

# PUBLICATIONS LIST

# 2016



NEUTRONS  
FOR SOCIETY

This document lists all the ILL publications that have been registered at the Joint ILL-ESRF Library in 2016.

In 2016, the ILL received notice of 534 publications by ILL staff and users. The distribution by subject is as follows.

Applied Physics, Instrumentation and Techniques .....	45
Biology .....	46
Crystallography and Chemistry .....	52
Liquids and Glasses .....	32
Magnetic Excitations .....	32
Magnetic Structures .....	76
Materials Science and Engineering .....	48
Nuclear and Particle Physics .....	58
Theory .....	20
Soft Matter .....	91
Spectroscopy in Solid State Physics .....	33
Other .....	1

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 AND CHEMISTRY	7
LIQUIDS AND GLASSES	9
MAGNETIC EXCITATIONS	11
MAGNETIC STRUCTURES	13
MATERIALS SCIENCE AND ENGINEERING	17
NUCLEAR AND PARTICLE PHYSICS	19
SOFT MATTER	23
SPECTROSCOPY IN SOLID STATE PHYSICS	28
THEORY	30
OTHER	30
THESIS	31

# PUBLICATIONS LIST

Institut Laue-Langevin

# 2016

# PUBLICATIONS

## Applied Physics, Instrumentation and Techniques

Adlmann F.A., Pålsson G.K., Bilheux J.C., Ankner J.F., Gutfreund P., Kawecki M., Wolff M. *Överlåtaren*: A fast way to transfer and orthogonalize two-dimensional off-specular reflectivity data  
*Journal of Applied Crystallography* **49**, 2091-2099 (2016)

Arslanov T.R., Kilanski L., López-Moreno S., Mollaev A.Y., Arslanov R.K., Fedorchenko I.V., Chatterji T., Marenkin S.F., Emirov R.M. Changes in the magnetization hysteresis direction and structure-driven magnetoresistance of a chalcopyrite-based magnetic semiconductor  
*Journal of Physics D: Applied Physics* **49**, 125007-1-125007-8 (2016)

Babkevich P., Freeman P.G., Enderle M., Prabhakaran D., Boothroyd A.T. Direct evidence for charge stripes in a layered cobalt oxide  
*Nature Communications* **7**, 11632-1-11632-6 (2016)

Boffy R., Peugeot S., Schweins R., Beaucour J., Bermejo F.J. High thermal neutron flux effects on structural and macroscopic properties of alkali-borosilicate glasses used as neutron guide substrate  
*Nuclear Instruments and Methods in Physics Research A* **374**, 14-19 (2016)

Chen W.C., Gentile T.R., Ye Q., Kirchoff A., Watson S.M., Rodriguez-Rivera J.A., Qiu Y., Broholm C. Recent advancements of wide-angle polarization analysis with <sup>3</sup>He neutron spin filters  
*Journal of Physics: Conference Series* **746**, 012016-1-012016-10 (2016)

Cuello G.J., Darpentigny J., Hennem L., Cormier L., Dupont J., Homatter B., Beuneu B. 7C2, the new neutron diffractometer for liquids and disordered materials at LLB  
*Journal of Physics: Conference Series* **746**, 012020-1-012020-8 (2016)

Cussen L.D., Lieutenant K. Computer simulation tests of optimized neutron powder diffractometer configurations  
*Nuclear Instruments and Methods in Physics Research A* **822**, 97-111 (2016)

Cussen L.D. Optimizing constant wavelength neutron powder diffractometers  
*Nuclear Instruments and Methods in Physics Research A* **821**, 122-135 (2016)

Dewhurst C.D., Grillo I., Honecker D., Bonnaud M., Jacques M., Amrouni C., Perillo-Marcone A., Manzin G., Cubitt R. The small-angle neutron scattering instrument D33 at the Institut Laue-Langevin  
*Journal of Applied Crystallography* **49**, 1-14 (2016)

Dubey P., Sharma V.K., Mitra S., Verma G., Hassan P.A., Johnson M., Mukhopadhyay R. Dynamics of CTAB in hybrid CTAB-hydroxyapatite system  
*AIP Conference Proceedings* **1731**, 040017-1-040017-3 (2016)

Flament C. Etude des évolutions microstructurales sous irradiation de l'alliage d'aluminium 6061-T6  
PhD Thesis (2016)

Grigoriev P.D., Korshunov M.M., Mogilyuk T.I. Slow in-plane magnetoresistance oscillations in multiband quasi-two-dimensional metals  
*Journal of Superconductivity and Novel Magnetism* **29**, 1127-1132 (2016)

Grillo I., Dewhurst C.D. Neutron imaging using a conventional small-angle neutron scattering instrument  
*Journal of Applied Crystallography* **49**, 736-742 (2016)

Hattingh D.G., James M.N., Newby M., Scheepers R., Doubell P. Damage assessment and refurbishment of steam turbine blade/rotor attachment holes  
*Theoretical and Applied Fracture Mechanics* **83**, 125-134 (2016)

Hazra S.K., Hughes D.J., Pereira M.P., Rolfe B.F. Forming parts over small radii  
*Journal of Physics: Conference Series* **734**, 032096-1-032096-4 (2016)

Hidalgo J.I., Fernández R., Colmenar J.M., Cioffi F., Risco-Martín J.L., González-Doncel G. Using evolutionary algorithms to determine the residual stress profile across welds of age-hardenable aluminum alloys  
*Applied Soft Computing* **40**, 429-438 (2016)

Howard C., Skipper N., Shaffer M., Milner E. Graphene solutions  
Internal Report (2016)

Hutanu V., Luberstetter W., Bourgeat-Lami E., Meven M., Sazonov A., Steffen A., Heger G., Roth G., Lelièvre-Berna E. Implementation of a new Cryopad on the diffractometer POLI at MLZ  
*Review of Scientific Instruments* **87**, 105108-1-105108-10 (2016)

