water mobility is enhanced around tau amyloid fibers  
*Proceedings of the National Academy of Sciences* **112**, 6365-6370 (2015)
- Gabel F. Small-angle neutron scattering for structural biology of protein-RNA complexes  
*Methods in Enzymology* **558**, 391-415 (2015)
- Hemming J.M., Hughes B.R., Rennie A.R., Tomas S., Campbell R.A., Hughes A.V., Arnold T., Botchway S.W., Thompson K.C. Environmental pollutant ozone causes damage to lung surfactant protein B (SP-B)  
*Biochemistry* **54**, 5185-5197 (2015)

- Hladilkova J., Fischer H.E., Jungwirth P., Mason P.E. Hydration of hydroxyl and amino groups examined by molecular dynamics and neutron scattering  
Journal of Physical Chemistry B **119**, 6357-6365 (2015)
- Jagalski V., Barker R.D., Thygesen M.B., Gotfryd K., Krüger M.B., Shi L., Maric S., Bovet N., Moulin M., Haertlein M., Pomorski T.G., Loland C.J., Cárdenas M. Grafted biomembranes containing membrane proteins – The case of the leucine transporter  
Soft Matter **11**, 7707-7711 (2015)
- Junghans A., Watkins E.B., Barker R.D., Singh S., Waltman M.J., Smith H.L., Pocivavsek L., Majewski J. Analysis of biosurfaces by neutron reflectometry: From simple to complex interfaces  
Biointerphases **10**, 019014-1-019014-12 (2015)
- Kim H.S., Gabel F. Uniqueness of models from small-angle scattering data: The impact of a hydration shell and complementary NMR restraints  
Acta Crystallographica D **71**, 57-66 (2015)
- Konarev P.V., Svergun D.I. *A posteriori* determination of the useful data range for small-angle scattering experiments on dilute monodisperse systems  
IUCr **2**, 352-360 (2015)
- Kundu S., Mehan S., Aswal V.K., Callow P. Studies on interactions among lysozyme proteins in solution: Effects of concentration, *pD*, temperature and monovalent ions  
Chemical Physics Letters **622**, 23-27 (2015)
- Laulumaa S., Kursula P., Natali F. Neutron scattering studies on protein dynamics using the human myelin peripheral membrane protein P2  
EPJ Web of Conferences **83**, 02010-1-02010-4 (2015)
- Laulumaa S., Blakeley M.P., Raasakka A., Moulin M., Härtlein M., Kursula P. Production, crystallization and neutron diffraction of fully deuterated human myelin peripheral membrane protein P2  
Acta Crystallographica F **71**, 1391-1395 (2015)
- Laulumaa S., Nieminen T., Lehtimäki M., Aggarwal S., Simons M., Koza M.M., Vattulainen I., Kursula P., Natali F. Dynamics of the peripheral membrane protein P2 from human myelin measured by neutron scattering – A comparison between wild-type protein and a hinge mutant  
PloS One **10**, e0128954-1-e0128954-20 (2015)
- Lenton S., Nylander T., Teixeira S.C.M., Holt C. A review of the biology of calcium phosphate sequestration with special reference to milk  
Dairy Science & Technology **95**, 3-14 (2015)
- Lind T.K., Darré L., Domene C., Urbanczyk-Lipkowska Z., Cárdenas M., Wacklin H.P. Antimicrobial peptide dendrimer interacts with phosphocholine membranes in a fluidity dependent manner: A neutron reflection study combined with molecular dynamics simulations  
Biochimica et Biophysica Acta **1848**, 2075-2084 (2015)
- Maric S., Thygesen M.B., Schiller J., Marek M., Moulin M., Haertlein M., Forsyth V.T., Bogdanov M., Dowhan W., Arleth L., Pomorski T.G. Biosynthetic preparation of selectively deuterated phosphatidylcholine in genetically modified *Escherichia coli*  
Applied Microbiology and Biotechnology **99**, 241-254 (2015)
- Marion J., Trovaslet M., Martinez N., Masson P., Schweins R., Nachon F., Trapp M., Peters J. Pressure-induced molten globule state of human acetylcholinesterase: Structural and dynamical changes monitored by neutron scattering  
Physical Chemistry Chemical Physics **17**, 3157-3163 (2015)
- Monkenbusch M., Stadler A., Biehl R., Ollivier J., Zamponi M., Richter D. Fast internal dynamics in alcohol dehydrogenase  
Journal of Chemical Physics **143**, 075101-1-075101-12 (2015)
- Mossou E. Life as an instrument scientist  
Physics World **28**, 31-32 (2015)
- Paciaroni A., Orecchini A., Sebastiani F., Capaccioli S., Ngai K.L., Moulin M., Haertlein M., Petrillo C., Sacchetti F. Vibrational dynamics changes of protein hydration water across the dynamic transition  
Journal of Non-Crystalline Solids **407**, 465-471 (2015)
- Schneck E., Berts I., Halperin A., Daillant J., Fragneto G. Neutron reflectometry from poly (ethylene-glycol) brushes binding anti-PEG antibodies: Evidence of ternary adsorption  
Biomaterials **46**, 95-104 (2015)
- Sebastiani F., Longo M., Orecchini A., Comez L., De Francesco A., Muthmann M., Teixeira S.C.M., Petrillo C., Sacchetti F., Paciaroni A. Hydration-dependent dynamics of human telomeric oligonucleotides in the picosecond timescale: A neutron scattering study  
Journal of Chemical Physics **143**, 015102-1-015102-8 (2015)
- Sen D., Bahadur J., Das A., Mazumder S., Melo J.S., Frielinghaus H., Loidl R. *E. coli* imprinted nano-structured silica micro-granules by spray drying: Optimization of calcination temperature  
Colloids and Surfaces B: Biointerfaces **127**, 164-171 (2015)
- Stadler A.M., Koza M.M., Fitter J. Determination of conformational entropy of fully and partially folded conformations of holo- and apomyoglobin  
Journal of Physical Chemistry B **119**, 72-82 (2015)

## PUBLICATIONS

- Sugiyama M., Horikoshi N., Suzuki Y., Taguchi H., Kujirai T., Inoue R., Oba Y., Sato N., Martel A., Porcar L., Kurumizaka H. Solution structure of variant H2A.Z.1 nucleosome investigated by small-angle X-ray and neutron scatterings  
*Biochemistry and Biophysics Reports* **4**, 28-32 (2015)
- Vauclare P., Marty V., Fabiani E., Martinez N., Jasnin M., Gabel F., Peters J., Zaccari G., Franzetti B. Molecular adaptation and salt stress response of *Halobacterium salinarum* cells revealed by neutron spectroscopy  
*Extremophiles* **19**, 1099-1107 (2015)
- Vitiello G., Falanga A., Petruk A.A., Merlino A., Fragneto G., Paduano L., Galdiero S., D'Errico G. Fusion of raft-like lipid bilayers operated by a membranotropic domain of the HSV-type I glycoprotein gH occurs through a cholesterol-dependent mechanism  
*Soft Matter* **11**, 3003-3016 (2015)
- White J., Heß D., Raynes J., Laux V., Haertlein M., Forsyth T., Jeyasingham A. The aggregation of "native" human serum albumin  
*European Biophysics Journal* **44**, 367-371 (2015)
- Brogan A.P.S., Sessions R.B., Perriman A.W., Mann S. Molecular dynamics simulations reveal a dielectric-responsive coronal structure in protein-polymer surfactant hybrid nanoconstructs  
*Journal of the American Chemical Society* **136**, 16824-16831 (2014)
- Charvolin D., Picard M., Huang L.S., Berry E.A., Popot J.L. Solution behavior and crystallization of cytochrome *bc<sub>1</sub>* in the presence of amphipols  
*Journal of Membrane Biology* **247**, 981-996 (2014)
- Hennig J., Militti C., Popowicz G.M., Wang I., Sonntag M., Geerlof A., Gabel F., Gebauer F., Sattler M. Structural basis for the assembly of the Sxl-Unr translation regulatory complex  
*Nature* **515**, 287-290 (2014)
- Kahouli A., Valle-Orero J., Garden J., Peyrard M. Ionic mobility in DNA films studied by dielectric spectroscopy  
*European Physical Journal E* **37**, 82-1-82-9 (2014)
- Knoll W., Peters J., Kursula P., Gerelli Y., Natali F. Influence of myelin proteins on the structure and dynamics of a model membrane with emphasis on the low temperature regime  
*Journal of Chemical Physics* **141**, 205101-1-205101-9 (2014)
- Martins M.L., Ignazzi R., Jacobsen H., de Araujo D.R., Yokaichiya F., Saeki M.J., de Paula E., Bordallo H.N. Encapsulation effects on the structure-dynamics on drug carriers revealed by neutron scattering  
*Neutron News* **25**, 16-19 (2014)
- Müller C., Bunka M., Haller S., Köster U., Groehn V., Bernhardt P., van der Meulen N., Türlér A., Schibli R. Promising prospects for <sup>44</sup>Sc-/<sup>47</sup>Sc-based theragnostics: Application of <sup>47</sup>Sc for radionuclide tumor therapy in mice  
*Journal of Nuclear Medicine* **55**, 1658-1664 (2014)
- Peters J., Martinez N., Michoud G., Cario A., Franzetti B., Oger P., Jebbar M. Deep sea microbes probed by incoherent neutron scattering under high hydrostatic pressure  
*Zeitschrift für Physikalische Chemie* **228**, 1121-1133 (2014)
- Zeidler A., Salmon P.S., Skinner L.B. Packing and the structural transformations in liquid and amorphous oxides from ambient to extreme conditions  
*Proceedings of the National Academy of Sciences of the USA* **111**, 10045-10048 (2014)

## Crystallography

- Abramova G., Schefer J., Aliouane N., Boehm M., Petrakovskiy G., Vorotynov A., Gorev M., Bovina A., Sokolov V. Single-crystal and powder neutron diffraction study of the Fe<sub>x</sub>Mn<sub>1-x</sub>S solid solutions  
*Journal of Alloys and Compounds* **632**, 563-567 (2015)
- Ahouari H., Rouse G., Rodríguez-Carvajal J., Sougrati M.T., Saubane M., Courty M., Rechem N., Tarascon J.M. Unraveling the structure of iron(III) oxalate tetrahydrate and its reversible Li insertion capability  
*Chemistry of Materials* **27**, 1631-1639 (2015)
- Battle P.D., Chin C.M., Evers S.I., Westwood M. Structure and magnetism of Sr<sub>3</sub>NiSb<sub>2</sub>O<sub>9</sub>  
*Journal of Solid State Chemistry* **227**, 1-4 (2015)
- Bellucci V., Paternò G., Camattari R., Guidi V., Jentschel M., Bastie P. High-efficiency diffraction and focusing of X-rays through asymmetric bent crystalline planes  
*Journal of Applied Crystallography* **48**, 297-300 (2015)
- Ben Hassine R., Cherif W., Alonso J.A., Mompeán F., Fernández-Díaz M.T., Elhalouani F. Enhanced relative cooling power of Fe-doped La<sub>0.67</sub>Sr<sub>0.22</sub>Ba<sub>0.11</sub>Mn<sub>1-x</sub>Fe<sub>x</sub>O<sub>3</sub> perovskites: Structural, magnetic and magnetocaloric properties  
*Journal of Alloys and Compounds* **649**, 996-1006 (2015)
- Ben Hassine R., Cherif W., Sánchez-Benítez J., Mompeán F.J., Fernández-Díaz M.T., Elhalouani F., Alonso J.A. Enhancement of magnetoresistance and ferromagnetic coupling in the complex perovskites CaCu<sub>3</sub>(Mn<sub>4-x</sub>Al<sub>x</sub>)O<sub>12</sub> (x = 0, 0.2, 0.4, and 0.6): A neutron diffraction study  
*Journal of Applied Physics* **118**, 103902-1-103902-6 (2015)

- Blanco M.C., Paz S.A., Nassif V.M., Guimpel J.J., Carbonio R.E. Synthesis and characterization of the new two-dimensional Heisenberg antiferromagnet double perovskite  $\text{BaLaCuSbO}_6$  Dalton Transactions **44**, 10860-10866 (2015)
- Braunschweig H., Gackstatter A., Kupfer T., Radacki K., Franke S., Meyer K., Fucke K., Lemée-Cailleau M.H. Uranium hydridoborates: Synthesis, magnetism, and X-ray/neutron diffraction structures Inorganic Chemistry **54**, 8022-8028 (2015)
- Cabrillo C., Fernández-Alonso F., Fernández-Perea R., Bermejo F.J., González M.A., Mondelli C., Farhi E. Crystallization of *para*-hydrogen: A quantum phase transition at finite temperature? Journal of Physics: Conference Series **663**, 012006-1-012006-4 (2015)
- Carretero-Genevrié A., Gich M., Picas L., Sanchez C., Rodríguez-Carvajal J. Chiral habit selection on nanostructured epitaxial quartz films Faraday Discussions **179**, 227-233 (2015)
- Cascos V., Martínez-Coronado R., Alonso J.A., Fernández-Díaz M.T. Structural and electrical characterization of the Co-doped  $\text{Ca}_2\text{Fe}_2\text{O}_5$  brownmillerite: Evaluation as SOFC-cathode materials International Journal of Hydrogen Energy **40**, 5456-5468 (2015)
- Chang C.S.T., De Geuser F., Banhart J. *In situ* characterization of  $\beta''$  precipitation in an Al-Mg-Si alloy by anisotropic small-angle neutron scattering on a single crystal Journal of Applied Crystallography **48**, 455-463 (2015)
- Chatterji T., Kumar C.M.N., Wdowik U.D. Anomalous temperature-induced volume contraction in GeTe Physical Review B **91**, 054110-1-054110-8 (2015)
- Chen C., Wong K., Chathoth S.M. Observation of distinct atomic caging in  $\text{Ce}_{80}\text{Ni}_{20}$  metallic melts Journal of Alloys and Compounds **650**, 724-727 (2015)
- Chippindale A.M., Hibble S.J., Marelli E., Bilbe E.J., Hannon A.C., Zbiri M. Chemistry and structure by design: Ordered  $\text{CuNi}(\text{CN})_4$  sheets with copper(III) in a square-planar environment Dalton Transactions **44**, 12502-12506 (2015)
- Corallini S., Ceretti M., Silly G., Piovano A., Singh S., Stern J., Ritter C., Ren J., Eckert H., Conder K., Chen W.T., Chou F.C., Ichikawa N., Shimakawa Y., Paulus W. One-dimensional oxygen diffusion mechanism in  $\text{Sr}_2\text{ScGaO}_5$  electrolyte explored by neutron and synchrotron diffraction,  $^{17}\text{O}$  NMR, and density functional theory calculations Journal of Physical Chemistry C **119**, 11447-11458 (2015)
- Delacotte C., Pérez O., Pautrat A., Berthebaud D., Hébert S., Suard E., Pelloquin D., Maignan A. Magnetodielectric effect in crystals of the noncentrosymmetric  $\text{CaOFeS}$  at low temperature Inorganic Chemistry **54**, 6560-6565 (2015)
- Díaz-Gallifa P., Fabelo O., Pasán J., Cañadillas-Delgado L., Ramirez M.A., Gallardo A.G., Ruiz-Pérez C. Synthesis and structural characterization of six Cu(III)-based coordination polymers using the thermally tunable 1,2,3,4-cyclobutanetetra-carboxylic acid CrystEngComm **17**, 5081-5093 (2015)
- Drisko G.L., Carretero-Genevrié A., Perrot A., Gich M., Gàzquez J., Rodríguez-Carvajal J., Favre L., Grosso D., Boissière C., Sanchez C. Crystallization of hollow mesoporous silica nanoparticles Chemical Communications **51**, 4164-4167 (2015)
- Ferrando-Soria J., Fabelo O., Castellano M., Cano J., Fordham S., Zhou H.C. Multielectron oxidation in a ferromagnetically coupled dinickel(III) triple mesocate Chemical Communications **51**, 13381-13384 (2015)
- Ferrara C., Mancini A., Ritter C., Malavasi L., Tealdi C. Interstitial oxide ion migration in scheelite-type electrolytes: A combined neutron diffraction and computational study Journal of Materials Chemistry A **3**, 22258-22265 (2015)
- Fucke K., McIntyre G.J., Lemée-Cailleau M.H., Wilkinson C., Edwards A.J., Howard J.A.K., Steed J.W. Insights into the crystallisation process from anhydrous, hydrated and solvated crystal forms of diatrizoic acid Chemistry – A European Journal **21**, 1036-1047 (2015)
- Fuertes V.C., Blanco M.C., Franco D.G., Ceppi S., Sánchez R.D., Fernández-Díaz M.T., Tirao G., Carbonio R.E. A new  $\text{LaCo}_{0.7(11)}\text{V}_{0.29(1)}\text{O}_{2.97(3)}$  perovskite containing vanadium in octahedral sites: Synthesis and structural and magnetic characterization Dalton Transactions **44**, 10721-10727 (2015)
- Gagin A., Levin I. Accounting for unknown systematic errors in Rietveld refinements: A Bayesian statistics approach Journal of Applied Crystallography **48**, 1201-1211 (2015)
- Golosovsky I.V., Vakhrushev S.B., García-Muñoz J.L., Brunelli M., Zhu W.M., Ye Z.-G., Skumryev V. Neutron diffraction study of the  $(\text{BiFeO}_3)_x(\text{PbTiO}_3)_x$  solid solution: Nanostructured multiferroic system Journal of Physics: Condensed Matter **27**, 046004-1-046004-8 (2015)
- Graiff C., Pontiroli D., Bergamonti L., Cavallari C., Lottici P.P., Predieri G. Structural investigation of N,N'-methylenebisacrylamide via X-ray diffraction assisted by crystal structure prediction Journal of Applied Crystallography **48**, 550-557 (2015)