James M.N., Hattingh D.G., Asquith D., Newby M., Doubell P. Applications of residual stress in combatting fatigue and fracture  
*Procedia Structural Integrity* **2**, 11-25 (2016)

Klauser C., Bigault T., Böni P., Courtois P., Devishvili A., Rebrova N., Schneider M., Soldner T. Depolarization in polarizing supermirrors  
*Nuclear Instruments and Methods in Physics Research A* **840**, 181-185 (2016)

Klotz S., Strässle T., Lebert B., d'Astuto M., Hansen T. High pressure neutron diffraction to beyond 20GPa and below 1.8K using Paris-Edinburgh load frames  
*High Pressure Research* **36**, 73-78 (2016)

Kulin G.V., Frank A.I., Goryunov S.V., Kustov D.V., Geltenbort P., Jentschel M., Lauss B., Schmidt-Wellenburg P. Time-of-flight Fourier UCN spectrometer  
Nuclear Instruments and Methods in Physics Research A **819**, 67-72 (2016)

Maruyama R., Bigault T., Wildes A.R., Dewhurst C.D., Soyama K., Courtois P. Study of the in-plane magnetic structure of a layered system using polarized neutron scattering under grazing incidence geometry  
Nuclear Instruments and Methods in Physics Research A **819**, 37-53 (2016)

Moubah R., Magnus F., Warnatz T., Palsson G.K., Kapaklis V., Ukleev V., Devishvili A., Palisaitis J., Persson P.O.Å., Hjörvarsson B. Discrete layer-by-layer magnetic switching in Fe/MgO(001) superlattices  
Physical Review Applied **5**, 044011-1-044011-7 (2016)

Mühlbauer S., Heinemann A., Wilhelm A., Karge L., Ostermann A., Defendi I., Schreyer A., Petry W., Gilles R. The new small-angle neutron scattering instrument SANS-1 at MLZ characterization and first results  
Nuclear Instruments and Methods in Physics Research A **832**, 297-305 (2016)

Oda T., Hino M., Kitaguchi M., Geltenbort P., Kawabata Y. Pulsed neutron time-dependent intensity modulation for quasi-elastic neutron scattering spectroscopy  
Review of Scientific Instruments **87**, 105124-1-105124-5 (2016)

Orlando A., Biasotti M., Ceriale V., De Gerone M., Gatti F., Hays-Wehle J., Pizzigoni G., Schmidt D., Swetz D., Ullom J. Transition-edge sensor arrays of microcalorimeters with  $^{163}\text{Ho}$  for direct neutrino mass measurements with HOLMES  
Journal of Low Temperature Physics **184**, 892-896 (2016)

Parisiades P., Payre C., Gonzales J.P., Laborier J.L., Bidet J.P., Guionneau P., Rosa P., Lelièvre-Berna E., Lemée-Cailleau M.H. Light-irradiation at 700MPa down to 1.5K for neutron diffraction  
Measurement Science and Technology **27**, 047001-1-047001-5 (2016)

Piscitelli F., Khaplanov A., Devishvili A., Schmidt S., Höglund C., Birch J., Dennison A.J.C., Gutfreund P., Hall-Wilton R., Van Esch P. Neutron reflectometry on highly absorbing films and its application to  $^{10}\text{B}_4\text{C}$ -based neutron detectors  
Proceedings of the Royal Society A **472**, 20150711-1-20150711-14 (2016)

Salmon P.S., Zeidler A., Fischer H.E. Optimizing the counting times for sample-in-container scattering experiments  
Journal of Applied Crystallography **49**, 2249-2251 (2016)

Schmalzl K., Schmidt W., Raymond S., Feilbach H., Mounier C., Vettard B., Brückel T. The upgrade of the cold neutron three-axis spectrometer IN12 at the ILL  
Nuclear Instruments and Methods in Physics Research A **819**, 89-98 (2016)

Sule J., Ganguly S., Suder W., Pirling T. Effect of high-pressure rolling followed by laser processing on mechanical properties, microstructure and residual stress distribution in multi-pass welds of 304L stainless steel  
International Journal of Advanced Manufacturing Technology **86**, 2127-2138 (2016)

Trovaslet-Leroy M., Martinez N., Marion J., Peters J. Hautes pressions et dynamique des systèmes biologiques  
In «Mesures en conditions extrêmes» (2016, Editions des Archives Contemporaines) p.51

Wei W., Broussard L.J., Hoffbauer M.A., Makela M., Morris C.L., Tang Z., Adamek E.R., Callahan N.B., Clayton S.M., Cude-Woods C., Currie S., Dees E.B., Ding X., Geltenbort P., Hickerson K.P., Holley A.T., Ito T.M., Leung K.K., Liu C.Y., Morley D.J., Ortiz J.D., Pattie R.W., Ramsey J.C., Saunders A., Seestrom S.J., Sharapov E.I., Sjue S.K., Wexler J., Womack T.L., Young A.R., Zeck B.A., Wang Z. Position-sensitive detection of ultracold neutrons with an imaging camera and its implications to spectroscopy  
Nuclear Instruments and Methods in Physics Research A **830**, 36-43 (2016)

Wood M.H., Browning K.L., Barker R.D., Clarke S.M. Using neutron reflectometry to discern the structure of fibrinogen adsorption at the stainless steel/aqueous interface  
Journal of Physical Chemistry B **120**, 5405-5416 (2016)

Zanatta M., Orecchini A., Aisa S., Casinini F., Farnesini L., Deen P.P., Paciaroni A., Petrillo C., Sacchetti F. A large-area double rotating-crystal monochromator for time-focusing neutron instruments  
Journal of Physics: Conference Series **746**, 012002-1-012002-6 (2016)

Brunelli M., Coduri M., Ceretti M., Paulus W. Local apical oxygen disorder in oxygen rich  $\text{La}_2\text{NiO}_{4.18}$ , comparing neutron single crystal and  $n/\text{X}$ -PDF analysis from powder diffraction data  
Journal of Physics D **48**, 504009-1-504009-8 (2015)