## PUBLICATIONS

- Grancha T., Ferrando-Soria J., Zhou H.C., Gascon J., Seoane B., Pasán J., Fabelo O., Julve M., Pardo E. Postsynthetic improvement of the physical properties in a metal-organic framework through a single crystal to single crystal transmetallation  
*Angewandte Chemie* **127**, 6621-6625 (2015)
- Grancha T., Ferrando-Soria J., Zhou H.C., Gascon J., Seoane B., Pasán J., Fabelo O., Julve M., Pardo E. Postsynthetic improvement of the physical properties in a metal-organic framework through a single crystal to single crystal transmetallation  
*Angewandte Chemie International Edition* **54**, 6521-6525 (2015)
- Hansen T.C. Diffraction: Principles and application  
*EPJ Web of Conferences* **104**, 01002-1-01002-53 (2015)
- Hashimoto T., Murase H. Cascading time evolution of dissipative structures leading to unique crystalline textures  
*IUCr* **2**, 59-73 (2015)
- Jehle M., Hoffmann A., Kohlmann H., Scherer H., Röhr C. The 'sub' metallide oxide hydrides  $\text{Sr}_{21}\text{Si}_2\text{O}_5\text{H}_{12+x}$  and  $\text{Ba}_{21}\text{M}_2\text{O}_5\text{H}_{12+x}$  ( $M = \text{Zn, Cd, Hg, In, Tl, Si, Ge, Sn, Pb, As, Sb, Bi}$ )  
*Journal of Alloys and Compounds* **623**, 164-177 (2015)
- Kayser P., Alonso J.A., Mompeán F.J., Retuerto M., Croft M., Ignatov A., Fernández-Díaz M.T. Crystal and magnetic structure of  $\text{Sr}_2\text{B}(\text{IrO}_6)$  ( $B = \text{Sc, Ti, Fe, Co, In}$ ) in the framework of multivalent iridium double perovskites  
*European Journal of Inorganic Chemistry* **2015**, 5027-5038 (2015)
- Kiat J.M., Janolin P.E., Porcher F., Gillon B., Fernández-Díaz M.T. JDN22: International school on "Crystallography and Neutrons" and 22nd meeting of the French Neutron Society in the Oléron island  
*Neutron News* **26**, 21-22 (2015)
- Komarek A.C., Merz P., Guo H., Suard E., Chen J.M., Felsner C., Jansen M.  $\text{Pb}_2\text{PdO}_2(\text{OH})_2$  and  $\text{Pb}_2\text{PdO}(\text{OH})_4(\text{H}_2\text{O})$ : Synthesis and crystal growth at ambient conditions  
*Zeitschrift für Anorganische und Allgemeine Chemie* **641**, 1473-1479 (2015)
- Kunkel N., Reichert C., Springborg M., Wallacher D., Kohlmann H. Hydrogenation properties of  $\text{Li}_x\text{Sr}_{1-x}\text{AlSi}$  studied by quantum-chemical methods ( $0 \leq x \leq 1$ ) and in-situ neutron powder diffraction ( $x = 1$ )  
*Journal of Solid State Chemistry* **221**, 318-324 (2015)
- Liu X.Q., Battle P.D., Ridout J., Xu D., Ramos S. Structural chemistry and magnetic properties of  $\text{Y}_2\text{CoGe}_4\text{O}_{12}$   
*Journal of Solid State Chemistry* **228**, 183-188 (2015)
- Luo K., Amano Patino M., Hayward M.A.  $\text{Ca}_2\text{Cr}_{0.5}\text{Ga}_{1.5}\text{O}_5$  – An extremely redox-stable brownmillerite phase  
*Journal of Solid State Chemistry* **222**, 71-75 (2015)
- Martínez-Coronado R., Alonso J.A., Fernández-Díaz M.T. Neutron diffraction study of the low-temperature transitions in the  $\text{SrMo}_{0.9}\text{Co}_{0.1}\text{O}_3$  oxide  
*Journal of Alloys and Compounds* **644**, 770-773 (2015)
- Masuda N., Kobayashi Y., Hernandez O., Bataille T., Paofai S., Suzuki H., Ritter C., Ichijo N., Noda Y., Takegoshi K., Tassel C., Yamamoto T., Kageyama H. Hydride in  $\text{BaTiO}_{2.5}\text{H}_{0.5}$ : A labile ligand in solid state chemistry  
*Journal of the American Chemical Society* **137**, 15315-15321 (2015)
- Meggouh M., Grant D.M., Deavin O., Brunelli M., Hansen T.C., Walker G.S. Investigation of the dehydrogenation behavior of the  ${}^2\text{LiBH}_4\text{:CaNi}_5$  multicomponent hydride system  
*International Journal of Hydrogen Energy* **40**, 2989-2996 (2015)
- Mettan Y., Caputo R., Chatterji T. A theoretical and experimental study of the crystal structure of  $\text{H}_2\text{V}_3\text{O}_8$   
*RSC Advances* **5**, 106543-106550 (2015)
- Morin M., Scaramucci A., Bartkowiak M., Pomjakushina E., Deng G., Sheptyakov D., Keller L., Rodríguez-Carvajal J., Spaldin N.A., Kenzelmann M., Conder K., Medarde M. Incommensurate magnetic structure, Fe/Cu chemical disorder, and magnetic interactions in the high-temperature multiferroic  $\text{YBaCuFeO}_5$   
*Physical Review B* **91**, 064408-1-064408-14 (2015)
- Mortemard de Boisse B., Cheng J.H., Carlier D., Guignard M., Pan C.J., Bordère S., Filimonov D., Drahten C., Suard E., Hwang B.J., Wattiaux A., Delmas C.  $\text{O}_3\text{-Na}_x\text{Mn}_{1/3}\text{Fe}_{2/3}\text{O}_2$  as a positive electrode material for Na-ion batteries: Structural evolutions and redox mechanisms upon  $\text{Na}^+$  (de)intercalation  
*Journal of Materials Chemistry A* **3**, 10976-10989 (2015)
- Müller C.J., Lidin S. On squaring triangles – Structural motifs in Cu-In-Sb compounds  
*Journal of Solid State Chemistry* **231**, 25-35 (2015)
- Néner G., Fabelo O., Forsberg K., Colin C.V., Rodríguez-Carvajal J. Structural and magnetic properties of the low-dimensional fluoride  $\beta\text{-FeF}_3(\text{H}_2\text{O})_2 \cdot \text{H}_2\text{O}$   
*Dalton Transactions* **44**, 14130-14138 (2015)
- Orayech B., Faik A., López G.A., Fabelo O., Igartua J.M. Mode-crystallography analysis of the crystal structures and the low- and high-temperature phase transitions in  $\text{Na}_{0.5}\text{K}_{0.5}\text{NbO}_3$   
*Journal of Applied Crystallography* **48**, 318-333 (2015)
- Orayech B., Ortega-San-Martín L., Urcelay-Olabarria I., Lezama L., Rojo T., Arriortua M.I., Igartua J.M. Structural phase transitions and magnetic and spectroscopic properties of the double perovskites  $\text{Sr}_2\text{Co}_{1-x}\text{Mg}_x\text{TeO}_6$  ( $x = 0.1, 0.2$  and  $0.5$ )  
*Dalton Transactions* **44**, 13716-13734 (2015)

- Orayech B., Urcelay-Olabarria I., López G.A., Fabelo O., Faik A., Igarua J.M. Synthesis, structural, magnetic and phase-transition studies of the ferromagnetic  $\text{La}_2\text{CoMnO}_6$  double perovskite by symmetry-adapted modes  
*Dalton Transactions* **44**, 13867-13880 (2015)
- Ouladdiaf B., Rodríguez-Carvajal J., Goutaudier C., Ouladdiaf S., Grosgeat B., Pradelle N., Colon P. Crystal structure of human tooth enamel studied by neutron diffraction  
*Materials Research Express* **2**, 025401-1-025401-8 (2015)
- Padilla-Pantoja J., García-Muñoz J.L., Alonso J.A., Fernández-Díaz M.T. Structural effects of the spin-state crossover at high temperature in the distorted  $\text{ErCoO}_3$  cobaltite  
*Journal of Physics: Conference Series* **663**, 012005-1-012005-5 (2015)
- Pomiro F., Lohr J., Pannunzio-Miner E.V., Nassif V., Sánchez R.D., Carbonio R.E. Crystal structure, magnetic and electrical properties of compounds in the  $\text{RCrMnO}_5$  family (R = Sm, Eu, Gd, Tb, Ho and Er) synthesized under high oxygen pressure  
*European Journal of Inorganic Chemistry* **2015**, 4737-4749 (2015)
- Ponthieu M., Fernández J.F., Cuevas F., Laversenne L., Bodega J., Ares J.R., Sanchez C. Superior effect of Ni-substitution on the hydrogenation kinetics of  $\text{Mg}_6\text{Pd}_{1-x}\text{TM}_x$  (TM = Ag, Cu, Ni) pseudo-binary compounds  
*Journal of Alloys and Compounds* **645**, S334-S337 (2015)
- Potocar T., Zawisky M., Lemmel H., Springer J., Suda M. Neutron interferometric measurement and calculations of a phase shift induced by Laue transmission  
*Acta Crystallographica A* **71**, 534-541 (2015)
- Prokes K., Schulze M., Hartwig S., Schafer N., Landsgesell S., Blum C.G.F., Abou-Ras D., Hacisalihoglu M.Y., Ressouche E., Ouladdiaf B., Büchner B., Wurmehl S. Structural inhomogeneities in  $\text{FeTe}_{0.6}\text{Se}_{0.4}$ : Relation to superconductivity  
*Journal of Crystal Growth* **432**, 95-104 (2015)
- Rettenwander D., Welzl A., Cheng L., Fleig J., Musso M., Suard E., Doeff M.M., Redhammer G.J., Amthauer G. Synthesis, crystal chemistry, and electrochemical properties of  $\text{Li}_{7-2x}\text{La}_3\text{Zr}_{2x}\text{Mo}_x\text{O}_{12}$  ( $x = 0.1-0.4$ ): Stabilization of the cubic garnet polymorph via substitution of  $\text{Zr}^{4+}$  by  $\text{Mo}^{6+}$   
*Inorganic Chemistry* **54**, 10440-10449 (2015)
- Retuerto M., Alonso J.A., Martínez R., Jiménez-Villacorta F., Sánchez-Benítez J., Fernández-Díaz M.T., Garcia-Ramos C.A., Ruskov T. Neutron powder diffraction, X-ray absorption and Mössbauer spectroscopy on  $\text{Mg}_2\text{FeH}_6$   
*International Journal of Hydrogen Energy* **40**, 9306-9313 (2015)
- Rodríguez-Hermida S., Lago A.B., Carballo R., Fabelo O., Vázquez-López E.M. Homo- and heteronuclear compounds with a symmetrical bis-hydrazone ligand: Synthesis, structural studies, and luminescent properties  
*Chemistry – A European Journal* **21**, 6605-6616 (2015)
- Salamatin A.N., Falenty A., Hansen T.C., Kuhs W.F. Guest migration revealed in  $\text{CO}_2$  clathrate hydrates  
*Energy & Fuels* **29**, 5681-5691 (2015)
- Sibille R., Mazet T., Malaman B., Wang Q., Didelot E., François M. Site-dependent substitutions in mixed-metal metal-organic frameworks: A case study and guidelines for analogous systems  
*Chemistry of Materials* **27**, 133-140 (2015)
- Smith A.L., Raison P.E., Martel L., Prieur D., Charpentier T., Wallez G., Suard E., Scheinost A.C., Hennig C., Martín P., Kvashnina K.O., Cheetham A.K., Konings R.J.M. A new look at the structural properties of trisodium uranate  $\text{Na}_3\text{UO}_4$   
*Inorganic Chemistry* **54**, 3552-3561 (2015)
- Tate M.L., Hack J., Kuang X., McIntyre G.J., Withers R.L., Johnson M.R., Evans I.R.  $\text{Bi}_x\text{Nb}_x\text{O}_{1.5+x}$  ( $x = 0.0625, 0.12$ ) fast ion conductors: Structures, stability and oxide ion migration pathways  
*Journal of Solid State Chemistry* **225**, 383-390 (2015)
- Troncoso L., Alonso J.A., Fernández-Díaz M.T., Agüero A. Introduction of interstitial oxygen atoms in the layered perovskite  $\text{LaSrIn}_{1-x}\text{BxO}_{4+\delta}$  system (B = Zr, Ti)  
*Solid State Ionics* **282**, 82-87 (2015)
- Vu T.D., Barre M., Adil K., Jouanneaux A., Suard E., Goutenoire F. Investigation of the  $\text{La}_2\text{O}_3\text{-Nb}_2\text{O}_5\text{-WO}_3$  ternary phase diagram: Isolation and crystal structure determination of the original  $\text{La}_3\text{NbWO}_{10}$  material  
*Journal of Solid State Chemistry* **229**, 129-134 (2015)
- Weller M.T., Weber O.J., Henry P.F., Di Pumpo A.M., Hansen T.C. Complete structure and cation orientation in the perovskite photovoltaic methylammonium lead iodide between 100 and 352 K  
*Chemical Communications* **51**, 4180-4183 (2015)
- Yang W., Zhang H., Sun C., Liu L., Alonso J.A., Fernández-Díaz M.T., Chen L. Insight into the structure and functional application of the  $\text{Sr}_{0.95}\text{Ce}_{0.05}\text{CoO}_{3-\delta}$  cathode for solid oxide fuel cells  
*Inorganic Chemistry* **54**, 3477-3484 (2015)
- Zerdane S., Mariette C., McIntyre G.J., Lemée-Cailleau M.H., Rabiller P., Guérin L., Ameline J.C., Toudic B. Neutron Laue and X-ray diffraction study of a new crystallographic superspace phase in n-nonadecane-urea  
*Acta Crystallographica B* **71**, 293-299 (2015)

## PUBLICATIONS

Zhou J.S., Alonso J.A., Sanchez-Benitez J., Fernandez-Diaz M.T., Martinez-Coronado R., Cao L.P., Li X., Marshall L.G., Jin C.Q., Goodenough J.B. Identification of electronic state in perovskite  $\text{CaCrO}_3$  by high-pressure studies  
*Physical Review B* **92**, 144421-1-144421-8 (2015)

Corbel G., Selmi A., Suard E., Lacorre P. "Free" volume expansion and formation enthalpy of defects as key parameters tuning the oxide ionic conductivity in derivatives of  $\beta\text{-La}_2\text{Mo}_2\text{O}_9$   
*Chemistry of Materials* **26**, 6838-6851 (2014)

Drisko G.L., Carretero-Genevri A., Gich M., Gàzquez J., Ferrah D., Grosso D., Boissière C., Rodríguez-Carvajal J., Sanchez C. Water-induced phase separation forming macrostructured epitaxial quartz films on silicon  
*Advanced Functional Materials* **24**, 5494-5502 (2014)

Larsen F.K., Overgaard J., Christensen M., McIntyre G.J., Timco G., Winpenny R.E.P. Metal distribution and disorder in the crystal structure of  $[\text{NH}_2\text{Et}_2][\text{Cr}_7\text{MF}_8(\text{tBuCO}_2)_6]$  wheel molecules for  $M = \text{Mn, Fe, Co, Ni, Cu, Zn}$  and  $\text{Cd}$   
*Acta Crystallographica B* **70**, 932-941 (2014)

Ma Z., Wang Y., Sun C., Alonso J.A., Fernández-Díaz M.T., Chen L. Experimental visualization of the diffusion pathway of sodium ions in the  $\text{Na}_3[\text{Ti}_2\text{P}_2\text{O}_{10}\text{F}]$  anode for sodium-ion battery  
*Scientific Reports* **4**, 7231-1-7231-5 (2014)

Martinez-Coronado R., Agüero A., Alonso J.A., Pérez-Coll D., Fernández-Díaz M.T. Neutron structural characterization and transport properties of the oxidized and reduced  $\text{LaCo}_{0.5}\text{Ti}_{0.5}\text{O}_3$  perovskite oxide  
*Journal of Physics: Conference Series* **549**, 012022-1-012022-9 (2014)

Martínez-Lope M.J., Sánchez-Benítez J., Fernández-Díaz M.T., Alonso J.A. High-pressure preparation and characterization of  $(R,R')\text{NiO}_3$  ( $R,R'$  = rare earths) perovskites: Effect of the variance of the  $R^{3+}$  ionic sizes  
*Journal of Physics: Conference Series* **549**, 012023-1-012023-10 (2014)

Motin Seikh M., Caignaert V., Suard E., Preethi Meher K.R.S., Maignan A., Raveau B. Closely related magnetic and dielectric transitions in the "114" magnetoelectric Zn-doped  $\text{CaBaCo}_4\text{O}_7$   
*Journal of Applied Physics* **116**, 244106-1-244106-7 (2014)

Mudge M., Ng B.K., Onie C.J., Bhadbhade M., Mole R.A., Rule K.C., Stampfl A.P.J., Stride J.A. What difference does a methyl group make: Pentamethylbenzene?  
*ChemPhysChem* **15**, 3776-3781 (2014)

Orlandi F., Righi L., Cabassi R., Delmonte D., Pernechele C., Bolzoni F., Mezzadri F., Solzi M., Merlini M., Calestani G. Structural and electric evidence of ferroelectric state in  $\text{Pb}_2\text{MnWO}_6$  double perovskite system  
*Inorganic Chemistry* **53**, 10283-10290 (2014)

Padilla-Pantoja J., García-Muñoz J.L., Bozzo B., Jirák Z., Herrero-Martín J. Structural properties and singular phase transitions of metallic  $\text{Pr}_{0.50}\text{Sr}_{0.50}\text{CoO}_3$  cobaltite  
*Inorganic Chemistry* **53**, 12297-12304 (2014)

Pedersen M.C., Hansen S.L., Markussen B., Arleth L., Mortensen K. Quantification of the information in small-angle scattering data  
*Journal of Applied Crystallography* **47**, 2000-2010 (2014)

Verbraeken M.C., Cheung C., Suard E., Irvine J.T.S. High  $\text{H}^-$  ionic conductivity in barium hydride  
*Nature Materials* **14**, 95-100 (2014)

---

## Liquids and Glasses

---

Audonnet F., Brodie-Linder N., Morineau D., Frick B., Alba-Simionesco C. From the capillary condensation to the glass transition of a confined molecular liquid: Case of toluene  
*Journal of Non-Crystalline Solids* **407**, 262-269 (2015)

Boffy R., Kreuz M., Beaucour J., Köster U., Bermejo F.J. Why neutron guides may end up breaking down? Some results on the macroscopic behaviour of alkali-borosilicate glass support plates under neutron irradiation  
*Nuclear Instruments and Methods in Physics Research B* **358**, 179-187 (2015)

Bossy J., Schober H., Glyde H.R. Localized Bose-Einstein condensation in disordered liquid  $^4\text{He}$  films  
*Physical Review B* **91**, 094201-1-094201-13 (2015)

Faber C., Boulanger P., Attacalite C., Cannuccia E., Duchemin I., Deutsch T., Blase X. Exploring approximations to the GW self-energy ionic gradients  
*Physical Review B* **91**, 155109-1-155109-9 (2015)

Burankova T., Hempelmann R., Fossog V., Ollivier J., Seydel T., Embs J.P. Proton diffusivity in the protic ionic liquid triethylammonium triflate probed by quasielastic neutron scattering  
*Journal of Physical Chemistry B* **119**, 10643-10651 (2015)

Colognesi D., Bafle U., Celli M., Neumann M., Orecchini A. Hydrogen self-dynamics in liquid  $\text{H}_2\text{-D}_2$  mixtures studied through inelastic neutron scattering  
*Physical Review E* **92**, 012311-1-012311-16 (2015)

Crupi C., Carini G., González M., D'Angelo G. Origin of the first sharp diffraction peak in glasses  
*Physical Review B* **92**, 134206-1-134206-7 (2015)

- Demmel F., Szubrin D., Pilgrim W.C., De Francesco A., Formisano F. Transition from hydrodynamic to viscoelastic propagation of sound in molten RbBr  
Physical Review E **92**, 012307-1-012307-11 (2015)
- Döge S., Hérold C., Müller S., Morkel C., Gutmiedl E., Geltenbort P.G., Lauer T., Fierlinger P., Petry W., Böni P. Scattering cross sections of liquid deuterium for ultracold neutrons: Experimental results and a calculation model  
Physical Review B **91**, 214309-1-214309-9 (2015)
- Farhi E., Ferran G., Haeck W., Pellegrini E., Calzavara Y. Light and heavy water dynamic structure factor for neutron transport codes  
Journal of Nuclear Science and Technology **52**, 844-856 (2015)
- Fathi S., González M.A., Bahri M., Nasr S., Bellissent-Funel M.C. Structural investigation of liquid formic acid by X-ray and neutron scattering, *ab initio* calculations and molecular dynamics simulations  
Journal of Molecular Liquids **207**, 125-135 (2015)
- Flores-Ruiz H., Micoulaut M., Coulet M.V., Piarristeguy A.A., Johnson M.R., Cuello G.J., Pradel A. Effect of tellurium concentration on the structural and vibrational properties of phase-change Ge-Sb-Te liquids  
Physical Review B **92**, 134205-1-134205-15 (2015)
- Formisano F., De Panfilis S. Comment on "Boson peak in deeply cooled confined water: A possible way to explore the existence of the liquid-to-liquid transition in water"  
Physical Review Letters **115**, 149801-1-149801-2 (2015)
- Georgarakis K., Hennem L., Evangelakis G.A., Antonowicz J., Bokas G.B., Honkimäki V., Bytchkov A., Chen M.W., Yavari A.R. Probing the structure of a liquid metal during vitrification  
Acta Materialia **87**, 174-186 (2015)
- Guarini E., Neumann M., Bafile U., Celli M., Colognesi D., Farhi E., Calzavara Y. Velocity autocorrelation in liquid parahydrogen by quantum simulations for direct parameter-free computations of neutron cross sections  
Physical Review B **92**, 104303-1-104303-8 (2015)
- Kiwilsza A., Pajzderska A., Gonzalez M.A., Mielcarek J., Wąsicki J. QENS and NMR study of water dynamics in SBA-15 with a low water content  
Journal of Physical Chemistry C **119**, 16578-16586 (2015)
- Kohagen M., Pluhařová E., Mason P.E., Jungwirth P. Exploring ion-ion interactions in aqueous solutions by a combination of molecular dynamics and neutron scattering  
Journal of Physical Chemistry Letters **6**, 1563-1567 (2015)
- Ludl A.A., Bove L.E., Saitta A.M., Salanne M., Hansen T.C., Bull C.L., Gaal R., Klotz S. Structural characterization of eutectic aqueous NaCl solutions under variable temperature and pressure conditions  
Physical Chemistry Chemical Physics **17**, 14054-14063 (2015)
- Marmeggi J.C., Haen P., Filhol A., Bastie P. CDW-gaps, soft-phonons and physical transitions in bulk single crystal of alpha-Uranium  
Journal of Physics: Conference Series **592**, 012035-1-012035-6 (2015)
- Mason P.E., Ansell S., Neilson G.W., Rempe S.B. Neutron scattering studies of the hydration structure of Li<sup>+</sup>  
Journal of Physical Chemistry B **119**, 2003-2009 (2015)
- Meyer A. The measurement of self-diffusion coefficients in liquid metals with quasielastic neutron scattering  
EPJ Web of Conferences **83**, 01002-1-01002-7 (2015)
- Morin C., Corallini S., Carreaud J., Vaney J.B., Delaizir G., Crivello J.C., Branco Lopes E., Piarristeguy A., Monnier J., Candolfi C., Nassif V., Cuello G.J., Pradel A., Pereira Goncalves A., Lenoir B., Alleno E. Polymorphism in thermoelectric As<sub>2</sub>Te<sub>3</sub>  
Inorganic Chemistry **54**, 9936-9947 (2015)
- Ngai K.L., Capaccioli S., Prevosto D., Wang L.M. Coupling of caged molecule dynamics to JG  $\beta$ -relaxation III: van der Waals glasses  
Journal of Physical Chemistry B **119**, 12519-12525 (2015)
- Raghuwanshi V.S., Harizanova R., Tatchev D., Hoell A., Rüssel C. Structural analysis of Fe-Mn-O nanoparticles in glass ceramics by small angle scattering  
Journal of Solid State Chemistry **222**, 103-110 (2015)
- Rodriguez Palomino L.A., Stunault A., Dawidowski J., Temleitner L., Pusztai L., Cuello G.J. A Monte Carlo simulation code applied to diffraction experiments with polarization analysis  
Journal of Physics: Conference Series **663**, 012002-1-012002-10 (2015)
- Salmon P.S., Zeidler A. Networks under pressure: The development of *in situ* high-pressure neutron diffraction for glassy and liquid materials  
Journal of Physics: Condensed Matter **27**, 133201-1-133201-32 (2015)
- Swainson I.P., Stock C., Parker S.F., van Eijck L., Russina M., Taylor J.W. From soft harmonic phonons to fast relaxational dynamics in CH<sub>3</sub>NH<sub>3</sub>PbBr<sub>3</sub>  
Physical Review B **92**, 100303-1-100303-5 (2015)
- Taddei M., Ruggeri M., Moroni S., Holzmann M. Iterative backflow renormalization procedure for many-body ground-state wave functions of strongly interacting normal Fermi liquids  
Physical Review B **91**, 115106-1-115106-7 (2015)