Fernando U.S., Davidson M., Simpson C., Pirling T., Yan K., Callaghan M.D., Roy M., Francis J.A., Withers P.J. Measurement of residual stress shakedown in pressure/tensile armour wires of flexible pipes by neutron diffraction  
ASME Proceedings **5A**, V05AT04A035-1-V05AT04A035-8 (2015)

## PUBLICATIONS

## Biology

Howald L., Stilp E., Dalmás de Réotier P., Yaouanc A., Raymond S., Piamonteze C., Lapertot G., Baines C., Keller H. Evidence for coexistence of bulk superconductivity and itinerant antiferromagnetism in the heavy fermion system  $\text{CeCo}(\text{In}_{1-x}\text{Cd}_x)_5$   
*Scientific Reports* **5**, 12528-1-12528-15 (2015)

Laversenne L., Hansen T.C. Études structurales in situ par diffraction de neutrons  
*Reflète de la Physique* **44-45**, 56-61 (2015)

McCalla E., Abakumov A.M., Saubanère M., Foix D., Berg E.J., Rousse G., Doublet M.L., Gonbeau D., Novák P., Van Tendeloo G., Dominko R., Tarascon J.M. Visualization of O-O peroxo-like dimers in high-capacity layered oxides for Li-ion batteries  
*Science* **350**, 1516-1521 (2015)

Piarristeguy A., Pradel A. Chalcogénures pour le stockage de l'information: mémoires ioniques (CB-RAM) et mémoires à changement de phase (PC-RAM)  
*Materiaux & Techniques* **103**, 402-1-402-12 (2015)

Radulescu A., Székely N.K., Polachowski S., Leyendecker M., Amann M., Buitenhuis J., Drochner M., Engels R., Hanslik R., Kemmerling G., Lindner P., Papagiannopoulos A., Pipich V., Willner L., Frielinghaus H., Richter D. Tuning the instrument resolution using chopper and time of flight at the small-angle neutron scattering diffractometer KWS-2  
*Journal of Applied Crystallography* **48**, 1849-1859 (2015)

Sahling S., Remenyi G., Paulsen C., Monceau P., Saligrama V., Marin C., Revcolevschi A., Regnault L.P., Raymond S., Lorenzo J.E. Experimental realization of long-distance entanglement between spins in antiferromagnetic quantum spin chains  
*Nature Physics* **11**, 255-260 (2015)

Simeoni G.G., Valicu R.G., Borchert G., Böni P., Rasmussen N.G., Yang F., Kordel T., Holland-Moritz D., Kargl F., Meyer A. Focusing adaptive-optics for neutron spectroscopy at extreme conditions  
*Applied Physics Letters* **107**, 243503-1-243503-5 (2015)

Arunmanee W., Pathania M., Solovyova A.S., Le Brun A.P., Ridley H., Baslé A., van den Berg B., Lakey J.H. Gram-negative trimeric porins have specific LPS binding sites that are essential for porin biogenesis  
*Proceedings of the National Academy of Sciences* **113**, E5034-E5043 (2016)

Blakeley M.P. Neutron crystallography aids in drug design  
*IUCr* **3**, 296-297 (2016)

Chiappisi L., Gradzielski M. Chitosan surfactant systems for home and health care products: Limitations and potentials  
*Household and Personal Care Today* **11**, 8-11 (2016)

Cuyper M.G., Mason S.A., Mossou E., Haertlein M., Forsyth V.T., Mitchell E.P. Macromolecular structure phasing by neutron anomalous diffraction  
*Scientific Reports* **6**, 31487-1-31487-7 (2016)

Foglia F., Hazael R., Simeoni G.G., Appavou M., Moulin M.S., Haertlein M., Forsyth V.T., Seydel T., Daniel I., Meersman F., McMillan P.F. Water dynamics in *Shewanella oneidensis* at ambient and high pressure using quasi-elastic neutron scattering  
*Scientific Reports* **6**, 18862-1-18862-9 (2016)

Gerlits O., Wymore T., Das A., Shen C.H., Parks J.M., Smith J.C., Weiss K.L., Keen D.A., Blakeley M.P., Louis J.M., Langan P., Weber I.T., Kovalevsky A. Long-range electrostatics-induced two-proton transfer captured by neutron crystallography in an enzyme catalytic site  
*Angewandte Chemie* **128**, 5008-5011 (2016)

Gerlits O., Wymore T., Das A., Shen C.H., Parks J.M., Smith J.C., Weiss K.L., Keen D.A., Blakeley M.P., Louis J.M., Langan P., Weber I.T., Kovalevsky A. Long-range electrostatics-induced two-proton transfer captured by neutron crystallography in an enzyme catalytic site  
*Angewandte Chemie International Edition* **55**, 4924-4927 (2016)

Haertlein M., Moulin M., Devos J.M., Laux V., Dunne O., Forsyth V.T. Biomolecular deuteration for neutron structural biology and dynamics  
*Methods in Enzymology* **566**, 113-157 (2016)

Haller S., Pellegrini G., Vermeulen C., van der Meulen N.P., Köster U., Bernhardt P., Schibli R., Müller C. Contribution of Auger/conversion electrons to renal side effects after radionuclide therapy: Preclinical comparison of  $^{161}\text{Tb}$ -folate and  $^{177}\text{Lu}$ -folate  
*EJNMMI Research* **6**, 13-1-13-11 (2016)

Howard E.I., Guillot B., Blakeley M.P., Haertlein M., Moulin M., Mitschler A., Cousido-Siah A., Fadel F., Valsecchi W.M., Tomizaki T., Petrova T., Claudot J., Podjarny A. High-resolution neutron and X-ray diffraction room-temperature studies of an H-FABP-oleic acid complex: Study of the internal water cluster and ligand binding by a transferred multipolar electron-density distribution  
*IUCr* **3**, 115-126 (2016)