## PUBLICATIONS

Temleitner L., Stunault A., Cuello G.J., Pusztai L. Neutron diffraction of hydrogenous materials: Measuring incoherent and coherent intensities separately

Physical Review B **92**, 014201-1-014201-6 (2015)

Vdovichenko G.A., Krivchikov A.I., Korolyuk O.A., Tamarit J.L., Pardo L.C., Rovira-Esteva M., Bermejo F.J., Hassaine M., Ramos M.A. Thermal properties of halogen-ethane glassy crystals: Effects of orientational disorder and the role of internal molecular degrees of freedom

Journal of Chemical Physics **143**, 084510-1-084510-10 (2015)

Wong K., Chen C., Koza M.M., Samwer K., Chathoth S.M. Atomic caging in multicomponent glass-forming metallic liquids

Europhysics Letters **110**, 46001-p1-46001-p5 (2015)

Wright A.C., Sinclair R.N., Stone C.E., Shaw J.L., Feller S.A., Williams R.B., Fischer H.E. A neutron diffraction study of six  $M_2O.M'_2O.5B_2O_3$  mixed-modifier di-pentaborate glasses

Physics and Chemistry of Glasses **56**, 85-97 (2015)

Zanatta M., Sacchetti F., Guarini E., Orecchini A., Paciaroni A., Sani L., Petrillo C. Collective ion dynamics in liquid zinc: Evidence for complex dynamics in a non-free-electron liquid metal

Physical Review Letters **114**, 187801-1-187801-5 (2015)

Zeidler A., Chirawatkul P., Salmon P.S., Usuki T., Kohara S., Fischer H.E., Howells W.S. Structure of the network glass-former  $ZnCl_2$ : From the boiling point to the glass

Journal of Non-Crystalline Solids **407**, 235-245 (2015)

---

## Magnetic Excitations

---

Adroja D.T., De La Fuente C., Fraile A., Hillier A.D., Daoud-Aladine A., Kockelmann W., Taylor J.W., Koza M.M., Burzuri E., Luis F., Arnaudus J.I., Del Moral A. Muon spin rotation and neutron scattering study of the noncentrosymmetric tetragonal compound  $CeAuAl_3$

Physical Review B **91**, 134425-1-134425-12 (2015)

Baker M.L., Blundell S.J., Domingo N., Hill S. Spectroscopy methods for molecular nanomagnets

Structure and Bonding **164**, 231-291 (2015)

Bera A.K., Lake B., Islam A.T.M.N., Janson O., Rosner H., Schneidewind A., Park J.T., Wheeler E., Zander S. Consequences of critical interchain couplings and anisotropy on a Haldane chain

Physical Review B **91**, 144414-1-144414-11 (2015)

Bera A.K., Yusuf S.M., Meena S.S., Sow C., Kumar P.S.A., Banerjee S. Controlling structural distortion in the geometrically frustrated layered cobaltate  $YBaCo_4O_{7.8}$  by Fe substitution and its role on magnetic correlations

Materials Research Express **2**, 026102-1-026102-13 (2015)

Boldrin D., Fåk B., Enderle M., Bieri S., Ollivier J., Rols S., Manuel P., Wills A.S.  $Yb_2Te_3$ : A spin- $\frac{1}{2}$  kagome ferromagnet

Physical Review B **91**, 220408-1-220408-5 (2015)

Canévet E., Fåk B., Kremer R.K., Chun J.H., Enderle M., Gordon E.E., Bettis J.L., Whangbo M.H., Taylor J.W., Adroja D.T. Spin excitations in the two-dimensional strongly coupled dimer system malachite

Physical Review B **91**, 060402-1-060402-5 (2015)

Castro M., Roubeau O., Piñeiro-López L., Real J.A., Rodríguez-Velamazán J.A. Pulsed-laser switching in the bistability domain of a cooperative spin crossover compound: A critical study through calorimetry

Journal of Physical Chemistry C **119**, 17334-17343 (2015)

Chapon L.C., Habicht K. Review of Neutrons et Magnétisme

Neutron News **26**, 28 (2015)

d'Ambrumenil N., Petrenko O.A., Mutka H., Deen P.P. Dispersionless spin waves and underlying field-induced magnetic order in gadolinium gallium garnet

Physical Review Letters **114**, 227203-1-227203-5 (2015)

Damay F., Poiénar M., Hervieu M., Guesdon A., Bourgeois J., Hansen T., Elkaim E., Haines J., Hermet P., Konczewicz L., Hammouda T., Rouquette J., Martin C. High-pressure polymorph of  $LuFe_2O_4$  with room-temperature antiferromagnetic order

Physical Review B **91**, 214111-1-214111-9 (2015)

Deen P.P., Florea O., Lhotel E., Jacobsen H. Updating the phase diagram of the archetypal frustrated magnet  $Gd_3Ga_5O_{12}$

Physical Review B **91**, 014419-1-014419-9 (2015)

Gaw S.M., Lewtas H.J., McMorrow D.F., Kulda J., Ewings R.A., Perring T.G., McKinnon R.A., Balakrishnan G., Prabhakaran D., Boothroyd A.T. Magnetic excitation spectrum of  $LuFe_2O_4$  measured with inelastic neutron scattering

Physical Review B **91**, 035103-1-035103-11 (2015)

Grenier B., Petit S., Simonet V., Canévet E., Regnault L.P., Raymond S., Canals B., Berthier C., Lejay P. Longitudinal and transverse Zeeman ladders in the ising-like chain antiferromagnet  $BaCo_2V_2O_8$

Physical Review Letters **114**, 017201-1-017201-5 (2015)

Grigoriev P.D., Kostenko S.S. Conductivity anisotropy helps to reveal the microscopic structure of a density wave at imperfect nesting

Physica B **460**, 26-29 (2015)

- Holbein S., Steffens P., Finger T., Komarek A.C., Sidis Y., Link P., Braden M. Field and temperature dependence of electromagnon scattering in  $\text{TbMnO}_3$  studied by inelastic neutron scattering  
*Physical Review B* **91**, 014432-1-014432-7 (2015)
- Huesges Z., Koza M.M., Embs J.P., Fennell T., Simeoni G., Geibel C., Krellner C., Stockert O. Ferromagnetic fluctuations in  $\text{YbNi}_4\text{P}_2$  measured by inelastic neutron scattering  
*Journal of Physics: Conference Series* **592**, 012083-1-012083-5 (2015)
- Iannuzzi M., Messi R., Moricciani D., Orecchini A., Sacchetti F. Progress towards Bell-type polarization experiment with thermal neutrons  
*Physical Review A* **91**, 020102-1-020102-5 (2015)
- Jørgensen J.E., Hansen T.C. Pressure-induced successive magnetic and structural phase transitions in  $\text{Fe}_{1.087}\text{Te}$   
*European Physical Journal B* **88**, 119-1-119-8 (2015)
- Klanjšek M., Horvatić M., Krämer S., Mukhopadhyay S., Mayaffre H., Berthier C., Canévet E., Grenier B., Lejay P., Orignac E. Giant magnetic field dependence of the coupling between spin chains in  $\text{BaCo}_2\text{V}_2\text{O}_8$   
*Physical Review B* **92**, 060408-1-060408-6 (2015)
- Krannich S., Sidis Y., Lamago D., Heid R., Mignot J.M., Löhneysen H.V., Ivanov A., Steffens P., Keller T., Wang L., Goering E., Weber F. Magnetic moments induce strong phonon renormalization in  $\text{FeSi}$   
*Nature Communications* **6**, 8961-1-8961-7 (2015)
- Lançon D., Tsyulin N., Böhm M., Viennois R., Zabihzadeh S., Kusmartseva A., Giannini E., Rønnow H.M. Pressure induced evolution of superconductivity and magnetic hourglass dispersion in  $\text{Fe}_{1.02}\text{Te}_{0.7}\text{Se}_{0.3}$   
*New Journal of Physics* **17**, 043020-1-043020-5 (2015)
- Man H., Lu X., Chen J.S., Zhang R., Zhang W., Luo H., Kulda J., Ivanov A., Keller T., Morosan E., Si Q., Dai P. Electronic nematic correlations in the stress-free tetragonal state of  $\text{BaFe}_{2-x}\text{Ni}_x\text{As}_2$   
*Physical Review B* **92**, 134521-1-134521-9 (2015)
- Marik S., Santos-García A.J.D., Labrugere C., Morán E., Toulemonde O., Alario-Franco M.A. Oxidation induced superconductivity and Mo/Cu charge equilibrium in  $\text{Mo}_{0.3}\text{Cu}_{0.7}\text{Sr}_2\text{ErCu}_2\text{O}_y$   
*Superconductor Science and Technology* **28**, 045007-1-045007-10 (2015)
- Marinova M., Rault J.E., Gloter A., Nemsak S., Pálsson G.K., Rueff J.P., Fadley C.S., Carrétero C., Yamada H., March K., Garcia V., Fusil S., Barthélémy A., Stéphan O., Colliex C., Bibes M. Depth profiling charge accumulation from a ferroelectric into a doped Mott insulator  
*Nano Letters* **15**, 2533-2541 (2015)
- Nilsen G.J., Okamoto Y., Masuda T., Rodriguez-Carvajal J., Mutka H., Hansen T., Hiroi Z. Complex magnetostructural order in the frustrated spinel  $\text{LiInCr}_4\text{O}_8$   
*Physical Review B* **91**, 174435-1-174435-8 (2015)
- Nilsen G.J., Thompson C.M., Ehlers G., Marjerrison C.A., Greedan J.E. Diffuse magnetic neutron scattering in the highly frustrated double perovskite  $\text{Ba}_2\text{YRuO}_6$   
*Physical Review B* **91**, 054415-1-054415-10 (2015)
- Pedersen K.S., Dreiser J., Weihe H., Sibille R., Johannesen H.V., Sørensen M.A., Nielsen B.E., Sigrist M., Mutka H., Rols S., Bendix J., Piligkos S. Design of single-molecule magnets: Insufficiency of the anisotropy barrier as the sole criterion  
*Inorganic Chemistry* **54**, 7600-7606 (2015)
- Petit S., Guitteny S., Robert J., Bonville P., Decorse C., Ollivier J., Mutka H., Mirebeau I. Spin dynamics in highly frustrated pyrochlore magnets  
*EPJ Web of Conferences* **83**, 03012-1-03012-7 (2015)
- Piazza B.D., Mourigal M., Christensen N.B., Nilsen G.J., Tregenna-Piggott P., Perring T.G., Enderle M., McMorro D.F., Ivanov D.A., Rønnow H.M. Fractional excitations in the square-lattice quantum antiferromagnet  
*Nature Physics* **11**, 62-68 (2015)
- Pregelj M., Zorko A., Zaharko O., Nojiri H., Berger H., Chapon L.C., Arçon D. Spin-stripe phase in a frustrated zigzag spin-1/2 chain  
*Nature Communications* **6**, 7255-1-7255-8 (2015)
- Rinaldi-Montes N., Gorria P., Martínez-Blanco D., Fuertes A.B., Ferná Barquín L., Puente-Orench I., Blanco J.A. Scrutinizing the role of size reduction on the exchange bias and dynamic magnetic behavior in NiO nanoparticles  
*Nanotechnology* **26**, 305705-1-305705-14 (2015)
- Rojas D.P., Fernández Barquín L., Sánchez Marcos J., Echevarria-Bonet C., Espeso J.I., Rodríguez Fernandez J., Rodríguez Fernandez L., Mathon M.H. Magnetic disorder in  $\text{TbAl}_2$  nanoparticles  
*Materials Research Express* **2**, 075001-1-075001-9 (2015)
- Seredyuk M., Piñero-López L., Muñoz M.C., Martínez-Casado F.J., Molnár G., Rodríguez-Velamazán J.A., Bousseksou A., Real J.A. Homoleptic iron(III) complexes with the ionogenic ligand  $\delta,\delta'$ -bis(1H-tetrazol-5-yl)-2,2'-bipyridine: Spin crossover behavior in a singular 2D spin crossover coordination polymer  
*Inorganic Chemistry* **54**, 7424-7432 (2015)
- Sigrist M., Tregenna-Piggott P.L.W., Pedersen K.S., Sorensen M.A., Barra A.L., Hauser J., Liu S.X., Decurtins S., Mutka H., Bendix J. Zero-field splitting in  $\{\text{Mn}^{\text{III}}(\mu_3\text{-O})\}$  core single-molecule magnets investigated by inelastic neutron scattering and high-field electron paramagnetic resonance spectroscopy  
*European Journal of Inorganic Chemistry* **2015**, 2683-2689 (2015)

## PUBLICATIONS

Skoulatos M., Toth S., Roessli B., Enderle M., Habicht K., Sheptyakov D., Cervellino A., Freeman P.G., Reehuis M., Stunault A., McIntyre G.J., Tung L.D., Marjerrison C., Pomjakushina E., Brown P.J., Khomskii D.I., Rüegg C., Kreyssig A., Goldman A.I., Goff J.P. Jahn-Teller versus quantum effects in the spin-orbital material  $\text{LuVO}_3$  *Physical Review B* **91**, 161104-1-161104-5 (2015)

Stock C., Rodriguez-Rivera J.A., Schmalzl K., Rodriguez E.E., Stunault A., Petrovic C. Single to multi-quasiparticle excitations in the itinerant helical magnet  $\text{CeRhIn}_5$  *Physical Review Letters* **114**, 247005-1-247005-6 (2015)

Stone M.B., Lumsden M.D., Garlea V.O., Grenier B., Ressouche E., Samulon E.C., Fisher I.R. Field-induced spin density wave and spiral phases in a layered antiferromagnet *Physical Review B* **92**, 020415-1-020415-5 (2015)

Tartakovskaya E.V. Field induced spin chirality and chirality switching in magnetic multilayers *Journal of Magnetism and Magnetic Materials* **381**, 267-270 (2015)

Toyoda M., Saito T., Yamauchi K., Shimakawa Y., Oguchi T. Superexchange interaction in the A-site ordered perovskite  $\text{YMn}_3\text{Al}_4\text{O}_{12}$  *Physical Review B* **92**, 014420-1-014420-7 (2015)

Urcelay-Olabarria I., García-Muñoz J.L., Mukhin A.A. Field effects with H11b on the incommensurate magnetic structures of multiferroic  $\text{MnWO}_4$  studied within the superspace formalism *Physical Review B* **91**, 104429-1-104429-7 (2015)

Wildman E.J., Sher F., McLaughlin A.C. Absence of colossal magnetoresistance in the oxypnictide  $\text{PrMnAsO}_{0.95}\text{F}_{0.05}$  *Inorganic Chemistry* **54**, 2536-2542 (2015)

Clark L., Nilsen G.J., Kermarrec E., Ehlers G., Knight K.S., Harrison A., Attfield J.P., Gaulin B.D. From spin glass to quantum spin liquid ground states in molybdate pyrochlores *Physical Review Letters* **113**, 117201-1-117201-5 (2014)

Drees Y., Li Z.W., Ricci A., Rotter M., Schmidt W., Lamago D., Sobolev O., Rütt U., Gutowski O., Sprung M., Piovano A., Castellán J.P., Komarek A.C. Hour-glass magnetic excitations induced by nanoscopic phase separation in cobalt oxides *Nature Communications* **5**, 5731-1-5731-9 (2014)

Kepa M.W., Sokolov D.A., Böhm M., Huxley A.D. Magnetic excitations in the ferromagnetic superconductor  $\text{UGe}_2$  under pressure *Journal of Physics: Conference Series* **568**, 042016-1-042016-4 (2014)

Lázpita P., Gutiérrez J., Barandiarán J.M., Chernenko V.A., Mondelli C., Chapon L. Magnetic moment distribution modeling in non stoichiometric Ni-Mn-Ga ferromagnetic shape memory alloys *Journal of Physics: Conference Series* **549**, 012016-1-012016-5 (2014)

Le M.D., McEwen K.A., Rotter M., Doerr M., Barcza A., Park J.G., Brooks J., Jobilong E., Fort D. Mean-field model for the quadrupolar phases of  $\text{UPd}_3$  *Physical Review B* **89**, 235114-1-235114-11 (2014)

McCabe E.E., Stock C., Bettis J.L., Whangbo M.H., Evans J.S.O. Magnetism of the  $\text{Fe}^{2+}$  and  $\text{Ce}^{3+}$  sublattices in  $\text{Ce}_2\text{O}_2\text{FeSe}_2$ : A combined neutron powder diffraction, inelastic neutron scattering, and density functional study *Physical Review B* **90**, 235115-1-235115-12 (2014)

McCabe E.E., Stock C., Rodriguez E.E., Wills A.S., Taylor J.W., Evans J.S.O. Weak spin interactions in Mott insulating  $\text{La}_2\text{O}_2\text{Fe}_2\text{OSe}_2$  *Physical Review B* **89**, 100402-1-100402-5 (2014)

Zhang J., Fritsch K., Hao Z., Bagheri B.V., Gingras M.J.P., Granroth G.E., Jiramongkolchai P., Cava R.J., Gaulin B.D. Neutron spectroscopic study of crystal field excitations in  $\text{Tb}_2\text{Ti}_2\text{O}_7$  and  $\text{Tb}_2\text{Sn}_2\text{O}_7$  *Physical Review B* **89**, 134410-1-134410-11 (2014)

---

## Magnetic Structures

---

Adroja D.T., Hillier A.D., Ritter C., Bhattacharyya A., Khalyavin D.D., Strydom A.M., Peratheepan P., Fåk B., Koza M.M., Kawabata J., Yamada Y., Okada Y., Muro Y., Takabatake T., Taylor J.W. Contrasting effect of La substitution on the magnetic moment direction in the Kondo semiconductors  $\text{CeT}_2\text{Al}_{10}$  (T = Ru, Os) *Physical Review B* **92**, 094425-1-094425-10 (2015)

Aljaber A.D., Irvine J.T.S. Crystal structure of A-site deficient  $\text{La}_{0.2}\text{Sr}_{0.7x}\text{Ca}_x\text{TiO}_3$  perovskite at ambient conditions and high temperatures: A neutron powder diffraction study *Dalton Transactions* **44**, 10828-10833 (2015)

Anand V.K., Bera A.K., Xu J., Herrmannsdörfer T., Ritter C., Lake B. Observation of long-range magnetic ordering in pyrohafnate  $\text{Nd}_2\text{Hf}_2\text{O}_7$ : A neutron diffraction study *Physical Review B* **92**, 184418-1-184418-10 (2015)

Andreeva M., Gupta A., Sharma G., Kamali S., Okada K., Yoda Y. Field-induced spin reorientation in  $[\text{Fe}/\text{Cr}]_n$  multilayers studied by nuclear resonance reflectivity *Physical Review B* **92**, 134403-1-134403-12 (2015)

Arslanov T.R., Mollaev A.Y., Kamilov I.K., Arslanov R.K., Kilanski L., Minikaev R., Reszka A., López-Moreno S., Romero A.H., Ramzan M., Panigrahi P., Ahuja R., Trukhan V.M., Chatterji T., Marenkin S.F., Shoukavaya T.V. Pressure control of magnetic clusters in strongly inhomogeneous ferromagnetic chalcopyrites *Scientific Reports* **5**, 7720-1-7720-6 (2015)