- Jagalski V., Barker R., Topgaard D., Günther-Pomorski T., Hamberger B., Cárdenas M. Biophysical study of resin acid effects on phospholipid membrane structure and properties  
*Biochimica et Biophysica Acta* **1858**, 2827-2838 (2016)
- Jordan A., Jacques M., Merrick C., Devos J., Forsyth V.T., Porcar L., Martel A. SEC-SANS: Size exclusion chromatography combined *in situ* with small-angle neutron scattering  
*Journal of Applied Crystallography* **49**, 2015-2020 (2016)
- Kim H.S., Martel A., Girard E., Moulin M., Härtlein M., Madern D., Blackledge M., Franzetti B., Gabel F. SAXS/SANS on supercharged proteins reveals residue-specific modifications of the hydration shell  
*Biophysical Journal* **110**, 2185-2194 (2016)
- Korytowski A.A. Influence of lipid oxidization on structures and functions of biological membranes  
PhD Thesis (2016)
- Kwon H., Basran J., Casadei C.M., Fielding A.J., Schrader T.E., Ostermann A., Devos J.M., Aller P., Blakeley M.P., Moody P.C.E., Raven E.L. Direct visualization of a Fe(IV)-OH intermediate in a heme enzyme  
*Nature Communications* **7**, 13445-1-13445-6 (2016)
- Leclerc F., Zaccari G., Vergne J., Řihová M., Martel A., Maurel M.C. Self-assembly controls self-cleavage of HHR from ASBVd (-): A combined SANS and modeling study  
*Scientific Reports* **6**, 30287-1-30287-13 (2016)
- Lee R., Mason S.A., Mossou E., Lamming G., Probert M.R., Steed J.W. Neutron diffraction studies on guest-induced distortions in urea inclusion compounds  
*Crystal Growth & Design* **16**, 7175-7185 (2016)
- Leonardo T., Farhi E., Pouget S., Motellier S., Boisson A.M., Banerjee D., Rébeillé F., Den Auwer C., Rivasseau C. Silver accumulation in the green microalga *Coccomyxa actinobiotis*: Toxicity, *in situ* speciation, and localization investigated using synchrotron XAS, XRD and TEM  
*Environmental Science & Technology* **50**, 359-367 (2016)
- Li R., Pavuluri S., Bruggeman K., Long B.M., Parnell A.J., Martel A., Parnell S.R., Pfeffer F.M., Dennison A.J.C., Nicholas K.R., Barrow C.J., Nisbet D.R., Williams R.J. Coassembled nanostructured bioscaffold reduces the expression of proinflammatory cytokines to induce apoptosis in epithelial cancer cells  
*Nanomedicine: Nanotechnology, Biology and Medicine* **12**, 1397-1407 (2016)
- Manzoni F., Saraboji K., Sprenger J., Kumar R., Noresson A.L., Nilsson U.J., Leffler H., Fisher S.Z., Schrader T.E., Ostermann A., Coates L., Blakeley M.P., Oksanen E., Logan D.T. Perdeuteration, crystallization, data collection and comparison of five neutron diffraction data sets of complexes of human galectin-3C  
*Acta Crystallographica D* **72**, 1194-1202 (2016)
- Margheritis E., Castellani B., Magotti P., Peruzzi S., Romeo E., Natali F., Mostarda S., Gioiello A., Piomelli D., Garau G. Bile acid recognition by NAPE-PLD  
*ACS Chemical Biology* **11**, 2908-2914 (2016)
- Martinez N., Michoud G., Cario A., Ollivier J., Franzetti B., Jebbar M., Oger P., Peters J. High protein flexibility and reduced hydration water dynamics are key pressure adaptive strategies in prokaryotes  
*Scientific Reports* **6**, 32816-1-32816-11 (2016)
- Mojumdar E.H., Gooris G.S., Groen D., Barlow D.J., Lawrence M.J., Demé B., Bouwstra J.A. Stratum corneum lipid matrix: Location of acyl ceramide and cholesterol in the unit cell of the long periodicity phase  
*Biochimica et Biophysica Acta* **1858**, 1926-1934 (2016)
- Mueller J., Oliveira J.S.L., Barker R., Trapp M., Schroeter A., Brezesinski G., Neubert R.H.H. The effect of urea and taurine as hydrophilic penetration enhancers on *stratum corneum* lipid models  
*Biochimica et Biophysica Acta* **1858**, 2006-2018 (2016)
- Müller C., Vermeulen C., Johnston K., Köster U., Schmid R., Türlér A., van der Meulen N.P. Preclinical *in vivo* application of <sup>152</sup>Tb-DOTANOC: A radiolanthanide for PET imaging  
*EJNMMI Research* **6**, 35-1-35-10 (2016)
- Müller C., Vermeulen C., Köster U., Johnston K., Türlér A., Schibli R., van der Meulen N.P. Alpha-PET with terbium-149: Evidence and perspectives for radiotheragnostics  
*EJNMMI Radiopharmacy and Chemistry* **1**, 5-1-5-5 (2016)
- Nawroth T., Johnson R., Krebs L., Khoshakhlagh P., Langguth P., Hellmann N., Goerigk G., Boesecke P., Bravin A., Le Duc G., Székely N., Schweins R. Target nanoparticles for therapy – SANS and DLS of drug carrier liposomes and polymer nanoparticles  
*Journal of Physics: Conference Series* **746**, 012069-1-012069-3 (2016)
- Owen G.R., Channell J.A., Forsyth V.T., Haertlein M., Mitchell E.P., Capovilla A., Papathanasopoulos M., Cerutti N.M. Human CD4 metastability is a function of the allosteric disulfide bond in domain 2  
*Biochemistry* **55**, 2227-2237 (2016)
- Rivasseau C., Farhi E., Compagnon E., de Gouvion Saint Cyr D., van Lis R., Falconet D., Kuntz M., Atteia A., Couté A. *Coccomyxa actinobiotis* sp. nov. (Trebouxiophyceae, Chlorophyta), a new green microalga living in the spent fuel cooling pool of a nuclear reactor  
*Journal of Phycology* **52**, 689-703 (2016)