- Auckett J.E., McIntyre G.J., Avdeev M., De Bruyn H., Tan T.C., Li S., Ling C.D. Neutron Laue diffraction study of the complex low-temperature magnetic behaviour of brownmillerite-type  $\text{Ca}_2\text{Fe}_2\text{O}_5$  *Journal of Applied Crystallography* **48**, 273-279 (2015)
- Aurelio G., Curiale J., Bardelli F., Junqueira Prado R., Hennem L., Cuello G., Campo J., Thiaudière D. Substitution site and effects on magnetism in Sr-for-Ca substituted  $\text{CaBaCo}_4\text{O}_7$  *Journal of Applied Physics* **118**, 134101-1-134101-9 (2015)
- Avdeev M.V., Petrenko V.I., Gapon I.V., Bulavin L.A., Vorobiev A.A., Soltwedel O., Balasoiu M., Vekas L., Zavisova V., Kopcanský P. Comparative structure analysis of magnetic fluids at interface with silicon by neutron reflectometry *Applied Surface Science* **352**, 49-53 (2015)
- Azcondo M.T., Romero De Paz J., Boulahya K., Ritter C., García-Alvarado F., Amador U. Complex magnetic behaviour of  $\text{Sr}_2\text{CoNb}_{1-x}\text{Ti}_x\text{O}_6$  ( $0 \leq x \leq 0.5$ ) as a result of a flexible microstructure *Dalton Transactions* **44**, 3801-3810 (2015)
- Barandiarán J.M., Chernenko V.A., Lázpita P., Gutiérrez J., Fdez-Gubieda M.L., Kimura A. Neutron and synchrotron studies of structure and magnetism of shape memory alloys *Journal of Physics: Conference Series* **663**, 012014-1-012014-9 (2015)
- Baum M., Komarek A.C., Holbein S., Fernández-Díaz M.T., André G., Hiess A., Sidis Y., Steffens P., Becker P., Bohatý L., Braden M. Magnetic structure and multiferroic coupling in pyroxene  $\text{NaFeSi}_2\text{O}_6$  *Physical Review B* **91**, 214415-1-214415-11 (2015)
- Bertin A., Dalmas de Réotier P., Fåk B., Marin C., Yaouanc A., Forget A., Sheptyakov D., Frick B., Ritter C., Amato A., Baines C., King P.J.C.  $\text{Nd}_2\text{Sn}_2\text{O}_7$ : An all-in-all-out pyrochlore magnet with no divergence-free field and anomalously slow paramagnetic spin dynamics *Physical Review B* **92**, 144423-1-144423-6 (2015)
- Blasco J., García-Muñoz J.L., García J., Stankiewicz J., Subías G., Ritter C., Rodríguez-Velamazán J.A. Evidence of large magneto-dielectric effect coupled to a metamagnetic transition in  $\text{Yb}_2\text{CoMnO}_6$  *Applied Physics Letters* **107**, 012902-1-012902-5 (2015)
- Brok E., Lefmann K., Deen P.P., Lebeck B., Jacobsen H., Nilsen G.J., Keller L., Frandsen C. Polarized neutron powder diffraction studies of antiferromagnetic order in bulk and nanoparticle  $\text{NiO}$  *Physical Review B* **91**, 014431-1-014431-11 (2015)
- Brüssing F., Toperverg B.P., Devishvili A., Badini Confalonieri G.A., Theis-Bröhl K., Zabel H. Laterally patterned spin-valve superlattice: Magnetometry and polarized neutron scattering study *Journal of Applied Physics* **117**, 133903-1-133903-10 (2015)
- Čermák P., Prokeš K., Ouladdiaf B., Boehm M., Kratochvílová M., Javorský P. Magnetic structures in the magnetic phase diagram of  $\text{Ho}_2\text{RhIn}_8$  *Physical Review B* **91**, 144404-1-144404-9 (2015)
- Chatterji T., Dos Santos A.M., Molaison J.J., Hansen T.C., Klotz S., Tucker M., Samanta K., Saha-Dasgupta T. Anomalous breakdown of Bloch's rule in the Mott-Hubbard insulator  $\text{MnTe}_2$  *Physical Review B* **91**, 104412-1-104412-7 (2015)
- Deutsch M., Hansen T.C., Fernandez-Diaz M.T., Forget A., Colson D., Porcher F., Mirebeau I. Pressure-induced commensurate phase with potential giant polarization in  $\text{YMn}_2\text{O}_5$  *Physical Review B* **92**, 060410-1-060410-5 (2015)
- Dos Santos-García A.J., Solana-Madruga E., Ritter C., Avila-Brandé D., Fabelo O., Saéz-Puche R. Synthesis, structures and magnetic properties of the dimorphic  $\text{Mn}_2\text{CrSbO}_6$  oxide *Dalton Transactions* **44**, 10665-10672 (2015)
- Estrader M., López-Ortega A., Golosovsky I.V., Estradé S., Roca A.G., Salazar-Alvarez G., López-Conesa L., Tobia D., Winkler E., Ardisson J.D., Macedo W.A.A., Morphis A., Vasilakaki M., Trohidou K.N., Gukasov A., Mirebeau I., Makarova O.L., Zysler R.D., Peiró F., Baró M.D., Bergström L., Nogués J. Origin of the large dispersion of magnetic properties in nanostructured oxides:  $\text{Fe}_x\text{O}/\text{Fe}_3\text{O}_4$  nanoparticles as a case study *Nanoscale* **7**, 3002-3015 (2015)
- Fenske J., Lott D., Tartakovskaya E.V., Lee H., LeClair P.R., Mankey G.J., Schmidt W., Schmalzl K., Klose F., Schreyer A. Magnetic order and phase transitions in  $\text{Fe}_{50}\text{Pt}_{50-x}\text{Rh}_x$  *Journal of Applied Crystallography* **48**, 1142-1158 (2015)
- Frandsen B.A., Billinge S.J.L. Magnetic structure determination from the magnetic pair distribution function (mPDF): Ground state of  $\text{MnO}$  *Acta Crystallographica A* **71**, 325-334 (2015)
- Grenier B., Simonet V., Canals B., Lejay P., Klanjšek M., Horvatic M., Berthier C. Neutron diffraction investigation of the HT phase diagram above the longitudinal incommensurate phase of  $\text{BaCo}_2\text{V}_2\text{O}_8$  *Physical Review B* **92**, 134416-1-134416-7 (2015)
- Guidi T., Gillon B., Mason S.A., Garlatti E., Carretta S., Santini P., Stunault A., Caciuffo R., van Slageren J., Klemke B., Cousson A., Timco G.A., Winpenny R.E.P. Direct observation of finite size effects in chains of antiferromagnetically coupled spins *Nature Communications* **6**, 7061-1-7061-6 (2015)
- Guitteny S., Mirebeau I., Dalmas de Réotier P., Colin C.V., Bonville P., Porcher F., Grenier B., Decorse C., Petit S. Mesoscopic correlations in  $\text{Tb}_2\text{Ti}_2\text{O}_7$  spin liquid *Physical Review B* **92**, 144412-1-144412-10 (2015)

## PUBLICATIONS

- Guo H., Schmidt W., Tjeng L.H., Komarek A.C. Charge correlations in cobaltates  $\text{La}_{2-x}\text{Sr}_x\text{CoO}_4$   
*Physica Status Solidi-Rapid Research Letters* **9**, 580-582 (2015)
- Hartwig S., Prokeš K., Hansen T., Ritter C., Gerke B., Pöttgen R., Mydosh J.A., Förster T. Complex antiferromagnetic structure in the intermediate-valence intermetallic  $\text{Ce}_2\text{RuZn}_4$   
*Physical Review B* **92**, 024420-1-024420-8 (2015)
- Hills V., Wadley P., Campion R.P., Novak V., Beardsley R., Edmonds K.W., Gallagher B.L., Ouladdiaf B., Jungwirth T. Paramagnetic to antiferromagnetic transition in epitaxial tetragonal  $\text{CuMnAs}$  (invited)  
*Journal of Applied Physics* **117**, 172608-1-172608-2 (2015)
- Kézsmárki I., Bordács S., Milde P., Neuber E., Eng L.M., White J.S., Rønnow H.M., Dewhurst C.D., Mochizuki M., Yanai K., Nakamura F., Ehlers D., Tsurkan V., Loidl A. Néel-type skyrmion lattice with confined orientation in the polar magnetic semiconductor  $\text{GaV}_4\text{S}_8$   
*Nature Materials* **14**, 1116-1122 (2015)
- Kimber S.A.J., Chatterji T. Spin-driven symmetry breaking in the frustrated fcc pyrite  $\text{MnS}_2$   
*Journal of Physics: Condensed Matter* **27**, 226003-1-226003-5 (2015)
- Klicpera M., Javorský P., Čermák P., Schneidewind A., Ouladdiaf B., Diviš M. Neutron scattering study of magnetic order in single-crystalline  $\text{CeCuAl}_3$   
*Physical Review B* **91**, 224419-1-224419-6 (2015)
- Laslo A., Pop V., Isnard O. Influence of Al on the magnetic properties of  $\text{TmCo}_4\text{Al}$  compound, a magnetic and neutron diffraction study  
*Journal of Alloys and Compounds* **626**, 70-75 (2015)
- Lefrancois E., Simonet V., Ballou R., Lhotel E., Hadj-Azzem A., Kodjikian S., Lejay P., Manuel P., Khalyavin D., Chapon L.C. Anisotropy-tuned magnetic order in pyrochlore iridates  
*Physical Review Letters* **114**, 247202-1-247202-5 (2015)
- Li H.F., Cao C., Wildes A., Schmidt W., Schmalzl K., Hou B., Regnault L.P., Zhang C., Meuffels P., Löser W., Roth G. Distinct itinerant spin-density waves and local-moment antiferromagnetism in an intermetallic  $\text{ErPd}_2\text{Si}_2$  single crystal  
*Scientific Reports* **5**, 7968-1-7968-7 (2015)
- Li H.F., Senyshyn A., Fabelo O., Persson J., Hou B., Boehm M., Schmalzl K., Schmidt W., Vassalli J.P., Thakuria P., Sun X., Wang L., Khazaradze G., Schmitz B., Zhang C., Roth G., Garcia Roca J., Wildes A. Absence of magnetic ordering in the ground-state of a  $\text{SrTm}_2\text{O}_4$  single crystal  
*Journal of Materials Chemistry C* **3**, 7658-7668 (2015)
- Li W., Gurlo A., Riedel R., Ionescu E. Perovskite-type solid solution  $\text{SrMo}_{1-x}\text{V}_x(\text{O}, \text{N})_3$  oxynitrides: Synthesis, structure, and magnetic properties  
*Zeitschrift für Anorganische und Allgemeine Chemie* **641**, 1533-1539 (2015)
- Mangin-Thro L., Sidis Y., Wildes A., Bourges P. Intra-unit-cell magnetic correlations near optimal doping in  $\text{YBa}_2\text{Cu}_3\text{O}_{6.85}$   
*Nature Communications* **6**, 7705-1-7705-7 (2015)
- Mazzone D.G., Gavilano J.L., Sibille R., Ramakrishnan M., Dewhurst C.D., Kenzelmann M. Distinct vortex-glass phases in  $\text{Yb}_3\text{Rh}_4\text{Sn}_{13}$  at high and low magnetic fields  
*Journal of Physics: Condensed Matter* **27**, 245701-1-245701-5 (2015)
- Michels A., Honecker D., Erokhin S., Berkov D. Comment on "Origin of surface canting within  $\text{Fe}_3\text{O}_4$  nanoparticles"  
*Physical Review Letters* **114**, 149701-1-149701-2 (2015)
- Mishra D., Petracic O., Devishvili A., Theis-Bröhl K., Toperverg B.P., Zabel H. Polarized neutron reflectivity from monolayers of self-assembled magnetic nanoparticles  
*Journal of Physics: Condensed Matter* **27**, 136001-1-136001-9 (2015)
- Monteiro P.M.S., Baker P.J., Hine N.D.M., Steinke N.J., Ionescu A., Cooper J.F.K., Barnes C.H.W., Kinane C.J., Salman Z., Wildes A.R., Prokscha T., Langridge S. Elevated Curie temperature and half-metallicity in the ferromagnetic semiconductor  $\text{La}_x\text{Eu}_{1-x}\text{O}$   
*Physical Review B* **92**, 045202-1-045202-7 (2015)
- Morozkin A.V., Isnard O., Nirmala R., Malik S.K. Magnetic order of  $\text{Tb}_3\text{Co}_{2.2}\text{Si}_{1.8}$  and  $\text{Dy}_3\text{Co}_{2.2}\text{Si}_{1.8}$  as a representative of the family of compounds with orthorhombic distortion of rare earth lattice  
*Journal of Magnetism and Magnetic Materials* **389**, 157-168 (2015)
- Morozkin A.V., Isnard O., Nirmala R., Malik S.K.  $\text{Mo}_2\text{NiB}_2$ -type  $\{\text{Gd}, \text{Tb}, \text{Dy}\}_2\text{Ni}_{2.35}\text{Si}_{0.65}$  and  $\text{La}_2\text{Ni}_3$ -type  $\{\text{Dy}, \text{Ho}\}_2\text{Ni}_{2.5}\text{Si}_{0.5}$  compounds: Crystal structure and magnetic properties  
*Journal of Solid State Chemistry* **225**, 368-377 (2015)
- Nair H.S., Chatterji T., Strydom A.M. Antisite disorder-induced exchange bias effect in multiferroic  $\text{Y}_2\text{CoMnO}_6$   
*Applied Physics Letters* **106**, 022407-1-022407-4 (2015)
- Nair H.S., Fu Z., Kumar C.M.N., Pomjakushin V.Y., Xiao Y., Chatterji T., Strydom A.M. Spin-lattice coupling and frustrated magnetism in Fe-doped hexagonal  $\text{LuMnO}_3$   
*Europhysics Letters* **110**, 37007-1-37007-6 (2015)
- Nilsen G.J., Raja A., Tsirlin A.A., Mutka H., Kasinathan D., Ritter C., Rønnow H.M. One-dimensional quantum magnetism in the anhydrous alum  $\text{KTi}(\text{SO}_4)_2$   
*New Journal of Physics* **17**, 113035-1-113035-8 (2015)

- Paddison J.A.M., Jacobsen H., Petrenko O.A., Fernández-Díaz M.T., Deen P.P., Goodwin A.L. Hidden order in spin-liquid  $\text{Gd}_3\text{Ga}_5\text{O}_{12}$   
*Science* **350**, 179-181 (2015)
- Pereiro J., Saerbeck T., Schuller I.K. Effect of increasing disorder on superconductivity of Mo/Nb superlattices  
*Superconductor Science and Technology* **28**, 085001-1-085001-7 (2015)
- Porter D.G., Cemel E., Voneshen D.J., Refson K., Gutmann M.J., Bombardi A., Boothroyd A.T., Krzton-Maziopa A., Pomjakushina E., Conder K., Goff J.P. Two-dimensional Cs-vacancy superstructure in iron-based superconductor  $\text{Cs}_{0.8}\text{Fe}_{1.6}\text{Se}_2$   
*Physical Review B* **91**, 144114-1-144114-7 (2015)
- Prado F., Abate A., Castillo J.V., Caneiro A., Cuello G. High temperature crystal chemistry of the  $n = 3$  Ruddlesden-Popper phase  $\text{LaSr}_3\text{Fe}_{1.5}\text{Co}_{1.5}\text{O}_{10.6}$   
*Solid State Ionics* **270**, 54-60 (2015)
- Prokeš K., Hartwig S., Stunault A., Isikawa Y., Stockert O. Probing magnetism in CePdAl under multi-extreme conditions using polarized neutrons  
*Journal of Physics: Conference Series* **592**, 012082-1-012082-6 (2015)
- Retuerto M., Muñoz A., Martínez-Lope M.J., Alonso J.A., Mompeán F.J., Fernández-Díaz M.T., Sánchez-Benítez J. Magnetic interactions in the double perovskites  $\text{R}_2\text{NiMnO}_6$  ( $\text{R} = \text{Tb}, \text{Ho}, \text{Er}, \text{Tm}$ ) investigated by neutron diffraction  
*Inorganic Chemistry* **54**, 10890-10900 (2015)
- Ritter C., Pankrats A.I., Demidov A.A., Velikanov D.A., Temerov V.L., Gudim I.A. Inclined magnetic structure of iron borate  $\text{Pr}_x\text{Y}_{1-x}\text{Fe}_3(\text{BO}_3)_4$ : A neutron diffraction study and crystal-field calculations  
*Physical Review B* **91**, 134416-1-134416-11 (2015)
- Ritter C., Provino A., Manfrinetti P., Pecharsky V.K., Gschneidner K.A., Dhar S.K. Magnetic structures of  $\text{R}_5\text{Ni}_2\text{In}_4$  and  $\text{R}_{11}\text{Ni}_4\text{In}_9$  ( $\text{R} = \text{Tb}$  and  $\text{Ho}$ ): Strong hierarchy in the temperature dependence of the magnetic ordering in the multiple rare-earth sublattices  
*Journal of Physics: Condensed Matter* **27**, 476001-1-476001-20 (2015)
- Solana-Madruga E., Dos Santos-García A.J., Arévalo-López A.M., Ávila-Brandé D., Ritter C., Atfield J.P., Sáez-Puche R. High pressure synthesis of polar and non-polar cation-ordered polymorphs of  $\text{Mn}_2\text{ScSbO}_6$   
*Dalton Transactions* **44**, 20441-20448 (2015)
- Tassan A., Mozzon M., Facchin G., Dolmella A., Detti S. Synthesis, characterization and dynamic behavior of some iridium carbonyl cluster complexes derived from  $\text{Ir}_4(\text{CO})_{12}$  with N-, P- and C-donor ligands: A survey  
*Inorganica Chimica Acta* **424**, 91-102 (2015)
- Troyanchuk I.O., Bushinsky M.V., Sikolenko V., Efimov V., Volkov N.V., Többsen D.M., Ritter C., Raveau B. Ferromagnetism in single-valent manganites  
*Journal of Alloys and Compounds* **619**, 719-725 (2015)
- Troyanchuk I.O., Bushinsky M.V., Volkov N.V., Sikolenko V., Efimova E.A., Ritter C. Role of superexchange interactions in the ferromagnetism of manganites  
*Journal of Experimental and Theoretical Physics* **120**, 97-102 (2015)
- Vališka M., Pospíšil J., Stunault A., Takeda Y., Gillon B., Haga Y., Prokeš K., Abd-Elmeguid M.M., Nénert G., Okane T., Yamagami H., Chapon L., Gukasov A., Cousson A., Yamamoto E., Sechovský V. Gradual localization of  $5f$  states in orthorhombic UTX ferromagnets: Polarized neutron diffraction study of Ru substituted UCoGe  
*Journal of the Physical Society of Japan* **84**, 084707-1-084707-8 (2015)
- Viciu L., Ryser A., Mensing C., Bos J.W.G. Ambient-pressure synthesis of two new vanadium-based calcium ferrite-type compounds:  $\text{NaV}_{1.25}\text{Ti}_{0.75}\text{O}_4$  and  $\text{NaVSnO}_4$   
*Inorganic Chemistry* **54**, 7264-7271 (2015)
- Wadley P., Hills V., Shahedkhan M.R., Edmonds K.W., Campion R.P., Novák V., Ouladdiaf B., Khalyavin D., Langridge S., Saidl V., Nemeč P., Rushforth A.W., Gallagher B.L., Dhessi S.S., Maccherozzi F., Zelezny J., Jungwirth T. Antiferromagnetic structure in tetragonal CuMnAs thin films  
*Scientific Reports* **5**, 17079-1-17079-6 (2015)
- Wen J.J., Tian W., Garlea V.O., Koohpayeh S.M., McQueen T.M., Li H.F., Yan J.Q., Rodriguez-Rivera J.A., Vaknin D., Broholm C.L. Disorder from order among anisotropic next-nearest-neighbor Ising spin chains in  $\text{SrHo}_2\text{O}_4$   
*Physical Review B* **91**, 054424-1-054424-9 (2015)
- Woody P., Karttunen A.J., Widenmeyer M., Niewa R., Kraus F. On copper(II) fluorides, the cuprophilic interaction, the preparation of copper nitride at room temperature, and the formation mechanism at elevated temperatures  
*Chemistry – A European Journal* **21**, 3290-3303 (2015)
- Altyntbaev E., Siegfried S.A., Dyadkin V., Moskvina E., Menzel D., Heinemann A., Dewhurst C., Fomicheva L., Tsvyashchenko A.V., Grigoriev S.V. Intrinsic instability of the helix spin structure in MnGe and order-disorder phase transition  
*Physical Review B* **90**, 174420-1-174420-6 (2014)
- Goswami S., Bhattacharya D., Keeney L., Maity T., Kaushik S.D., Siruguri V., Das G.C., Yang H., Li W., Gu C.Z., Pemble M.E., Roy S. Large magnetoelectric coupling in nanoscale  $\text{BiFeO}_3$  from direct electrical measurements  
*Physical Review B* **90**, 104402-1-104402-7 (2014)

## PUBLICATIONS

- Grigoriev S.V., Potapova N.M., Moskvina E.V., Dyadkin V.A., Dewhurst C., Maleyev S.V. Hexagonal spin structure of A-phase in MnSi: Densely packed skyrmion quasiparticles or two-dimensionally modulated spin superlattice?  
JETP Letters **100**, 216-221 (2014)
- Janson O., Néner G., Isobe M., Skourski Y., Ueda Y., Rosner H., Tsirlin A.A. Magnetic pyroxenes  $\text{LiCrGe}_2\text{O}_6$  and  $\text{LiCrSi}_2\text{O}_6$ : Dimensionality crossover in a nonfrustrated  $S = 3/2$  Heisenberg model  
Physical Review B **90**, 214424-1-214424-11 (2014)
- Palacios E., Rodríguez-Velamazán J.A., Evangelisti M., McIntyre G.J., Lorusso G., Visser D., De Jongh L.J., Boatner L.A. Magnetic structure and magnetocalorics of  $\text{GdPO}_4$   
Physical Review B **90**, 214423-1-214423-9 (2014)
- Raymond S., Buhot J., Ressouche E., Bourdarot F., Knebel G., Lapertot G. Switching of the magnetic order in  $\text{CeRhIn}_{5-x}\text{Sn}_x$  in the vicinity of its quantum critical point  
Physical Review B **90**, 014423-1-014423-5 (2014)
- Rojas D.P., Sánchez Marcos J., Rodríguez Fernández J. Successive magnetic transitions in  $\text{TbNiAl}_2$  studied by neutron diffraction  
Journal of Physics: Conference Series **549**, 012020-1-012020-4 (2014)
- Tarnavich V.V., Volegov A.S., Lott D., Mattauch S., Vorobiev A.A., Oleshkevych A., Grigoriev S.V. Structural and magnetic properties of the holmium-yttrium superlattice  
Journal of Surface Investigation. X-ray, Synchrotron and Neutron Techniques **8**, 976-982 (2014)
- Wildman E.J., Emery N., McLaughlin A.C. Electronic and magnetic properties of  $\text{Nd}_{1-x}\text{Sr}_x\text{MnAsO}$  oxyarsenides  
Physical Review B **90**, 224413-1-224413-6 (2014)
- Zabel H. Dynamics of spintronic materials: Exploration in the time and frequency domain  
Journal of Applied Physics **116**, 222202-1-222202-5 (2014)
- Boothby R.M., Hyde J.M., Swan H., Parfitt D., Wilford K., Lindner P. SANS examination of irradiated RPV steel welds during in-situ annealing  
Journal of Nuclear Materials **461**, 45-50 (2015)
- Bourgault D., Porcar L., Rivoirard S., Courtois P., Hardy V. Entropy change of a  $\text{Ni}_{45.5}\text{Co}_{4.5}\text{Mn}_{37}\text{In}_{13}$  single crystal studied by scanning calorimetry in high magnetic fields: Field dependence of the magnetocaloric effect  
Applied Physics Letters **107**, 092403-1-092403-5 (2015)
- Brokmeier H.G., Carradó A., Al-hamdany N., Pirling T., Wimpory R., Schell N., Palkowski H. Texture gradient in a copper tube at maximum and minimum wall thickness  
IOP Conference Series: Materials Science and Engineering **82**, 012102-1-012102-4 (2015)
- Brunelli M., Ceretti M. Exploring local disorder in fast oxygen ion conductors by atomic pair distribution function analysis  
EPJ Web of Conferences **104**, 01009-1-01009-12 (2015)
- Champion G., Iltis X., Tougait O., Pasturel M., Belin R., Palancher H., Richaud J.C. Study of the  $\gamma\text{-U}(\text{Mo})$  phase decomposition for atomised and ground powders  
Progress in Nuclear Energy **83**, 248-255 (2015)
- Chobaut N., Carron D., Arsène S., Schloth P., Drezet J.M. Quench induced residual stress prediction in heat treatable 7xxx aluminium alloy thick plates using Gleeble interrupted quench tests  
Journal of Materials Processing Technology **222**, 373-380 (2015)
- Chobaut N., Saelzle P., Michel G., Carron D., Drezet J.M. Quench-induced stresses in AA2618 forgings for impellers: A multiphysics and multiscale problem  
JOM **67**, 984-990 (2015)
- Coulet M.V., Rufino B., Esposito P.H., Neisius T., Isnard O., Denoyel R. Oxidation mechanism of aluminum nanopowders  
Journal of Physical Chemistry C **119**, 25063-25070 (2015)
- Crouigneau G., Porcar L., Courtois P., Pairis S., Mossang E., Eyraud E., Bourgault D. Annealing effect on the magnetic induced austenite transformation in polycrystalline freestanding Ni-Co-Mn-In films produced by co-sputtering  
Journal of Applied Physics **117**, 035302-1-035302-5 (2015)
- Dattani R., Telling M.T.F., Lopez C.G., Krishnadasan S.H., Bannock J.H., Terry A.E., de Mello J.C., Cabral J.T., Nedoma A.J. Rapid precipitation: An alternative to solvent casting for organic solar cells  
ChemPhysChem **16**, 1231-1238 (2015)
- Assumma L., Nguyen H.D., Iojoiu C., Lyonard S., Mercier R., Espuche E. Effects of block length and membrane processing conditions on the morphology and properties of perfluorosulfonated poly(arylene ether sulfone) multiblock copolymer membranes for PEMFC  
ACS Applied Materials & Interfaces **7**, 13808-13820 (2015)

---

## Materials Science and Engineering

---

- Deng Y., Eames C., Chotard J.N., Lalere F., Seznec V., Emge S., Pecher O., Grey C.P., Masquelier C., Islam M.S. Structural and mechanistic insights into fast lithium-ion conduction in  $\text{Li}_4\text{SiO}_4\text{-Li}_3\text{PO}_4$  solid electrolytes  
*Journal of the American Chemical Society* **137**, 9136-9145 (2015)
- Dove M. Neutrons for geology  
*Geoscientist* **25**, 14-19 (2015)
- Farkas G., Trojanová Z., Száraz Z., Minárik P., Máthis K. Effect of the fiber orientation on the deformation mechanisms of magnesium-alloy based composite  
*Materials Science and Engineering A* **643**, 25-31 (2015)
- Hattingh D.G., James M.N., Newby M., Scheepers R., Doubell P. Friction hydro-pillar processing refurbishment of steam turbine blade/disc attachment holes  
In «Proceedings of the 4th International Conference of Engineering Against Failure» (2015) pp. 673-681
- Herlach D.M., Binder S., Galenko P., Gegner J., Holland-Moritz D., Klein S., Kolbe M., Volkmann T. Containerless undercooled melts: Ordering, nucleation, and dendrite growth  
*Metallurgical and Materials Transactions A* **46**, 4921-4936 (2015)
- Hinterstein M., Hoelzel M., Rouquette J., Haines J., Glaum J., Kungl H., Hoffman M. Interplay of strain mechanisms in morphotropic piezoceramics  
*Acta Materialia* **94**, 319-327 (2015)
- Kenfaui D., Chateigner D., Gomina M., Noudem J.G., Ouladdiaf B., Dauscher A., Lenoir B. Volume texture and anisotropic thermoelectric properties in  $\text{Ca}_3\text{Co}_4\text{O}_9$  bulk materials  
*Materials Today: Proceedings* **2**, 637-646 (2015)
- Kim H.K., Coules H.E., Pavier M.J., Shterenlikht A. Measurement of highly non-uniform residual stress fields with reduced plastic error  
*Experimental Mechanics* **55**, 1211-1224 (2015)
- Lançon D., Ewings R.A., Stewart J.R., Jiménez-Ruiz M., Rønnow H.M. The use of selected neutron absorption resonance filters to suppress spurious events on hot neutron spectrometers  
*Nuclear Instruments and Methods in Physics Research A* **780**, 9-14 (2015)
- Masó N., West A.R. Dielectric properties, polymorphism, structural characterisation and phase diagram of  $\text{Na}_2\text{Nb}_4\text{O}_{11}\text{-Ag}_2\text{Nb}_4\text{O}_{11}$  solid solutions  
*Journal of Solid State Chemistry* **225**, 438-449 (2015)
- Miller A.J., Rotaru A., Arnold D.C., Morrison F.D. Effect of local A-site strain on dipole stability in  $\text{A}_6\text{GaNb}_9\text{O}_{30}$  (A = Ba, Sr, Ca) tetragonal tungsten bronze relaxor dielectrics  
*Dalton Transactions* **44**, 10738-10745 (2015)
- Mondelli C., Bardelli F., Vitillo J.G., Didier M., Brendle J., Cavicchia D.R., Robinet J.C., Charlet L. Hydrogen adsorption and diffusion in synthetic Na-montmorillonites at high pressures and temperature  
*International Journal of Hydrogen Energy* **40**, 2698-2709 (2015)
- Nava-Avendaño J., Arroyo-de Dompablo M.E., Frontera C., Ayllón J.A., Palacín M.R. Study of sodium manganese fluorides as positive electrodes for Na-ion batteries  
*Solid State Ionics* **278**, 106-113 (2015)
- Nava-Avendaño J., Ayllón J.A., Frontera C., Oró-Solé J., Estruga M., Molins E., Palacín M.R. Low temperature synthesis and characterization of Na-M(O)-F phases with M = Ti, V  
*Journal of Solid State Chemistry* **226**, 286-294 (2015)
- Paffumi E., Nilsson K.F., Szaraz Z. Experimental and numerical assessment of thermal fatigue in 316 austenitic steel pipes  
*Engineering Failure Analysis* **47**, 312-327 (2015)
- Pérrilat-Merceroz C., Roussel P., Huvé M., Capoen E., Rosini S., Gélín P., Vannier R.N., Gauthier G.H. Pure and Mn-doped  $\text{La}_4\text{SrTi}_5\text{O}_{17}$  layered perovskite as potential solid oxide fuel cell material: Structure and anodic performance  
*Journal of Power Sources* **274**, 806-815 (2015)
- Perrichon A., Piovano A., Boehm M., Zbiri M., Johnson M., Schober H., Ceretti M., Paulus W. Lattice dynamics modified by excess oxygen in  $\text{Nd}_2\text{NiO}_{4+\delta}$ : Triggering low-temperature oxygen diffusion  
*Journal of Physical Chemistry C* **119**, 1557-1564 (2015)
- Pérez-Landazábal J.I., Lambri O.A., Bonifacich F.G., Sánchez-Alarcos V., Recarte V., Tarditti F. Influence of defects on the irreversible phase transition in Fe-Pd ferromagnetic shape memory alloys  
*Acta Materialia* **86**, 110-117 (2015)
- Piscitelli F. Novel boron-10-based detectors for neutron scattering science  
*European Physical Journal Plus* **130**, 271-279 (2015)
- Prakash M., Jobic H., Ramsahye N.A., Nouar F., Damasceno Borges D., Serre C., Maurin G. Diffusion of  $\text{H}_2$ ,  $\text{CO}_2$ , and their mixtures in the porous zirconium based metal-organic framework MIL-140A(Zr): Combination of quasi-elastic neutron scattering measurements and molecular dynamics simulations  
*Journal of Physical Chemistry C* **119**, 23978-23989 (2015)
- Salek G., Dufour P., Guillemet-Fritsch S., Tenailleau C. Sustainable low temperature preparation of  $\text{Mn}_{3-x}\text{Co}_x\text{O}_4$  ( $0 \leq x < 3$ ) spinel oxide colloidal dispersions used for solar absorber thin films  
*Materials Chemistry and Physics* **162**, 252-262 (2015)

## PUBLICATIONS

- Sule J., Ganguly S., Coules H., Pirling T. Application of local mechanical tensioning and laser processing to refine microstructure and modify residual stress state of a multi-pass 304L austenitic steels welds  
Journal of Manufacturing Processes **18**, 141-150 (2015)
- Sun M., Rousse G., Abakumov A.M., Saubanère M., Doublet M.L., Rodríguez-Carvajal J., Van Tendeloo G., Tarascon J.M.  $\text{Li}_2\text{Cu}_2\text{O}(\text{SO}_4)_2$ : A possible electrode for sustainable Li-based batteries showing a 4.7 V redox activity vs  $\text{Li}^+/\text{Li}^0$   
Chemistry of Materials **27**, 3077-3087 (2015)
- Tian W., Mao X., Brown P., Rutledge G.C., Hatton T.A. Electrochemically nanostructured polyvinylferrocene/polypyrrole hybrids with synergy for energy storage  
Advanced Functional Materials **25**, 4803-4813 (2015)
- Trapote-Barreira A., Porcar L., Cama J., Soler J.M., Allen A.J. Structural changes in C-S-H gel during dissolution: Small-angle neutron scattering and Si-NMR characterization  
Cement and Concrete Research **72**, 76-89 (2015)
- Tsivoulas D., Quinta da Fonseca J., Tuffs M., Preuss M. Effects of flow forming parameters on the development of residual stresses in Cr-Mo-V steel tubes  
Materials Science and Engineering A **624**, 193-202 (2015)
- Welbourn R.J.L., Lee S.Y., Gutfreund P., Hughes A., Zarbakhsh A., Clarke S.M. Neutron reflection study of the adsorption of the phosphate surfactant NaDEHP onto alumina from water  
Langmuir **31**, 3377-3384 (2015)
- Wood M.H., Welbourn R.J.L., Zarbakhsh A., Gutfreund P., Clarke S.M. Polarized neutron reflectometry of nickel corrosion inhibitors  
Langmuir **31**, 7062-7072 (2015)
- Woznica N., Hawelek L., Fischer H.E., Bobrinetskiy I., Burian A. The atomic scale structure of graphene powder studied by neutron and X-ray diffraction  
Journal of Applied Crystallography **48**, 1429-1436 (2015)
- Yao J., Isnard O., Morozkin A.V., Ivanova T.I., Koshkid'ko Y.S., Bogdanov A.E., Nikitin S.A., Suski W. Magnetic order and crystal structure study of  $\text{YNi}_4\text{Si}$ -type  $\text{NdNi}_4\text{Si}$   
Journal of Solid State Chemistry **222**, 123-128 (2015)
- Zbiri M., Haverkate L.A., Kearley G.J., Johnson M.R., Mulder F.M. Organic solar cells  
In «Neutron Applications in Materials for Energy Neutron Scattering Applications and Techniques» (2015, Springer) pp. 109-135
- Aginian M.A., Ispirian K.A., Ispiryan M. Methods for the measurement of the refractive index of MeV photons using total internal and external reflection  
Journal of Physics: Conference Series **517**, 012045-1-012045-5 (2014)
- Camattari R., Paternò G., Bellucci V., Guidi V. Quasi-mosaicity of (311) planes in silicon and its use in a Laue lens with high-focusing power  
Experimental Astronomy **38**, 417-431 (2014)
- Freund A.K., Rehm C. Effect of crystal shape on neutron rocking curves of perfect single crystals designed for ultra-small-angle scattering experiments  
Journal of Physics: Conference Series **528**, 012002-1-012002-10 (2014)
- Navas D., Redondo C., Badini Confalonieri G.A., Batallán F., Devishvili A., Iglesias-Freire Ó., Asenjo A., Ross C.A., Toperverg B.P. Domain-wall structure in thin films with perpendicular anisotropy: Magnetic force microscopy and polarized neutron reflectometry study  
Physical Review B **90**, 054425-1-054425-12 (2014)
- Qviller A.J., Dennison A.J.C., Haug H., You C.C., Hasle I.M., Østreg E., Fjellvåg H., Vorobiev A., Hjörvarsson B., Marstein E.S., Frommen C., Hauback B.C. Thermal stability of photovoltaic  $\alpha\text{-Si:H}$  determined by neutron reflectometry  
Applied Physics Letters **105**, 231909-1-231909-3 (2014)
- Recarte V., Pérez-Landazábal J.I., Sánchez-Alarcos V., Rodríguez-Velamazán J.A. Study of the transformation sequence on a high temperature martensitic transformation Ni-Mn-Ga-Co shape memory alloy  
Journal of Physics: Conference Series **549**, 012017-1-012017-5 (2014)
- Vorobiev A., Dennison A., Chernyshov D., Skrypnichuk V., Barbero D., Talyzin A.V. Graphene oxide hydration and solvation: An *in situ* neutron reflectivity study  
Nanoscale **6**, 12151-12156 (2014)

---

## Nuclear and Particle Physics

---

- Afach S., Ayres N.J., Baker C.A., Ban G., Bison G., Bodek K., Fertl M., Franke B., Geltenbort P., Green K., Griffith W.C., van der Grinten M., Grujić Z.D., Harris P.G., Heil W., Helaine V., Ilaydjiev P., Ivanov S.N., Kasprzak M., Kermaidic Y., Kirch K., Koch H.C., Komposch S., Kozela A., Krempel J., Lauss B., Lefort T., Lemièrè Y., Musgrave M., Naviliat-Cuncic O., Pendlebury J.M., Piegsa F.M., Pignol G., Plonka-Spehr C., Prashanth P.N., Quémener G., Rawlik M., Rebreyend D., Ries D., Rocca S., Rozpedzik D., Schmidt-Wellenburg P., Severijns N., Shiers D., Thorne J.A., Weis A., Wursten E., Zejma J., Zenner J., Zsigmond G. Gravitational depolarization of ultracold neutrons: Comparison with data  
Physical Review D **92**, 052008-1-052008-10 (2015)