## PUBLICATIONS

- Roberts J.L., Cattoz B., Schweins R., Beck K., Thomas D.W., Griffiths P.C., Ferguson E.L. In vitro evaluation of the interaction of dextrin-colistin conjugates with bacterial lipopolysaccharide *Journal of Medicinal Chemistry* **59**, 647-654 (2016)
- Rondelli V., Brocca P., Motta S., Messa M., Colombo L., Salmona M., Fragneto G., Cantù L., Del Favero E. Amyloid- $\beta$  peptides in interaction with raft-mimic model membranes: A neutron reflectivity insight *Scientific Reports* **6**, 20997-1-20997-11 (2016)
- Russo D., Plazanet M., Teixeira J., Moulin M., Härtlein M., Wurm F.R., Steinbach T. Investigation into the relaxation dynamics of polymer-protein conjugates reveals surprising role of polymer solvation on inherent protein flexibility *Biomacromolecules* **17**, 141-147 (2016)
- Russo D., Rea G., Lambrea M.D., Härtlein M., Moulin M., De Francesco A., Campi G. Water collective dynamics in whole photosynthetic green algae as affected by protein single mutation *Journal of Physical Chemistry Letters* **7**, 2429-2433 (2016)
- Stadler A.M., Demmel F., Ollivier J., Seydel T. Picosecond to nanosecond dynamics provide a source of conformational entropy for protein folding *Physical Chemistry Chemical Physics* **18**, 21527-21538 (2016)
- Sugiyama M., Yagi H., Ishii K., Porcar L., Martel A., Oyama K., Noda M., Yunoki Y., Murakami R., Inoue R., Sato N., Oba Y., Terauchi K., Uchiyama S., Kato K. Structural characterization of the circadian clock protein complex composed of KaiB and KaiC by inverse contrast-matching small-angle neutron scattering *Scientific Reports* **6**, 35567-1-35567-7 (2016)
- van der Maarel J.R.C., Guttula D., Arluison V., Egelhaaf S.U., Grillo I., Forsyth V.T. Structure of the H-NS-DNA nucleoprotein complex *Soft Matter* **12**, 3636-3642 (2016)
- Wacklin H.P., Bremec B.B., Moulin M., Rojko N., Härtlein M., Forsyth T., Anderluh G., Norton R.S. Neutron reflection study of the interaction of the eukaryotic pore-forming actinoporin equinatoxin II with lipid membranes reveals intermediate states in pore formation *Biochimica et Biophysica Acta (BBA) – Biomembranes* **1858**, 640-652 (2016)
- Yabukarski F., Leyrat C., Martinez N., Communie G., Ivanov I., Ribeiro E.A., Buisson M., Gerard F.C., Bourhis J.M., Jensen M.R., Bernadó P., Blackledge M., Jamin M. Ensemble structure of the highly flexible complex formed between vesicular stomatitis virus unassembled nucleoprotein and its phosphoprotein chaperone *Journal of Molecular Biology* **428**, 2671-2694 (2016)
- Yee A.W., Moulin M., Breteau N., Härtlein M., Mitchell E.P., Cooper J.B., Boeri Erba E., Forsyth V.T. Impact of deuteration on the assembly kinetics of transthyretin monitored by native mass spectrometry and implications for amyloidoses *Angewandte Chemie International Edition* **55**, 9292-9296 (2016)
- Zaccai G., Bagyan I., Combet J., Cuello G.J., Demé B., Fichou Y., Gallat F.X., Galván Josa V.M., von Gronau S., Härtlein M., Martel A., Moulin M., Neumann M., Weik M., Oesterhelt D. Neutrons describe ectoine effects on water H-bonding and hydration around a soluble protein and a cell membrane *Scientific Reports* **6**, 31434-1-31434-12 (2016)
- Zimmer O., Jouve H.M., Stuhmann H.B. Polarized proton spin density images the tyrosyl radical locations in bovine liver catalase *IUCr* **3**, 326-340 (2016)
- Berger O., Adler-Abramovich L., Levy-Sakin M., Grunwald A., Liebes-Peer Y., Bachar M., Buzhansky L., Mossou E., Forsyth V.T., Schwartz T., Ebenstein Y., Frolov F., Shimon L.J.W., Patolsky F., Gazit E. Light-emitting self-assembled peptide nucleic acids exhibit both stacking interactions and Watson-Crick base pairing *Nature Nanotechnology* **10**, 353-360 (2015)
- Lenton S., Seydel T., Nylander T., Holt C., Härtlein M., Teixeira S., Zaccai G. Dynamic footprint of sequestration in the molecular fluctuations of osteopontin *Journal of the Royal Society Interface* **12**, 20150506-1-20150506-12 (2015)
- Lind T.K., Wacklin H., Schiller J., Moulin M., Härtlein M., Pomorski T.G., Cárdenas M. Formation and characterization of supported lipid bilayers composed of hydrogenated and deuterated *Escherichia coli* lipids *PLoS One* **10**, e0144671-1-e0144671-16 (2015)
- Raasakka A., Myllykoski M., Laulumaa S., Lehtimäki M., Härtlein M., Moulin M., Kursula I., Kursula P. Determinants of ligand binding and catalytic activity in the myelin enzyme 2',3'-cyclic nucleotide 3'-phosphodiesterase *Scientific Reports* **5**, 16520-1-16520-15 (2015)
- Schiro G., Fichou Y., Gallat F.X., Wood K., Gabel F., Moulin M., Härtlein M., Heyden M., Colletier J.P., Orecchini A., Paciaroni A., Wuttke J., Tobias D.J., Weik M. Translational diffusion of hydration water correlates with functional motions in folded and intrinsically disordered proteins *Nature Communications* **6**, 6490-1-6490-8 (2015)

## Crystallography and Chemistry

- Black A.P., Johnston H.E., Oró-Solé J., Bozzo B., Ritter C., Frontera C., Attfield J.P., Fuertes A. Nitride tuning of lanthanide chromites  
*Chemical Communications* **52**, 4317-4320 (2016)
- Boivin E., Chotard J.N., Ménétrier M., Bourgeois L., Bamine T., Carlier D., Fauth F., Suard E., Masquelier C., Croguennec L. Structural and electrochemical studies of a new Tavorite composition:  $\text{LiVPO}_4\text{OH}$   
*Journal of Materials Chemistry A* **4**, 11030-11045 (2016)
- Bordet P., Bytchkov A., Descamps M., Dudognon E., Elkäim E., Martinetto P., Pagnoux W., Poulain A., Willart J.F. Solid state amorphization of  $\beta$ -trehalose: A structural investigation using synchrotron powder diffraction and PDF analysis  
*Crystal Growth & Design* **16**, 4547-4558 (2016)
- Cascos V., Alonso J.A., Fernández-Díaz M.T.  $\text{Nb}^{5+}$ -doped  $\text{SrCoO}_{3.5}$  perovskites as potential cathodes for solid-oxide fuel cells  
*Materials* **9**, 579-1-579-12 (2016)
- Cascos V., Alonso J.A., Fernández-Díaz M.T. Novel Mg-doped  $\text{SrMoO}_3$  perovskites designed as anode materials for solid oxide fuel cells  
*Materials* **9**, 588-1-588-14 (2016)
- Catti M., Pinus I., Ruffo R., Salamone M.M., Mari C.M. A novel layered lithium niobium titanate as battery anode material: Crystal structure and charge-discharge properties  
*Solid State Ionics* **295**, 72-77 (2016)
- Colin C.V., Ito M., Yano M., Dempsey N.M., Suard E., Givord D. Solid-solution stability and preferential site-occupancy in  $(\text{R}'\text{R}')_2\text{Fe}_{14}\text{B}$  compounds  
*Applied Physics Letters* **108**, 242415-1-242415-4 (2016)
- Cumby J., Bayliss R.D., Berry F.J., Greaves C. Synthetic analogues of Fe(II)-Fe(III) minerals containing a pentagonal 'Cairo' magnetic lattice  
*Dalton Transactions* **45**, 11801-11806 (2016)
- de Pedro I., Fabelo O., García-Saiz A., Vallcorba O., Junquera J., Blanco J.A., Waerenborgh J.C., Andreica D., Wildes A., Fernández-Díaz M.T., Rodríguez Fernández J. Dynamically slow solid-to-solid phase transition induced by thermal treatment of  $\text{DimimFeCl}_4$  magnetic ionic liquid  
*Physical Chemistry Chemical Physics* **18**, 21881-21892 (2016)
- Falcón H., Tartaj P., Vaquero F., Navarro R.M., Fierro J.L.G., Bolletta J.P., de Paoli J.M., Carbonio R.E., Fernández-Díaz M.T., Alonso J.A. Straightforward high-pressure synthesis and characterization of indium-based thiospinels: Photocatalytic potential for hydrogen production  
*European Journal of Inorganic Chemistry* **2016**, 1558-1565 (2016)
- Fantiñ A., Scherb T., Seeger J., Schumacher G., Gerhards U., Ivanova M.E., Meulenberg W.A., Dittmeyer R., Banhart J. Crystal structure of Re-substituted lanthanum tungstate  $\text{La}_{5.4}\text{W}_{1-y}\text{Re}_y\text{O}_{12.5}$  ( $0 \leq y \leq 0.2$ ) studied by neutron diffraction  
*Journal of Applied Crystallography* **49**, 1544-1560 (2016)
- Galván V., Limandri S., Gargicevich D., Bonifacich F.G., Lambri O.A., Blanco C., Zelada G.I., Cano J.A., Pairetti L.E., Chiappero P.J., Cuello G.J. Estudio de las fases en Fe-Al-Ge mediante difracción de electrones retrodispersados y neutrones  
*Acta Microscopica* **25**, 113-114 (2016)
- Galven C., Mounier D., Bouchevreau B., Suard E., Bulou A., Crosnier-Lopez M.P., Le Berre F. Phase transitions in the Ruddlesden-Popper phase  $\text{Li}_2\text{CaTa}_2\text{O}_7$ : X-ray and neutron powder thermodiffraction, TEM, Raman, and SHG experiments  
*Inorganic Chemistry* **55**, 2309-2323 (2016)
- Gatta G.D., Bosi F., Fernández-Díaz M.T., Hålenius U. H-bonding scheme in allactite: A combined single-crystal X-ray and neutron diffraction, optical absorption spectroscopy, FTIR and EPMA-WDS study  
*Mineralogical Magazine* **80**, 719-732 (2016)
- Gharsallah M., Serrano-Sánchez F., Nemes N.M., Monpeán F.J., Martínez J.L., Fernández-Díaz M.T., Elhalouani F., Alonso J.A. Giant Seebeck effect in Ge-doped SnSe  
*Scientific Reports* **6**, 26774-1-26774-9 (2016)
- Gómez-Pérez A., Ritter C., Boulahya K., Muñoz-Noval A., García-Alvarado F., Amador U. A-site order in rhombohedral perovskite-like oxides  $\text{La}_{2-x}\text{Sr}_x\text{CoTiO}_6$  ( $0.6 \leq x \leq 1.0$ )  
*Journal of Applied Crystallography* **49**, 31-39 (2016)
- Gong Y., Sun C., Huang Q.A., Alonso J.A., Fernández-Díaz M.T., Chen L. Dynamic octahedral breathing in oxygen-deficient  $\text{Ba}_{0.9}\text{Co}_{0.7}\text{Fe}_{0.2}\text{Nb}_{0.1}\text{O}_{3.5}$  perovskite performing as a cathode in intermediate-temperature SOFC  
*Inorganic Chemistry* **55**, 3091-3097 (2016)
- González-Jiménez I.N., Climent E., Torres-Pardo A., Hernando M., Sánchez-Peláez A.E., Fernández-Martínez F., Fernández-Díaz M.T., González-Calbet J.M., de Andrés A., Varela A., Parras M.  $\text{SrMnO}_3$  thermochromic behavior governed by size-dependent structural distortions  
*Inorganic Chemistry* **55**, 3980-3991 (2016)
- Hansen T.C., Falenty A., Kuhs W.F. Lattice constants and expansivities of gas hydrates from 10 K up to the stability limit  
*Journal of Chemical Physics* **144**, 054301-1-054301-11 (2016)