- Afach S., Baker C.A., Ban G., Bison G., Bodek K., Chowdhuri Z., Daum M., Fertl M., Franke B., Geltenbort P., Green K., van der Grinten M.G.D., Grujic Z., Harris P.G., Heil W., Helaine V., Henneck R., Horras M., Iaydjiev P., Ivanov S.N., Kasprzak M., Kermaidic Y., Kirch K., Knowles P., Koch H.C., Komposch S., Kozela A., Krempel J., Lauss B., Lefort T., Lemièrre Y., Mchedlishvili A., Naviliat-Cuncic O., Pendlebury J.M., Piegsa F.M., Pignol G., Prashant P.N., Quémener G., Rebreyend D., Ries D., Roccia S., Schmidt-Wellenburg P., Severijns N., Weis A., Wursten E., Wyszynski G., Zejma J., Zenner J., Zsigmond G. Measurement of a false electric dipole moment signal from  $^{199}\text{Hg}$  atoms exposed to an inhomogeneous magnetic field  
European Physical Journal D **69**, 225-1-225-7 (2015)
- Arzumanov S., Bondarenko L., Chernyavsky S., Geltenbort P., Morozov V., Nesvizhevsky V.V., Panin Y., Strepetov A. A measurement of the neutron lifetime using the method of storage of ultracold neutrons and detection of inelastically up-scattered neutrons  
Physics Letters B **745**, 79-89 (2015)
- Bączyk P., Czerwiński M., Korgul A., Rząca-Urban T., Urban W., Blanc A., Jentschel M., Mutti P., Köster U., Soldner T., de France G., Simpson G., Ur C.A. High precision  $\gamma$  spectroscopy of  $^{69,71}\text{Zn}$  from  $(n, \gamma)$  reactions using EXILL  
EPJ Web of Conferences **93**, 01042-1-01042-2 (2015)
- Bączyk P., Urban W., Zlotowska D., Czerwiński M., Rząca-Urban T., Blanc A., Jentschel M., Mutti P., Köster U., Soldner T., de France G., Simpson G., Ur C.A. Near-yrast excitations in nucleus  $^{83}\text{As}$ : Tracing the  $\pi g_{7/2}$  orbital in the  $^{78}\text{Ni}$  region  
Physical Review C **91**, 047302-1-047302-4 (2015)
- Baefler S., Nesvizhevsky V.V., Pignol G., Protasov K.V., Rebreyend D., Kupriyanova E.A., Voronin A.Y. Frequency shifts in gravitational resonance spectroscopy  
Physical Review D **91**, 042006-1-042006-16 (2015)
- Bērzins J., Krasta T., Simonova L., Jentschel M., Urban W. Levels of  $^{186}\text{Re}$  populated in thermal neutron capture reaction  
EPJ Web of Conferences **93**, 01045-1-01045-2 (2015)
- Bocchi G., Leoni S., Bottoni S., Blanc A., de France G., Jentschel M., Köster U., Mutti P., Soldner T., Simpson G., Ur C., Urban W. Study of low-spin states in Ca isotopes via neutron capture reactions  
Acta Physica Polonica B **46**, 647-650 (2015)
- Brenner T., Chesnevskaya S., Fierlinger P., Geltenbort P., Gutmiedl E., Lauer T., Rezai K., Rothe J., Zechlau T., Zou R. A magnetic trap for high-field seeking neutron spin states  
Physics Letters B **741**, 316-319 (2015)
- Browne F., Bruce A.M., Sumikama T., Nishizuka I., Nishimura S., Doornenbal P., Lorusso G., Söderström P.A., Watanabe H., Daido R., Patel Z., Rice S., Sinclair L., Wu J., Xu Z.Y., Yagi A., Baba H., Chiga N., Carroll R., Didierjean F., Fang Y., Fukuda N., Gey G., Ideguchi E., Inabe N., Isobe T., Kameda D., Kojouharov I., Kurz N., Kubo T., Lalkovski S., Li Z., Lozeva R., Nishibata H., Odahara A., Podolyak Z., Regan P.H., Roberts O.J., Sakurai H., Schaffner H., Simpson G.S., Suzuki H., Takeda H., Tanaka M., Taprogge J., Werner V., Wieland O. Lifetime measurements of the first  $2^+$  states in  $^{104,106}\text{Zr}$ : Evolution of ground-state deformations  
Physics Letters B **750**, 448-452 (2015)
- Cieplicka-Orynczak N., Fornal B., Leoni S., Bazzacco D., Blanc A., Bocchi G., Bottoni S., de France G., Jentschel M., Köster U., Mutti P., Simpson G., Soldner T., Szpak B., Ur C., Urban W. Excitations of one-valence-proton, one-valence-neutron nucleus  $^{210}\text{Bi}$  from cold-neutron capture  
AIP Conference Proceedings **1681**, 060011-1-060011-6 (2015)
- Crivelli P., Nesvizhevsky V.V., Voronin A.Y. Can we observe the gravitational quantum states of positronium?  
Advances in High Energy Physics **2015**, 173572-1-173572-7 (2015)
- Czerwiński M., Rząca-Urban T., Urban W., Bączyk P., Sieja K., Nyakó B.M., Timár J., Kuti I., Tornyi T.G., Atanasova L., Blanc A., Jentschel M., Mutti P., Köster U., Soldner T., de France G., Simpson G.S., Ur C.A. Neutron-proton multiplets in the nucleus  $^{88}\text{Br}$   
Physical Review C **92**, 014328-1-014328-14 (2015)
- Dufour G., Cassidy D.B., Crivelli P., Debu P., Lambrecht A., Nesvizhevsky V.V., Reynaud S., Voronin A.Y., Wall T.E. Prospects for studies of the free fall and gravitational quantum states of antimatter  
Advances in High Energy Physics **2015**, 379642-1-379642-16 (2015)
- Efimov V., Izotov A., Mezhev-Deglin L., Nesvizhevskii V., Rybchenko O., Zimin A. Structural and phase transitions in nanocluster ethanol samples at low temperatures  
Low Temperature Physics **41**, 473-477 (2015)
- Efimov V.B., Mezhev-Deglin L.P., Dewhurst C.D., Likhov A.V., Nesvizhevsky V.V. Neutron scattering on impurity nanoclusters in gel samples  
Advances in High Energy Physics **2015**, 808212-1-808212-4 (2015)
- Eliseev S., Blaum K., Block M., Chenmarev S., Dorrer H., Düllmann C.E., Enss C., Filianin P.E., Gastaldo L., Goncharov M., Köster U., Lautenschlager F., Novikov Y.N., Rischka A., Schüssler R.X., Schweikhard L., Türler A. Direct measurement of the mass difference of  $^{163}\text{Ho}$  and  $^{163}\text{Dy}$  solves the Q-value puzzle for the neutrino mass determination  
Physical Review Letters **115**, 062501-1-062501-5 (2015)

## PUBLICATIONS

- Flavigny F., Pauwels D., Radulov D., Darby I.J., De Witte H., Diriken J., Fedorov D.V., Fedosseev V.N., Fraile L.M., Huyse M., Ivanov V.S., Köster U., Marsh B.A., Otsuka T., Popescu L., Raabe R., Seliverstov M.D., Shimizu N., Sjödin A.M., Tsunoda Y., Van den Bergh P., Van Duppen P., van de Walle J., Venhart M., Walters W.B., Wimmer K. Characterization of the low-lying  $O^+$  and  $2^+$  states in  $^{68}\text{Ni}$  via  $\beta$  decay of the low-spin  $^{68}\text{Co}$  isomer  
Physical Review C **91**, 034310-1-034310-8 (2015)
- De France G., Blanc A., Drouet F., Jentschel M., Köster U., Mutti P., Régis J.H., Simpson G., Soldner T., Stęzowski O., Leoni S., Urban W., Vancraeynest A. The EXILL campaign  
Pramana – Journal of Physics **85**, 467-472 (2015)
- Jolie J., Régis J.M., Wilmsen D., Ahmed S., Pfeiffer M., Saed-Samii N., Warr N., Blanc A., Jentschel M., Köster U., Mutti P., Soldner T., Simpson G., de France G., Urban W., Drouet F., Vancraeynest A., Baczyk P., Czerwiński M., Korgul A., Mazzocchi C., Rzača-Urban T., Bruce A., Roberts O.J., Fraile L.M., Mach H., Pazyi V., Ignatov A., Ilieva S., Kröll T., Scheck M., Thurauf M., Ivanova D., Kisiov S., Lalkovski S., Podolyak Z., Regan P.H., Korten W., Zielinska M., Salsac M.D., Habs D., Thiroff P.G., Ur C.A., Bernards C., Casten R.F., Cooper N., Werner V., Cakirli R.B., Leoni S., Benzoni G., Bocchi G., Bottoni S., Crespi F.C.L., Fornal B., Cieplicka N., Szpak B., Petrache C.M., Leguillon R., John R., Lorenz C., Massarczyk R., Schwengner R., Curien D., Lozeva R., Sengele L., Marginean N., Lica R. The  $(n,\gamma)$  campaigns at EXILL  
EPJ Web of Conferences **93**, 01014-1-01014-6 (2015)
- Jolie J., Régis J.M., Wilmsen D., Saed-Samii N., Pfeiffer M., Warr N., Blanc A., Jentschel M., Köster U., Mutti P., Soldner T., Simpson G.S., de France G., Urban W., Drouet F., Vancraeynest A., Bruce A.M., Roberts O.J., Fraile L.M., Pazyi V., Ignatov A., Kröll T., Ivanova D., Kisiov S., Lalkovski S., Podolyak Z., Regan P.H., Wilson E., Korten W., Ur C.A., Lica R., Marginean N. Test of the  $SO(6)$  selection rule in  $^{196}\text{Pt}$  using cold-neutron capture  
Nuclear Physics A **934**, 1-7 (2015)
- Lemmel H., Brax P., Ivanov A.N., Jenke T., Pignol G., Pitschmann M., Potocar T., Wellenzohn M., Zawisky M., Abele H. Neutron interferometry constrains dark energy chameleon fields  
Physics Letters B **743**, 310-314 (2015)
- Leoni S., Bocchi G., Bottoni S., Bazzacco D., Cieplicka N., Fornal B., Szpak B., Michelagnoli C., Blanc A., de France G., Jentschel M., Köster U., Lozeva R., Mutti P., Soldner T., Simpson G., Ur C., Urban W. Particle-core couplings close to neutron-rich doubly-magic nuclei  
Acta Physica Polonica B **46**, 637-646 (2015)
- Lorenz C., John R., Massarczyk R., Schwengner R., Blanc A., de France G., Jentschel M., Köster U., Mutti P., Simpson G., Soldner T., Urban W., Valenta S., Belgya T. Neutron-capture experiment on  $^{77}\text{Se}$  with EXILL at ILL Grenoble  
EPJ Web of Conferences **93**, 01050-1-01050-2 (2015)
- Lychagin E.V., Muzychka A.Y., Nekhaev G.V., Nesvizhevsky V.V., Sharapov E.I., Strelkov A.V. UCN source at an external beam of thermal neutrons  
Advances in High Energy Physics **2015**, 547620-1-547620-7 (2015)
- Materna T., Urban W., Sieja K., Köster U., Faust H., Czerwiński M., Rzača-Urban T., Bernards C., Fransen C., Jolie J., Régis J.M., Thomas T., Warr N. Low spin structure of  $^{86}\text{Se}$ : Confirmation of  $\gamma$  collectivity at  $N = 52$   
Physical Review C **92**, 034305-1-034305-6 (2015)
- Munzenberg G. From bohrium to copernicium and beyond SHE research at SHIP  
Nuclear Physics A **944**, 5-29 (2015)
- Nesvizhevsky V.V., Antoniadis I., Baessler S., Pignol G. Quantum gravitational spectroscopy  
Advances in High Energy Physics **2015**, 467409-1-467409-2 (2015)
- Pollitt A.J., Smith A.G., Tsekhanovich I., Dare J.A., Murray L. Measurements of  $\gamma$ -ray energy and multiplicity from  $^{235}\text{U}$  (*nthermal*) using STEFF  
EPJ Web of Conferences **93**, 020181-1-020181-4 (2015)
- Roulier D., Vezzu F., Baebler S., Clément B., Morton D., Nesvizhevsky V.V., Pignol G., Rebreyend D. Status of the GRANIT facility  
Advances in High Energy Physics **2015**, 730437-1-730437-10 (2015)
- Sarrazin M., Pignol G., Lamblin J., Petit F., Terwagne G., Nesvizhevsky V.V. Probing the braneworld hypothesis with a neutron-shining-through-a-wall experiment  
Physical Review D **91**, 075013-1-075013-11 (2015)
- Seestrom S.J., Adamek E.R., Barlow D., Broussard L.J., Callahan N.B., Clayton S.M., Cude-Woods C., Currie S., Dees E.B., Fox W., Geltenbort P., Hickerson K.P., Holley A.T., Liu C.Y., Makela M., Medina J., Morley D.J., Morris C.L., Ramsey J., Roberts A., Salvat D.J., Saunders A., Sharapov E.I., Sjøe S.K.L., Slaughter B.A., VornDick B., Walstrom P.L., Wang Z., Womack T.L., Young A.R., Zeck B.A. Upscattering of ultracold neutrons from gases  
Physical Review C **92**, 065501-1-065501-8 (2015)
- Serebrov A.P., Kolomenskiy E.A., Pirozhkov A.N., Krasnoschekova I.A., Vassiljev A.V., Polyushkin A.O., Lasakov M.S., Murashkin A.N., Solovay V.A., Fomin A.K., Shoka I.V., Zherebtsov O.M., Geltenbort P., Ivanov S.N., Zimmer O., Alexandrov E.B., Dmitriev S.P., Dovator N.A. New search for the neutron electric dipole moment with ultracold neutrons at ILL  
Physical Review C **92**, 055501-1-055501-16 (2015)

Serebrov A.P., Kolomenskiy E.A., Pirozhkov A.N., Krasnoshekova I.A., Vasiliev A.V., Polyushkin A.O., Lasakov M.S., Murashkin A.N., Solovey V.A., Fomin A.K., Shoka I.V., Zharebtsov O.M., Geltenbort P., Ivanov S.N., Zimmer O., Alexandrov E.B., Dmitriev S.P., Dovator N.A. New measurements of the neutron electric dipole moment with the Petersburg Nuclear Physics Institute double-chamber electric dipole moment spectrometer

Physics of Particles and Nuclei Letters **12**, 286-296 (2015)

Sonzogni A.A., Johnson T.D., McCutchan E.A. Nuclear structure insights into reactor antineutrino spectra

Physical Review C **91**, 011301-1-011301-5 (2015)

Taprogge J., Jungclaus A., Grawe H., Nishimura S., Doornenbal P., Lorusso G., Simpson G.S., Söderström P.A., Sumikama T., Xu Z.Y., Baba H., Browne F., Fukuda N., Gernhäuser R., Gey G., Inabe N., Isobe T., Jung H.S., Kameda D., Kim G.D., Kim Y.K., Kojouharov I., Kubo T., Kurz N., Kwon Y.K., Li Z., Sakurai H., Schaffner H., Steiger K., Suzuki H., Takeda H., Vajta Z., Watanabe H., Wu J., Yagi A., Yoshinaga K., Benzoni G., Bonig S., Chae K.Y., Coraggio L., Covello A., Daugas J.M., Drouet F., Gadea A., Gargano A., Ilieva S., Kondev F.G., Kröll T., Lane G.J., Montaner-Piza A., Moschner K., Mucher D., Naqvi F., Niikura M., Nishibata H., Odahara A., Orlandi R., Patel Z., Podolyak Z., Wendt A.  $\beta$  decay of  $^{129}\text{Cd}$  and excited states in  $^{129}\text{In}$

Physical Review C **91**, 054324-1-054324-11 (2015)

Theroin C. A new experiment to search for neutron-antineutron oscillations at the European Spallation Source

Nuclear Physics News **25**, 13-18 (2015)

Vacik J., Hnatowicz V., Köster U. Study of neutron induced reactions on  $^7\text{Be}$  using large angle coincidence spectroscopy

Physics Procedia **66**, 520-523 (2015)

Van Beveren C., Andreyev A.N., Barzakh A.E., Cocolios T.E., Fedorov D., Fedosseev V.N., Ferrer R., Huyse M., Köster U., Lane J., Liberati V., Lynch K.M., Marsh B.A., Procter T.J., Radulov D., Rapisarda E., Sandhu K., Seliverstov M.D., Van Duppen P., Venhart M., Veselsky M. Internal decay of the  $[10^-]$  intruder state in  $^{184}\text{Tl}$

Physical Review C **92**, 014325-1-014325-8 (2015)

Vesna V.A., Gledenov Y.M., Nesvizhevsky V.V., Sedyshev P.V., Shulgina E.V. Left-right asymmetry in integral spectra of  $\gamma$ -quanta in the interaction of nuclei with polarized thermal neutrons

Physics of Atomic Nuclei **78**, 801-804 (2015)

Zimmer O., Golub R. Ultracold neutron accumulation in a superfluid-helium converter with magnetic multipole reflector

Physical Review C **92**, 015501-1-015501-11 (2015)

Escobar M., Lamy F., Meyerovich A.E., Nesvizhevsky V.V. Rough mirror as a quantum state selector: Analysis and design

Advances in High Energy Physics **2014**, 764182-1-764182-11 (2014)

Jolie J., Régis J.M., Wilmsen D., Ahmed S., Pfeiffer M., Saed-Samii N., Warr N., Blanc A., Jentschel M., Köster U., Mutti P., Soldner T., Simpson G., de France G., Urban W., Bruce A.M., Roberts O.J., Fraile L.M., Pazy V., Ignatov A., Ilieva S., Kröll T., Scheck M., Thurauf M., Ivanova D., Kisyov S., Lalkovski S., Podolyak Z., Regan P.H., Korten W., Habs D., Thierolf P.G., Ur C.A. First results of the  $(n,\gamma)$  EXILL campaigns at the Institut Laue-Langevin using EXOGAM and FATIMA

Journal of Physics: Conference Series **533**, 012026-1-012026-5 (2014)

Köster U. Precision nuclear data measurements at Institut Laue-Langevin IAEA Tecdoc Series **1743**

Pignol G., Baeßler S., Nesvizhevsky V.V., Protasov K., Rebreyend D., Voronin A. Gravitational resonance spectroscopy with an oscillating magnetic field gradient in the GRANIT flow through arrangement

Advances in High Energy Physics **2014**, 628125-1-628125-7 (2014)

Régis J.M., Jolie J., Saed-Samii N., Warr N., Pfeiffer M., Blanc A., Jentschel M., Köster U., Mutti P., Soldner T., Simpson G.S., Drouet F., Vancraeynest A., de France G., Clément E., Stezowski O., Ur C.A., Urban W., Regan P.H., Podolyak Z., Larijani C., Townsley C., Carroll R., Wilson E., Fraile L.M., Mach H., Pazy V., Olaizola B., Vedia V., Bruce A.M., Roberts O.J., Smith J.F., Kröll T., Hartig A.L., Ignatov A., Ilieva S., Thurauf M., Lalkovski S., Ivanova D., Kisyov S., Korten W., Salsac M.D., Zielinska M., Marginean N., Ghita D.G., Lica R., Petrache C.M., Astier A., Leguillon R.  $B(E2; 2_1^+ \rightarrow 0_1^+)$  value in  $^{90}\text{Kr}$

Physical Review C **90**, 067301-1-067301-4 (2014)

---

## Soft Matter

---

Abbott S.B., de Vos W.M., Mears L.L.E., Cattoz B., Skoda M.W.A., Barker R., Richardson R.M., Prescott S.W. Is osmotic pressure relevant in the mechanical confinement of a polymer brush?

Macromolecules **48**, 2224-2234 (2015)

Aoun B., Sharma V.K., Pellegrini E., Mitra S., Johnson M., Mukhopadhyay R. Structure and dynamics of ionic micelles: MD simulation and neutron scattering study

Journal of Physical Chemistry B **119**, 5079-5086 (2015)

Assumma L., Iojoiu C., Mercier R., Lyonnard S., Nguyen H.D., Planes E. Synthesis of partially fluorinated poly(arylene ether sulfone) multiblock copolymers bearing perfluorosulfonic functions

Journal of Polymer Science A **53**, 1941-1956 (2015)

## PUBLICATIONS

- Banc A., Genix A.C., Dupas C., Sztucki M., Schweins R., Appavou M.S., Oberdisse J. Origin of small-angle scattering from contrast-matched nanoparticles: A study of chain and filler structure in polymer nanocomposites  
*Macromolecules* **48**, 6596-6605 (2015)
- Beddoes C.M., Case C.P., Briscoe W.H. Understanding nanoparticle cellular entry: A physicochemical perspective  
*Advances in Colloid and Interface Science* **218**, 48-68 (2015)
- Belička M., Gerelli Y., Kučerka N., Fragneto G. The component group structure of DPPC bilayers obtained by specular neutron reflectometry  
*Soft Matter* **11**, 6275-6283 (2015)
- Bouchoux A., Ventureira J., Gésan-Guiziou G., Garnier-Lambrouin F., Qu P., Pasquier C., Pézenec S., Schweins R., Cabane B. Structural heterogeneity of milk casein micelles: A SANS contrast variation study  
*Soft Matter* **11**, 389-399 (2015)
- Burchard W., Schweins R. Branched conformational properties of macromolecules in close relation to chemical synthesis. I. Unperturbed structures  
*Journal of Chemical Physics* **143**, 114906-1-114906-12 (2015)
- Burchard W., Schweins R., Werner M. Branched conformational properties of macromolecules in close relation to chemical synthesis. II. Influence of excluded volume interactions  
*Journal of Chemical Physics* **143**, 114907-1-114907-13 (2015)
- Calabrese M.A., Rogers S.A., Murphy R.P., Wagner N.J. The rheology and microstructure of branched micelles under shear  
*Journal of Rheology* **59**, 1299-1328 (2015)
- Campbell R.A., Chuan Ang J., Sebastiani F., Tummino A., White J.W. Spread films of human serum albumin at the air-water interface: Optimization, morphology, and durability  
*Langmuir* **31**, 13535-13542 (2015)
- Cattoz B., de Vos W.M., Cosgrove T., Crossman M., Espidel Y., Prescott S.W. Interpolymer complexation: Comparisons of bulk and interfacial structures  
*Langmuir* **31**, 4151-4159 (2015)
- Chrissopoulou K., Anastasiadis S.H. Effects of nanoscopic-confinement on polymer dynamics  
*Soft Matter* **11**, 3746-3766 (2015)
- Chu F., Heptner N., Lu Y., Siebenbürger M., Lindner P., Dzubiella J., Ballauff M. Colloidal plastic crystals in a shear field  
*Langmuir* **31**, 5992-6000 (2015)
- Colmenero J., Alvarez F., Arbe A. Collective dynamics of glass-forming polymers at intermediate length scales  
*EPJ Web of Conferences* **83**, 01001-1-01001-10 (2015)
- Cosgrove T., Swier S., Schmidt R.G., Muangpil S., Espidel Y., Griffiths P.C., Prescott S.W. Impact of end-tethered polyhedral nanoparticles on the mobility of poly(dimethylsiloxane)  
*Langmuir* **31**, 8469-8477 (2015)
- da Silva M.A., Bode F., Grillo I., Dreiss C.A. Exploring the kinetics of gelation and final architecture of enzymatically cross-linked chitosan/gelatin gels  
*Biomacromolecules* **16**, 1401-1409 (2015)
- Das S., Mitra S., Combet J., Mukhopadhyay R., Bhattacharyya A.J. Study of solvent relaxation of pristine succinonitrile and succinonitrile-salt mixtures using quasielastic neutron scattering  
*Solid State Ionics* **279**, 72-77 (2015)
- de Melo Marques F.A., Angelini R., Zaccarelli E., Farago B., Ruta B., Ruocco G., Ruzicka B. Structural and microscopic relaxations in a colloidal glass  
*Soft Matter* **11**, 466-471 (2015)
- Derot C., Porcar L., Lee Y., Pincus P.A., Jho Y., In M. Electrostatic interaction between nonuniformly charged colloids: Experimental and numerical study  
*Langmuir* **31**, 1649-1659 (2015)
- Fausser H, von Klitzing R, Campbell R.A. Surface adsorption of oppositely charged C<sub>14</sub> TAB-PAMPS mixtures at the air/water interface and the impact on foam film stability  
*Journal of Physical Chemistry B* **119**, 348-358 (2015)
- Fumagalli M., Lyonnard S., Prajapati G., Berrod Q., Porcar L., Guillermo A., Gébel G. Fast water diffusion and long-term polymer reorganization during nafion membrane hydration evidenced by time-resolved small-angle neutron scattering  
*Journal of Physical Chemistry B* **119**, 7068-7076 (2015)
- Gooßen S., Krutyeva M., Sharp M., Feoktystov A., Allgaier J., Pyckhout-Hintzen W., Wischniewski A., Richter D. Sensing polymer chain dynamics through ring topology: A neutron spin echo study  
*Physical Review Letters* **115**, 148302-1-148302-5 (2015)
- Grimaldo M., Roosen-Runge F., Hennig M., Zanini F., Zhang F., Jalarvo N., Zamponi M., Schreiber F., Seydel T. Hierarchical molecular dynamics of bovine serum albumin in concentrated aqueous solution below and above thermal denaturation  
*Physical Chemistry Chemical Physics* **17**, 4645-4655 (2015)
- Grimaldo M., Roosen-Runge F., Hennig M., Zanini F., Zhang F., Zamponi M., Jalarvo N., Schreiber F., Seydel T. Salt-induced universal slowing down of the short-time self-diffusion of a globular protein in aqueous solution  
*Journal of Physical Chemistry Letters* **6**, 2577-2582 (2015)

- Grimaldo M., Roosen-Runge F., Jalarvo N., Zamponi M., Zanini F., Hennig M., Zhang F., Schreiber F., Seydel T. High-resolution neutron spectroscopy on protein solution samples  
EPJ Web of Conferences **83**, 02005-1-02005-6 (2015)
- Guilbert A.A.Y., Urbina A., Abad J., Díaz-Paniagua C., Batallán F., Seydel T., Zbiri M., Garcia-Sakai V., Nelson J. Temperature-dependent dynamics of polyalkylthiophene conjugated polymers: A combined neutron scattering and simulation study  
Chemistry of Materials **27**, 7652-7661 (2015)
- Gumí-Audenis B., Carlà F., Vitorino M.V., Panzarella A., Porcar L., Boilot M., Guerber S., Bernard P., Rodrigues M.S., Sanz F., Giannotti M.I., Costa L. Custom AFM for X-ray beamlines: In situ biological investigations under physiological conditions  
Journal of Synchrotron Radiation **22**, 1364-1371 (2015)
- Gupta S., Camargo M., Stellbrink J., Allgaier J., Radulescu A., Lindner P., Zaccarelli E., Likos C.N., Richter D. Dynamic phase diagram of soft nanocolloids  
Nanoscale **7**, 13924-13934 (2015)
- Hoffmann I., Farago B., Schweins R., Falus P., Sharp M., Prévost S., Gradzielski M. On the mesoscopic origins of high viscosities in some polyelectrolyte-surfactant mixtures  
Journal of Chemical Physics **143**, 074902-1-074902-11 (2015)
- Kent B., Hauß T., Demé B., Cristiglio V., Darwish T., Hunt T., Bryant G., Garvey C.J. Direct comparison of disaccharide interaction with lipid membranes at reduced hydrations  
Langmuir **31**, 9134-9141 (2015)
- Kepola E.J., Loizou E., Patrickios C.S., Leontidis E., Voutouri C., Stylianopoulos T., Schweins R., Gradzielski M., Krumm C., Tiller J.C., Kushnir M., Wesdemiotis C. Amphiphilic polymer conetworks based on end-linked "core-first" star block copolymers: Structure formation with long-range order  
ACS Macro Letters **4**, 1163-1168 (2015)
- Khan A.N., Schmutz M., Lacava J., Al Ouahabi A., Nguyen T.T.T., Mesini P.J., Guenet J.M. Design of nanohybrid systems from a partially fluorinated organogelator and syndiotactic polystyrene thermoreversible gel  
Langmuir **31**, 7666-7672 (2015)
- Khoshima A., Dehghani M.R., Touraud D., Marcus J., Diat O., Kunz W. Nanostructures in clear and homogeneous mixtures of rapeseed oil and ethanol in the presence of green additives  
Colloid and Polymer Science **293**, 3225-3235 (2015)
- Krasnov I., Seydel T., Müller M. Fractional dynamics in silk: From molecular picosecond subdiffusion to macroscopic long-time relaxation  
Physical Review E **91**, 042716-1-042716-4 (2015)
- Krause C., Zorn R., Frick B., Schönhals A. Quasi- and inelastic neutron scattering to investigate the molecular dynamics of discotic molecules in the bulk  
EPJ Web of Conferences **83**, 02017-1-02017-4 (2015)
- Krutyeva M., Brás A.R., Antonius W., Hövelmann C.H., Poulos A.S., Allgaier J., Radulescu A., Lindner P., Pyckhout-Hintzen W., Wischnewski A., Richter D. Association behavior, diffusion, and viscosity of end-functionalized supramolecular poly(ethylene glycol) in the melt state  
Macromolecules **48**, 8933-8946 (2015)
- Krzyzanowski N., Porcar L., Garg S., Butler P., Castro-Roman F., Bautista P.J., Perez-Salas U. Reply to the "Comment on "Cholesterol solubility limit in lipid membranes probed by small angle neutron scattering and MD simulations"" by R. Epanand, *Soft Matter*, 2015, 11, DOI: 10.1039/C4SM02819H  
*Soft Matter* **11**, 5582-5584 (2015)
- Kwaambwa H.M., Hellsing M.S., Rennie A.R., Barker R. Interaction of *Moringa oleifera* seed protein with a mineral surface and the influence of surfactants  
Journal of Colloid and Interface Science **448**, 339-346 (2015)
- Laupheimer M., Preisig N., Stubenrauch C. The molecular organogel *n*-decane/12-hydroxyoctadecanoic acid: Sol-gel transition, rheology, and microstructure  
Colloids and Surfaces A **469**, 315-325 (2015)
- Lederer A., Burchard W., Hartmann T., Haataja J.S., Houbenov N., Janke A., Friedel P., Schweins R., Lindner P. Dendronisierte hochverzweigte Makromoleküle: weiche Materie mit einer neuartigen Segmentverteilung  
Angewandte Chemie **127**, 12764-12770 (2015)
- Lederer A., Burchard W., Hartmann T., Haataja J.S., Houbenov N., Janke A., Friedel P., Schweins R., Lindner P. Dendronized hyperbranched macromolecules: Soft matter with a novel type of segmental distribution  
Angewandte Chemie International Edition **54**, 12578-12583 (2015)
- López-Barrón C.R., Wagner N.J., Porcar L. Layering, melting, and recrystallization of a close-packed micellar crystal under steady and large-amplitude oscillatory shear flows  
Journal of Rheology **59**, 793-820 (2015)
- Magerl D., Philipp M., Metwalli E., Guffreund P., Qiu X.P., Winnik F.M., Müller-Buschbaum P. Influence of confinement on the chain conformation of cyclic poly(N-isopropylacrylamide)  
ACS Macro Letters **4**, 1362-1365 (2015)

## PUBLICATIONS

- Martin J.R.S., Bihannic I., Santos C., Farinha J.P.S., Demé B., Leermakers F.A.M., Pinheiro J.P., Rotureau E., Duval J.F.L. Structure of multiresponsive brush-decorated nanoparticles: A combined electrokinetic, DLS, and SANS study  
*Langmuir* **31**, 4779-4790 (2015)
- Mears L.I.E., de Vos W.M., Prescott S.W., Magro G., Rogers S., Skoda M.W.A., Watkins E.B., Zimmermann H., Richardson R.M. The adsorption of fluorinated dopants at the surface of 5CB: A neutron reflection study  
*Liquid Crystals* **42**, 900-908 (2015)
- Mell M., Moleiro L.H., Hertle Y., López-Montero I., Cao F.J., Fouquet P., Hellweg T., Monroy F. Fluctuation dynamics of bilayer vesicles with intermonolayer sliding: Experiment and theory  
*Chemistry and Physics of Lipids* **185**, 61-77 (2015)
- Mojumdar E.H., Gooris G.S., Barlow D.J., Lawrence M.J., Demé B., Bouwstra J.A. Skin lipids: Localization of ceramide and fatty acid in the unit cell of the long periodicity phase  
*Biophysical Journal* **108**, 2670-2679 (2015)
- Môn D., Higgins A.M., James D., Hampton M., MacDonald J.E., Ward M.B., Guffreund P., Lilliu S., Rawle J. Bimodal crystallization at polymer-fullerene interfaces  
*Physical Chemistry Chemical Physics* **17**, 2216-2227 (2015)
- Newbloom G.M., Hoffmann S.M., West A.F., Gile M.C., Sista P., Cheung H.K.C., Luscombe C.K., Pfäendtner J., Pozzo L.D. Solvatochromism and conformational changes in fully dissolved poly(3-alkylthiophene)s  
*Langmuir* **31**, 458-468 (2015)
- Ngai K.L., Capaccioli S., Prevosto D., Wang L.M. Coupling of caged molecule dynamics to JG  $\beta$ -relaxation II: Polymers  
*Journal of Physical Chemistry B* **119**, 12502-12518 (2015)
- Pahnke K., Brandt J., Gryn'ova G., Lindner P., Schweins R., Schmidt F.G., Lederer A., Coote M.L., Barner-Kowollik C. Entropy driven chain effects on ligation chemistry  
*Chemical Science* **6**, 1061-1074 (2015)
- Penfold J., Thomas R.K., Li P., Xu H., Tucker I.M., Petkov J.T., Sivia D.S. Multivalent-counterion-induced surfactant multilayer formation at hydrophobic and hydrophilic solid-solution interfaces  
*Langmuir* **31**, 6773-6781 (2015)
- Perticaroli S., Russo D., Paolantoni M., González M.A., Sassi P., Nickels J.D., Ehlers G., Comez L., Pellegrini E., Fioretto D., Morresi A. Painting biological low-frequency vibrational modes from small peptides to proteins  
*Physical Chemistry Chemical Physics* **17**, 11423-11431 (2015)
- Pütz Y., Grassberger I., Lindner P., Schweins R., Strey R., Sottmann T. Unexpected efficiency boosting in CO<sub>2</sub>-microemulsions: A cyclohexane depletion zone near the amphiphilic film evidenced by a systematic SANS contrast variation study  
*Physical Chemistry Chemical Physics* **17**, 6122-6134 (2015)
- Qu L., Fan J., Ren Y., Xiong K., Yan M., Tuo X., Terech P., Royal G. Homo- and heterodinuclear coordination polymers based on a tritopic cyclam bis-terpyridine unit: Structure and rheological properties  
*Materials Chemistry and Physics* **153**, 54-62 (2015)
- Regan P.H. Precision measurement of sub-nanosecond lifetimes of excited nuclear states using fast-timing coincidences with LaBr<sub>3</sub>(Ce) detectors  
*Radiation Physics and Chemistry* **116**, 38-42 (2015)
- Rennie A.R., Helsing M.S., Lindholm E., Olsson A. Note: Sample cells to investigate solid/liquid interfaces with neutrons  
*Review of Scientific Instruments* **86**, 016115-1-016115-3 (2015)
- Riemer S., Prévost S., Dzionara M., Appavou M.S., Schweins R., Gradzielski M. Aggregation behaviour of hydrophobically modified polyacrylate – Variation of alkyl chain length  
*Polymer* **70**, 194-206 (2015)
- Roger K., Olsson U., Schweins R., Cabane B. Emulsion ripening through molecular exchange at droplet contacts  
*Angewandte Chemie International Edition* **54**, 1452-1455 (2015)
- Roger K., Olsson U., Schweins R., Cabane B. Emulsion ripening through molecular exchange at droplet contacts  
*Angewandte Chemie* **127**, 1472-1475 (2015)
- Roosen-Runge F., Seydel T. A generalized mean-squared displacement from inelastic fixed window scans of incoherent neutron scattering as a model-free indicator of anomalous diffusion confinement  
*EPJ Web of Conferences* **83**, 02015-1-02015-5 (2015)
- Rossetti F.F., Schneck E., Fragneto G., Kononov O.V., Tanaka M. Generic role of polymer supports in the fine-adjustment of interfacial interactions between solid substrates and model cell membranes  
*Langmuir* **31**, 4473-4480 (2015)
- Rossi B., Venuti V., Paciaroni A., Mele A., Longeville S., Natali F., Crupi V., Majolino D., Trotta F. Thermal fluctuations in chemically cross-linked polymers of cyclodextrins  
*Soft Matter* **11**, 2183-2192 (2015)
- Saha D., Testard F., Grillo I., Zouhri F., Desmaele D., Radulescu A., Desert S., Brulet A., Couvreur P., Spalla O. The role of solvent swelling in the self-assembly of squalene based nanomedicines  
*Soft Matter* **11**, 4173-4179 (2015)

- Sauter A., Roosen-Runge F., Zhang F., Lotze G., Feoktystov A., Jacobs R.M.J., Schreiber F. FD Nucleation: On the question of two-step nucleation in protein crystallization  
*Faraday Discussions* **179**, 41-58 (2015)
- Sauter A., Roosen-Runge F., Zhang F., Lotze G., Jacobs R.M.J., Schreiber F. Real-time observation of nonclassical protein crystallization kinetics  
*Journal of the American Chemical Society* **137**, 1485-1491 (2015)
- Schlauch A., Kowalik B., Kanduč M., Schneck E., Netz R.R. Physical mechanisms of the interaction between lipid membranes in the aqueous environment  
*Physica A* **418**, 105-125 (2015)
- Schmiele M., Knittel C., Unruh T., Busch S., Morhenn H., Boesecke P., Funari S.S., Schweins R., Lindner P., Westermann M., Steiniger F. Analysis of the structure of nanocomposites of triglyceride platelets and DNA  
*Physical Chemistry Chemical Physics* **17**, 17939-17956 (2015)
- Schneck E., Demé B. Structural characterization of soft interfaces by standing-wave fluorescence with X-rays and neutrons  
*Current Opinion in Colloid & Interface Science* **20**, 244-252 (2015)
- Scoppola E., Watkins E., Li Destri G., Porcar L., Campbell R.A., Konovalov O., Fragneto G., Diat O. Structure of a liquid/liquid interface during solvent extraction combining X-ray and neutron reflectivity measurements  
*Physical Chemistry Chemical Physics* **17**, 15093-15097 (2015)
- Smith G.N., Grillo I., Rogers S.E., Eastoe J. Surfactants with colloids: Adsorption or absorption?  
*Journal of Colloid and Interface Science* **449**, 205-214 (2015)
- Theis-Bröhl K., Gutfreund P., Vorobiev A., Wolff M., Toperverg B.P., Dura J.A., Borchers J.A. Self assembly of magnetic nanoparticles at silicon surfaces  
*Soft Matter* **11**, 4695-4704 (2015)
- Thomas L.H., Forsyth V.T., Martel A., Grillo I., Altaner C.M., Jarvis M.C. Diffraction evidence for the structure of cellulose microfibrils in bamboo, a model for grass and cereal celluloses  
*BMC Plant Biology* **15**, 153-1-153-7 (2015)
- Wildes A., Khadeeva L., Trewby W., Valle-Orero J., Studer A., Garden J.L., Peyrard M. Melting of highly oriented fiber DNA subjected to osmotic pressure  
*Journal of Physical Chemistry B* **119**, 4441-4449 (2015)
- Yanez Arteta M., Berti D., Montis C., Campbell R.A., Eriksson C., Clifton I.A., Skoda M.W.A., Soltwedel O., Koutsioubas A, Baglioni P., Nylander T. On the formation of dendrimer/nucleolipids surface films for directed self-assembly  
*Soft Matter* **11**, 1973-1990 (2015)
- Yang B., Lowe J.P., Schweins R., Edler K.J. Small angle neutron scattering studies on the internal structure of poly(lactide-co-glycolide)-*block*-poly(ethylene glycol) nanoparticles as drug delivery vehicles  
*Biomacromolecules* **16**, 457-464 (2015)
- Zhong Q., Metwalli E., Rawolle M., Kaune G., Bivigou-Koumba A.M., Laschewsky A., Papadakis C.M., Cubitt R., Müller-Buschbaum P. Rehydration of thermoresponsive poly(monomethoxydiethylene glycol acrylate) films probed in situ by real-time neutron reflectivity  
*Macromolecules* **48**, 3604-3612 (2015)
- Busch S., Lorenz C.D., Taylor J., Pardo L.C., McLain S.E. Short-range interactions of concentrated proline in aqueous solution  
*Journal of Physical Chemistry B* **118**, 14267-14277 (2014)
- Kyriakos K., Philipp M., Adelsberger J., Jaksch S., Berezkin A.V., Lugo D.M., Richtering W., Grillo I., Miasnikova A., Laschewsky A., Müller-Buschbaum P., Papadakis C.M. Cononsolvency of water/methanol mixtures for PNIPAM and PS-*b*-PNIPAM: Pathway of aggregate formation investigated using time-resolved SANS  
*Macromolecules* **47**, 6867-6879 (2014)
- Lopez C.G., Rogers S.E., Colby R.H., Graham P., Cabral J.T. Structure of sodium carboxymethyl cellulose aqueous solutions: A SANS and rheology study  
*Journal of Polymer Science B* **53**, 492-501 (2014)
- Milyaeva O.Y., Campbell R.A., Lin S.Y., Loglio G., Miller R., Tihonov M.M., Varga I., Volkova A.V., Noskov B.A. Synergetic effect of sodium polystyrene sulfonate and guanidine hydrochloride on the surface properties of lysozyme solutions  
*RSC Advances* **5**, 7413-7422 (2014)
- Mütze A., Heunemann P., Fischer P. On the appearance of vorticity and gradient shear bands in wormlike micellar solutions of different CPCL/salt systems  
*Journal of Rheology* **58**, 1647-1672 (2014)
- Rabe C., Fleige E., Vogtt K., Szekeley N., Lindner P., Burchard W., Haag R., Ballauff M. The multi-domain nanoparticle structure of a universal core-multi-shell nanocarrier  
*Polymer* **55**, 6735-6742 (2014)
- Schmid A.J., Riest J., Eckert T., Lindner P., Naegele G., Richtering W. Comparison of the microstructure of stimuli responsive zwitterionic PNIPAM-co-sulfobetaine microgels with PNIPAM microgels and classical hard-sphere systems  
*Zeitschrift für Physikalische Chemie* **228**, 1033-1052 (2014)
- Serrano Ruiz D., Alonso Cristobal P., Laurenti M., Rubio Retama J., López-Cabarcos E. Polymer diffusion in microgels with upper critical solution temperature as studied by incoherent neutron scattering  
*Journal of Physics: Conference Series* **549**, 012012-1-012012-5 (2014)

## PUBLICATIONS

Uchman M., Pispas S., Kováčik L., Štěpánek M. Morphologically tunable coassembly of double hydrophilic block polyelectrolyte with oppositely charged fluorosurfactant  
*Macromolecules* **47**, 7081-7090 (2014)

van Hameren R., van Buul Arend M., Visser D., Heenan R.K., King S.M., Rowan A.E., Nolte R.J.M., Pyckhout-Hintzen W., Elemans J.A.A.W., Feiters M.C. Solution scattering studies of the hierarchical assembly of porphyrin trimers based on benzene triscarboxamide  
*Soft Matter* **10**, 9688-9694 (2014)

---

## Spectroscopy in Solid State Physics and Chemistry

---

Appel M., Frick B., Elbert J., Gallei M., Stühn B. Direct observation of electronic and nuclear ground state splitting in external magnetic field by inelastic neutron scattering on oxidized ferrocene and ferrocene containing polymers  
*EPJ Web of Conferences* **83**, 02001-1-02001-4 (2015)

Appel M., Frick B., Spehr T.L., Stühn B. Molecular ring rotation in solid ferrocene revisited  
*Journal of Chemical Physics* **142**, 114503-1-114503-18 (2015)

Berrod Q., Lyonnard S., Guillermo A., Ollivier J., Frick B., Gébel G. QENS investigation of proton confined motions in hydrated perfluorinated sulfonic membranes and self-assembled surfactants  
*EPJ Web of Conferences* **83**, 02002-1-02002-7 (2015)

Berrod Q., Lyonnard S., Guillermo A., Ollivier J., Frick B., Manseri A., Améduri B., Gébel G. Nanostructure and transport properties of proton conducting self-assembled perfluorinated surfactants: A bottom-up approach toward PFSA fuel cell membranes  
*Macromolecules* **48**, 6166-6176 (2015)