## PUBLICATIONS

- Jarry A., Joubert O., Suard E., Zanotti J., Quarez E. Location of deuterium sites at operating temperature from neutron diffraction of  $\text{Ba}_{0.6}\text{Ti}_{0.2}\text{Yb}_{0.2}\text{O}_{2.6-n}(\text{OH})_{2n}$ , an electrolyte for proton-solid oxide fuel cells  
*Physical Chemistry Chemical Physics* **18**, 15751-15759 (2016)
- Kohagen M., Mason P.E., Jungwirth P. Accounting for electronic polarization effects in aqueous sodium chloride via molecular dynamics aided by neutron scattering  
*Journal of Physical Chemistry B* **120**, 1454-1460 (2016)
- Kohlmann H., Hein C., Kautenburger R., Hansen T.C., Ritter C., Doyle S. Crystal structure of monoclinic samarium and cubic europium sesquioxides and bound coherent neutron scattering lengths of the isotopes  $^{154}\text{Sm}$  and  $^{153}\text{Eu}$   
*Zeitschrift für Kristallographie* **231**, 517-523 (2016)
- Kohlmann H., Vasseur M., Sayede A., Lefevre G., Sander J.M., Doyle S. Crystal structure and hydrogenation properties of  $\text{Pd}_3\text{As}$   
*Journal of Alloys and Compounds* **664**, 256-265 (2016)
- Krause C. Structure and dynamics of discotic liquid crystals in the bulk and in the confined state  
PhD Thesis (2016)
- Liu S., Avdeev M., Liu Y., Johnson M.R., Ling C.D. A new  $n = 4$  layered Ruddlesden-Popper phase  $\text{K}_{2.5}\text{Bi}_{2.5}\text{Ti}_4\text{O}_{13}$  showing stoichiometric hydration  
*Inorganic Chemistry* **55**, 1403-1411 (2016)
- Magrasó A., Frontera C. Comparison of the local and the average crystal structure of proton conducting lanthanum tungstate and the influence of molybdenum substitution  
*Dalton Transactions* **45**, 3791-3797 (2016)
- Mather G.C., Heras-Juaristi G., Ritter C., Fuentes R.O., Chinelatto A.L., Pérez-Coll D., Amador U. Phase transitions, chemical expansion, and deuterium sites in the  $\text{BaZr}_{0.7}\text{Ce}_{0.2}\text{Y}_{0.1}\text{O}_{3.6}$  proton conductor  
*Chemistry of Materials* **28**, 4292-4299 (2016)
- Mitsari E., Romanini M., Qureshi N., Tamarit J.L., Barrio M., Macovez R.  $\text{C}_{60}$  solvate with (1,1,2)-trichloroethane: Dynamic statistical disorder and mixed conformation  
*Journal of Physical Chemistry C* **120**, 12831-12839 (2016)
- Monchak M., Hupfer T., Senyshyn A., Boysen H., Chernyshov D., Hansen T., Schell K.G., Bucharsky E.C., Hoffmann M.J., Ehrenberg H. Lithium diffusion pathway in  $\text{Li}_{1.3}\text{Al}_{0.3}\text{Ti}_{1.7}(\text{PO}_4)_3$  (LATP) superionic conductor  
*Inorganic Chemistry* **55**, 2941-2945 (2016)
- Murphy G.L., Kennedy B.J., Kimpton J.A., Gu Q., Johannessen B., Beridze G., Kowalski P.M., Bosbach D., Avdeev M., Zhang Z. Nonstoichiometry in strontium uranium oxide: Understanding the rhombohedral-orthorhombic transition in  $\text{SrUO}_4$   
*Inorganic Chemistry* **55**, 9329-9334 (2016)
- Orea A., Larraz G., Rodríguez-Velamazán J.A., Campo J., Sanjuán M.L. Influence of  $\text{Li}^+$  and  $\text{H}^+$  distribution on the crystal structure of  $\text{Li}_{7x}\text{H}_x\text{La}_3\text{Zr}_2\text{O}_{12}$  ( $0 \leq x \leq 5$ ) garnets  
*Inorganic Chemistry* **55**, 1324-1332 (2016)
- Paria Sena R., Babaryk A.A., Khainakov S., Garcia-Granda S., Slobodyanik N.S., Van Tendeloo G., Abakumov A.M., Hadermann J. A pseudo-tetragonal tungsten bronze superstructure: A combined solution of the crystal structure of  $\text{K}_{6.4}(\text{Nb,Ta})_{36.3}\text{O}_{94}$  with advanced transmission electron microscopy and neutron diffraction  
*Dalton Transactions* **45**, 973-979 (2016)
- Rettenwander D., Redhammer G., Preishuber-Pflügl F., Cheng L., Miara L., Wagner R., Welzl A., Suard E., Doeff M.M., Wilkening M., Fleig J., Amthauer G. Structural and electrochemical consequences of Al and Ga cosubstitution in  $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$  solid electrolytes  
*Chemistry of Materials* **28**, 2384-2392 (2016)
- Scherb T., Kimber S.A.J., Stephan C., Henry P.F., Schumacher G., Escolástico S., Serra J.M., Seeger J., Just J., Hill A.H., Banhart J. Nanoscale order in the frustrated mixed conductor  $\text{La}_{5.6}\text{WO}_{12.6}$   
*Journal of Applied Crystallography* **49**, 997-1008 (2016)
- Serebrov A.P., Fomin A.K., Kharitonov A.G., Varlamov V.E., Kolomenskiy E.A., Krasnoshchekova I.A., Chechkin A.V. Neutron lifetime measurement on setups with gravitational trap  
*Crystallography Reports* **61**, 139-143 (2016)
- Sovago I., Thomas L.H., Adam M.S., Capelli S.C., Wilson C.C., Farrugia L.J. High resolution X-ray and neutron diffraction studies on molecular complexes of chloranilic acid and lutidines  
*CrysEngComm* **18**, 5697-5709 (2016)
- Steciuk G., Boullay P., Pautrat A., Barrier N., Caignaert V., Palatinus L. Unusual relaxor ferroelectric behavior in stairlike Aurivillius phases  
*Inorganic Chemistry* **55**, 8881-8891 (2016)
- Szary P., Kaiser D., Bick J.P., Lott D., Heinemann A., Dewhurst C., Birringer R., Michels A. Magnetic field-dependent spin structures of nanocrystalline holmium  
*Journal of Applied Crystallography* **49**, 533-538 (2016)
- Tang W.S., Dimitrievska M., Chotard J.N., Zhou W., Janot R., Skripov A.V., Udovic T.J. Structural and dynamical trends in alkali-metal silanides characterized by neutron-scattering methods  
*Journal of Physical Chemistry C* **120**, 21218-21227 (2016)