Bonino F., Groppo E., Prestipino C., Agostini G., Piovano A., Gianolio D., Mino L., Gallo E., Lamberti C. Catalyst characterization by XAS and XES spectroscopies: In situ and operando experiments In «Synchrotron Radiation» (2015, Springer Verlag) pp. 717-736

Bouyrie Y., Candolfi C., Pailhès S., Koza M.M., Malaman B., Dauscher A., Tobola J., Boisron O., Saviot L., Lenoir B. From crystal to glass-like thermal conductivity in crystalline minerals  
*Physical Chemistry Chemical Physics* **17**, 19751-19758 (2015)

Buhot J., Méasson M.A., Gallais Y., Cazayous M., Sacuto A., Bourdarot F., Raymond S., Lapertot G., Aoki D., Regnault L.P., Ivanov A., Piekarz P., Parlinski K., Legut D., Homes C.C., Lejay P., Lobo R.P.S.M. Lattice dynamics of the heavy-fermion compound URu<sub>2</sub>Si<sub>2</sub>  
*Physical Review B* **91**, 035129-1-035129-13 (2015)

Candolfi C., Aydemir U., Koza M.M., Baitinger M., Grin Y., Steglich F. Inelastic neutron scattering study of the lattice dynamics in the clathrate compound BaGe<sub>5</sub>  
*Journal of Physics: Condensed Matter* **27**, 485401-1-485401-7 (2015)

Chaput L., Bourgeois J., Prytulak A., Koza M.M., Scherrer H. Simple view of the Mg<sub>2</sub>Si<sub>1-x</sub>Sn<sub>x</sub> phonon spectrum: Sn resonances and mean field  
*Physical Review B* **91**, 064304-1-064304-6 (2015)

Gaboardi M., Cavallari C., Magnani G., Pontiroli D., Rols S., Riccò M. Hydrogen storage mechanism and lithium dynamics in Li<sub>2</sub>C<sub>60</sub> investigated by  $\mu$ SR  
*Carbon* **90**, 130-137 (2015)

Galéra R.M., Opagiste C., Amara M., Zbiri M., Rols S. First neutron studies of the magnetism and rattling modes in CePt<sub>4</sub>Ge<sub>12</sub>  
*Journal of Physics: Conference Series* **592**, 012011-1-012011-5 (2015)

Goel P., Gupta M.K., Mittal R., Rols S., Achary S.N., Tyagi A.K., Chaplot S.L. Inelastic neutron scattering studies of phonon spectra, and simulations of pressure-induced amorphization in tungstates AWO<sub>4</sub> (A = Ba, Sr, Ca, and Pb)  
*Physical Review B* **91**, 094304-1-094304-8 (2015)

Gupta M.K., Mittal R., Zbiri M., Sharma N., Rols S., Schober H., Chaplot S.L. Spin-phonon coupling and high-temperature phase transition in multiferroic material YMnO<sub>3</sub>  
*Journal of Materials Chemistry C* **3**, 11717-11728 (2015)

Hermet P., Koza M.M., Ritter C., Reibel C., Viennois R. Origin of the highly anisotropic thermal expansion of the semiconducting ZnSb and relations with its thermoelectric applications  
*RSC Advances* **5**, 87118-87131 (2015)

Jobic H., Kolokolov D.I., Stepanov A.G., Koza M.M., Ollivier J. Diffusion of CH<sub>4</sub> in ZIF-8 studied by quasi-elastic neutron scattering  
*Journal of Physical Chemistry C* **119**, 16115-16120 (2015)

Juranyi F., Månsson M., Gavilano J.L., Mena M., Pomjakushina E., Medarde M., Sugiyama J., Kamazawa K., Batlogg B., Ott H.R., Seydel T. Dynamics across the structural transitions at elevated temperatures in Na<sub>0.7</sub>CoO<sub>2</sub>  
*EPJ Web of Conferences* **83**, 02008-1-02008-5 (2015)

Kolokolov D.I., Jobic H., Rives S., Yot P.G., Ollivier J., Trens P., Stepanov A.G., Maurin G. Diffusion of benzene in the breathing metal-organic framework MIL-53(Cr): A joint experimental-computational investigation  
Journal of Physical Chemistry C **119**, 8217-8225 (2015)

Koza M.M., Boehm M., Sischka E., Schnelle W., Mutka H., Leithe-Jasper A. Low-energy phonon dispersion in  $\text{LaFe}_4\text{Sb}_{12}$   
Physical Review B **91**, 014305-1-014305-8 (2015)

Koza M.M., Mutka H., Okamoto Y., Yamaura J.I., Hiroi Z. On the microscopic dynamics of the 'Einstein solids'  $\text{AlV}_2\text{Al}_{20}$  and  $\text{GaV}_2\text{Al}_{20}$  and of  $\text{YV}_2\text{Al}_{20}$ : A benchmark system for 'rattling' excitations  
Physical Chemistry Chemical Physics **17**, 24837-24850 (2015)

Mazzone D.G., Gerber S., Gavilano J.L., Sibille R., Medarde M., Delley B., Ramakrishnan M., Neugebauer M., Regnault L.P., Chernyshov D., Piovano A., Fernández-Díaz M.T., Keller L., Cervellino A., Pomjakushina E., Conder K., Kenzelmann M. Crystal structure and phonon softening in  $\text{Ca}_3\text{Ir}_4\text{Sn}_{13}$   
Physical Review B **92**, 024101-1-024101-6 (2015)

Pajzderska A., Druzbicki K., Kiwiłsza A., González M.A., Jarek M., Mielcarek J., Wąsicki J. On the relaxation dynamics in active pharmaceutical ingredients: Solid-state  $^1\text{H}$  NMR, quasi-elastic neutron scattering and periodic DFT study of acebutolol hydrochloride  
RSC Advances **5**, 57502-57514 (2015)

Piovano A. Inelastic neutron scattering applied to materials for energy  
EPJ Web of Conferences **104**, 01006-1-01006-17 (2015)

Piovano A., Ceretti M., Johnson M.R., Agostini G., Paulus W., Lamberti C. Anisotropy in the Raman scattering of a  $\text{CaFeO}_{2.5}$  single crystal and its link with oxygen ordering in Brownmillerite frameworks  
Journal of Physics: Condensed Matter **27**, 225403-1-225403-11 (2015)

Piovano A., Lazzarini A., Pellegrini R., Leofanti G., Agostini G., Rudié S., Bugaev A.L., Lamberti C., Groppo E. Progress in the characterization of the surface species in activated carbons by means of INS spectroscopy coupled with detailed DFT calculations  
Advances in Condensed Matter Physics **2015**, 803267-1-803267-8 (2015)

Rols S., Pontiroli D., Cavallari C., Gaboardi M., Aramini M., Richard D., Johnson M.R., Zanotti J.M., Suard E., Maccarini M., Riccò M. Structure and dynamics of the fullerene polymer  $\text{Li}_4\text{C}_{60}$  studied with neutron scattering  
Physical Review B **92**, 014305-1-014305-33 (2015)

Tamtogl A., Bahn E., Zhu J., Fouquet P., Ellis J., Allison W. Graphene on Ni(111): Electronic corrugation and dynamics from helium atom scattering  
Journal of Physical Chemistry C **119**, 25983-25990 (2015)

Bedouret L., Judeinstein P., Ollivier J., Combet J., Desmedt A. Proton diffusion in the hexafluorophosphoric acid clathrate hydrate  
Journal of Physical Chemistry B **118**, 13357-13364 (2014)

Burankova T., Hempelmann R., Wildes A., Embs J.P. Collective ion diffusion and localized single particle dynamics in pyridinium-based ionic liquids  
Journal of Physical Chemistry B **118**, 14452-14460 (2014)

Mendes P.A.P., Horcajada P., Rives S., Ren H., Rodrigues A.E., Devic T., Magnier E., Trens P., Jobic H., Ollivier J., Maurin G., Serre C., Silva J.A.C. A complete separation of hexane isomers by a functionalized flexible metal organic framework  
Advanced Functional Materials **24**, 7666-7673 (2014)

---

## Theory

---

Balédent V., Chattopadhyay S., Fertey P., Lepetit M.B., Greenblatt M., Wanklyn B., Saouma F.O., Jang J.I., Foury-Leylekan P. Evidence for room temperature electric polarization in  $\text{RMn}_2\text{O}_5$  multiferroics  
Physical Review Letters **114**, 117601-1-117601-5 (2015)

Das S.D., Laad M.S., Craco L., Gillett J., Tripathi V., Sebastian S.E. Quantum criticality in the 122 iron pnictide superconductors emerging from orbital-selective Mottness  
Physical Review B **92**, 155112-1-155112-8 (2015)

Gu B., Xu Z., Mori M., Ziman T., Maekawa S. Enhanced spin Hall effect by electron correlations in CuBi alloys  
Journal of Applied Physics **117**, 17D503-1-17D503-4 (2015)

Hanot S., Lyonnard S., Mossa S. Water confined in self-assembled ionic surfactants nano-structures  
Soft Matter **11**, 2469-2478 (2015)

Jabbari-Farouji S., Rottler J., Lame O., Makke A., Perez M., Barrat J.L. Correlation of structure and mechanical response in solid-like polymers  
Journal of Physics: Condensed Matter **27**, 194131-1-194131-10 (2015)

Jabbari-Farouji S., Rottler J., Lame O., Makke A., Perez M., Barrat J.L. Plastic deformation mechanisms of semicrystalline and amorphous polymers  
ACS Macro Letters **4**, 147-150 (2015)

Nicolas A., Puosi F., Mizuno H., Barrat J.L. Elastic consequences of a single plastic event: Towards a realistic account of structural disorder and shear wave propagation in models of flowing amorphous solids  
Journal of the Mechanics and Physics of Solids **78**, 333-351 (2015)

# PUBLICATIONS

Spagnoli S., Morfin I., González M.A., Carcabal P., Plazanet M.  
Solvent contribution to the stability of a physical gel characterized by quasi-elastic neutron scattering  
*Langmuir* **31**, 2554-2560 (2015)

Topozini L., Roosen-Runge F., Bewley R.I., Dalgliesh R.M., Perring T., Seydel T., Glyde H.R., García Sakai V., Rheinstädter M.C. Anomalous and anisotropic nanoscale diffusion of hydration water molecules in fluid lipid membranes  
*Soft Matter* **11**, 8354-8371 (2015)

Toulouse C., Cazayous M., de Brion S., Lévy-Bertrand F., Barkaoui H., Lejay P., Chaix L., Lepetit M.B., Brubach J.B., Roy P. Phonons in the multiferroic langasite  $\text{Ba}_3\text{NbFe}_3\text{Si}_2\text{O}_{14}$ : Evidence for symmetry breaking  
*Physical Review B* **92**, 104302-1-104302-9 (2015)

Xu Z., Gu B., Mori M., Ziman T., Maekawa S. Analysis of the spin Hall effect in CuIr alloys: Combined approach of density functional theory and Hartree-Fock approximation  
*Journal of Applied Physics* **117**, 17D510-1-17D510-4 (2015)

Xu Z., Gu B., Mori M., Ziman T., Maekawa S. Sign change of the spin Hall effect due to electron correlation in nonmagnetic CuIr alloys  
*Physical Review Letters* **114**, 017202-1-017202-5 (2015)

Diallo S.O., Azuah R.T., Abernathy D.L., Taniguchi J., Suzuki M., Bossy J., Mulders N., Glyde H.R. Evidence for a common physical origin of the Landau and BEC theories of superfluidity  
*Physical Review Letters* **113**, 215302-1-215302-5 (2014)

Schober H. An introduction to the theory of nuclear neutron scattering in condensed matter  
*Journal of Neutron Research* **17**, 109-357 (2014)

---

## Other

---

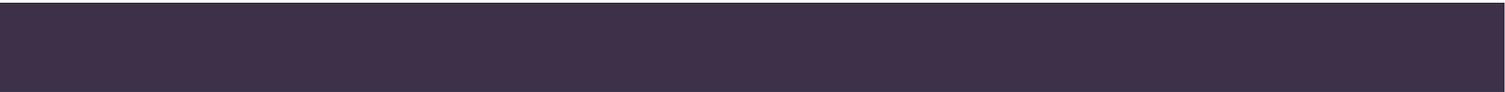
Förster M., Johnson M., Mitchell E. Research infrastructure sites: Added value for local, national and international eco-systems?  
*Neutron News* **26**, 29-30 (2015)

Lander G. The lives and times of pioneering women in physics  
*Neutron News* **26**, 5 (2015)

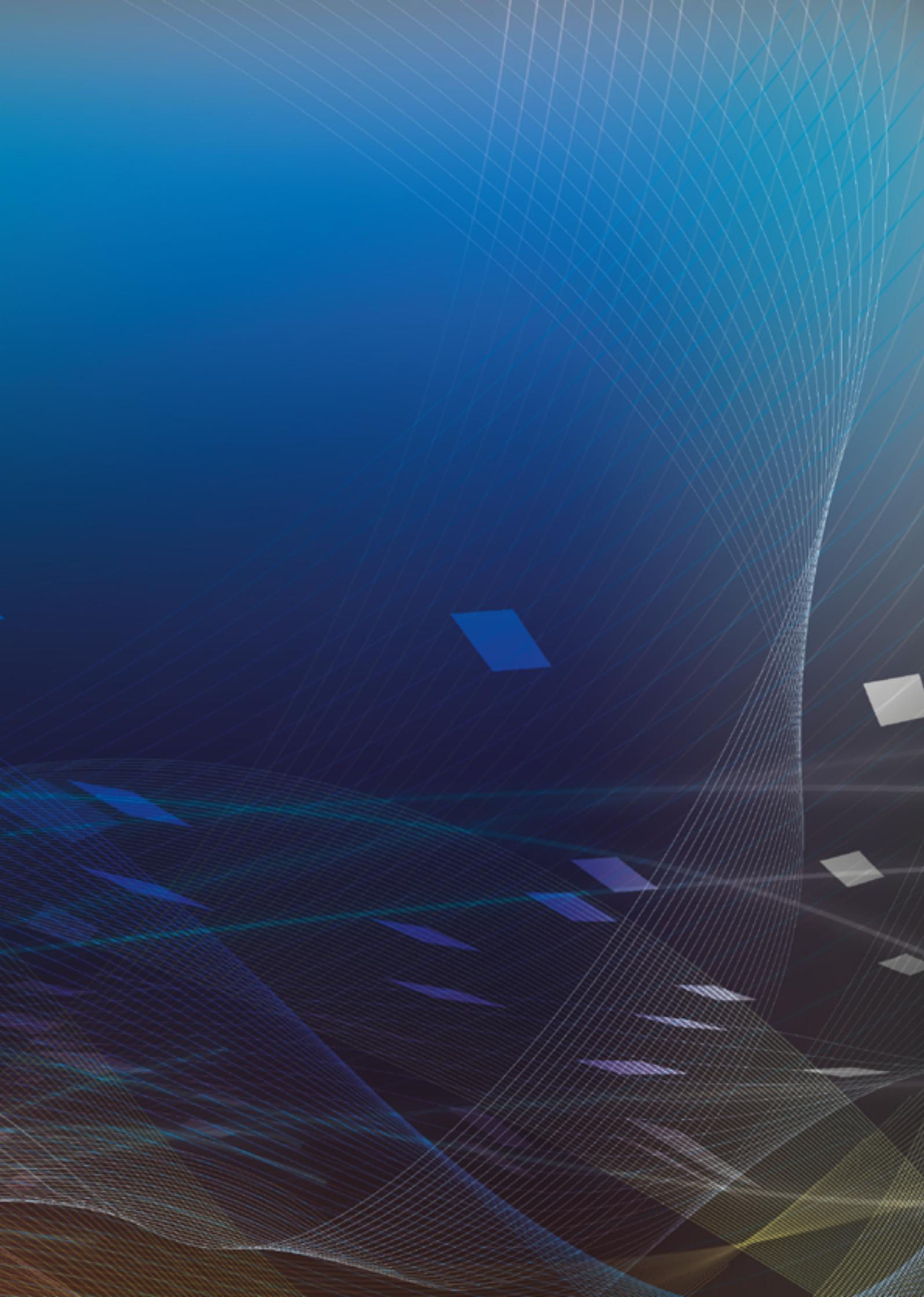
Mutka H. Ten candles for FRM II, Maier-Leibnitz Zentrum celebrates  
*Neutron News* **26**, 2 (2015)

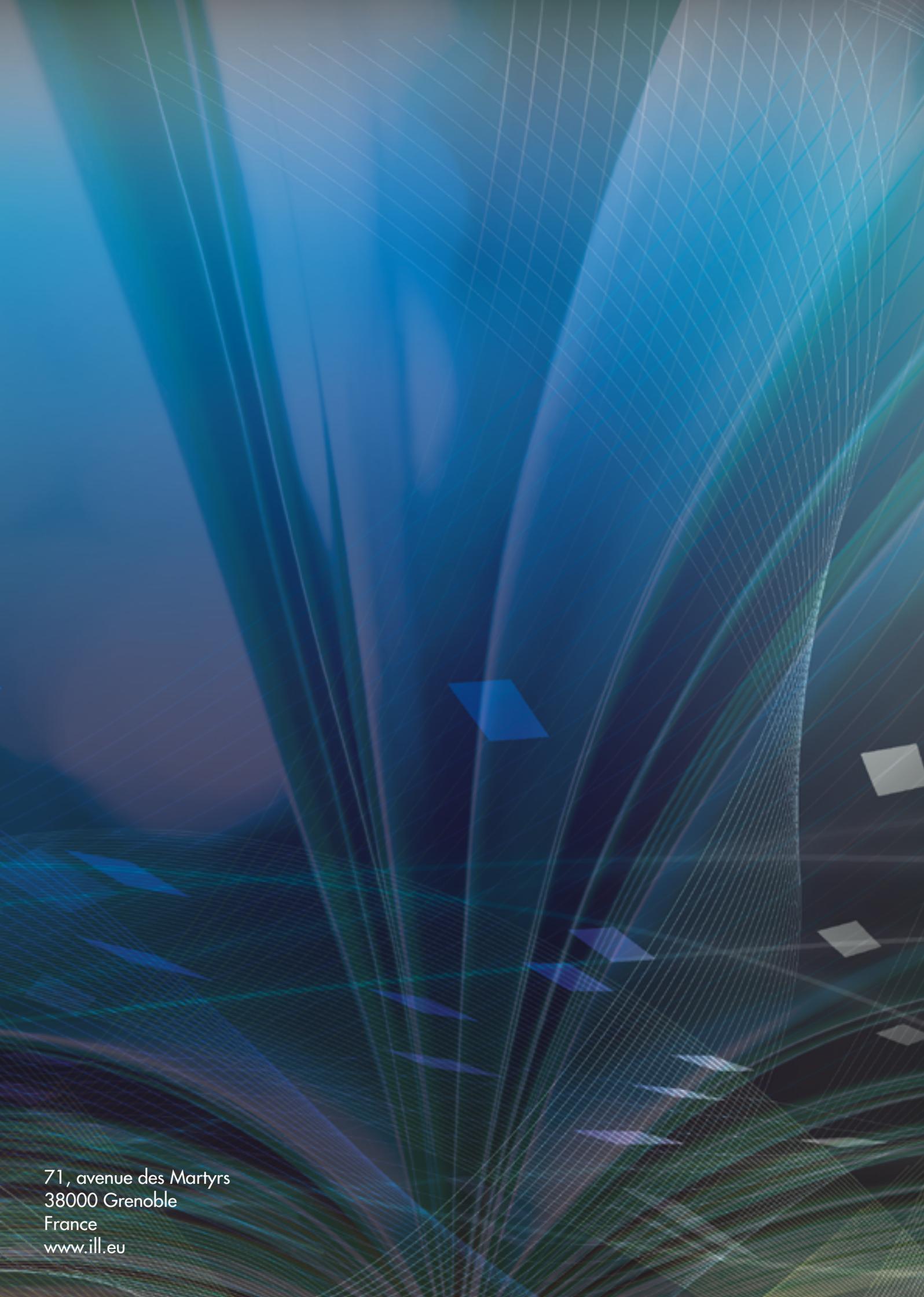
Schober H. Planning for the future  
*Physics World* **28** (2015)

Campbell R. Neutrons for industry  
*Chemistry & Industry* **78**, 32-35 (2014)







The background is a complex, abstract composition of blue and green tones. It features a grid of thin, light-colored lines that create a sense of depth and perspective, resembling a tunnel or a large-scale architectural structure. Several larger, semi-transparent geometric shapes, including squares and rectangles, are scattered throughout the scene, some appearing to float or be attached to the grid. The overall effect is one of modern, digital artistry.

71, avenue des Martyrs  
38000 Grenoble  
France  
[www.ill.eu](http://www.ill.eu)