- Thomas L.H., Jones A.O.F., Kallay A.A., McIntyre G.J., Wilson C.C. Engineering short, strong, charge-assisted hydrogen bonds in benzoic acid dimers through cocrystallization with proton sponge *Crystal Growth & Design* **16**, 2112-2122 (2016)
- Troncoso L., Gardey M.C., Fernández-Díaz M.T., Alonso J.A. New rhenium-doped  $\text{SrCo}_{1-x}\text{Re}_x\text{O}_{3-\delta}$  perovskites performing as cathodes in solid oxide fuel cells *Materials* **9**, 717-717-14 (2016)
- Urcelay-Olabarria I., García-Muñoz J.L., Ressouche E., Mukhin A.A., Skumryev V. Comparative study of the field-induced and spontaneous AF2' multiferroic phases in  $\text{MnWO}_4$  and  $\text{Mn}_{0.90}\text{Co}_{0.10}\text{WO}_4$  within the magnetic symmetry framework *Journal of Applied Crystallography* **49**, 520-527 (2016)
- Vu T.D., Krichen F., Barré M., Busselez R., Adil K., Jouanneaux A., Suard E., Goutenoire F. Crystal structure and ion conducting properties of  $\text{La}_3\text{NbMo}_2\text{O}_{16}$  *Journal of Solid State Chemistry* **237**, 411-416 (2016)
- Wade C., Barrière N., Hanlon L., Bastie P., Fitzpatrick G., Jentschel M., Roudil G., von Ballmoos P. Laue diffraction behaviour in silver mosaic crystals at several gamma-ray energies and orientations *Journal of Applied Crystallography* **49**, 606-615 (2016)
- Ye J., Barrio M., Céolin R., Qureshi N., Rietveld I.B., Tamarit J.L. Van-der-Waals based solvates of  $\text{C}_{60}$  with  $\text{CBr}_2\text{Cl}_2$  and  $\text{CBr}_2(\text{CH}_3)_2$  *Chemical Physics* **477**, 39-45 (2016)
- Zhao L., Fernández-Díaz M.T., Tjeng L.H., Komarek A.C. Oxyhalides: A new class of high-TC multiferroic materials *Science Advances* **2**, e1600353-1-e1600353-5 (2016)
- Zhou J.S., Cao L.P., Alonso J.A., Sánchez-Benítez J., Fernández-Díaz M.T., Li X., Cheng J.G., Marshall L.G., Jin C.Q., Goodenough J.B. Possible Bose-Einstein condensate associated with an orbital degree of freedom in the Mott insulator  $\text{CaCrO}_3$  *Physical Review B* **94**, 155137-1-155137-5 (2016)
- Bianchini M., Fauth F., Suard E., Leriche J.B., Masquelier C., Croguennec L. Spinel materials for Li-ion batteries: New insights obtained by *operando* neutron and synchrotron X-ray diffraction *Acta Crystallographica B* **71**, 688-701 (2015)
- de Pedro I., García-Saiz A., Andreica D., Fernández Barquín L., Fernández-Díaz M.T., Blanco J.A., Amato A., Rodríguez Fernández J. Low temperature magnetic ordering of the magnetic ionic plastic crystal, choline $[\text{FeCl}_4]$  *Journal of Physics: Conference Series* **663**, 012012-1-012012-5 (2015)
- Gargicevich D., Galván Josa V.M., Blanco C., Lambri O.A., Cuello G.J. Structure determination of Fe-Al-Ge alloys *Journal of Physics: Conference Series* **663**, 012004-1-012004-5 (2015)
- Gargicevich D., Lambri O.A., Pérez-Landazábal J.I., Recarte V., Bonifacich F.G., Cuello G.J., Sánchez Alarcos V. Mobility of dislocations and grain boundaries controlled by the order degree in iron-based alloys *Journal of Physics: Conference Series* **663**, 012013-1-012013-6 (2015)
- Zamiri F., Drezet J.M., Nussbaumer A. Welding simulation of tubular K-joints in steel S690QH *In «Tubular Structures XV» Ed. (2015, CRC Press) pp. 481-488*

---

## Liquids and Glasses

---

- Amann-Winkel K., Bellissent-Funel M.C., Bove L.E., Loerting T., Nilsson A., Paciaroni A., Schlesinger D., Skinner L. X-ray and neutron scattering of water *Chemical Reviews* **116**, 7570-7589 (2016)
- Arbe A., Moreno A.J., Allgaier J., Ivanova O., Fouquet P., Colmenero J., Richter D. Role of dynamic asymmetry on the collective dynamics of comblike polymers: Insights from neutron spin-echo experiments and coarse-grained molecular dynamics simulations *Macromolecules* **49**, 4989-5000 (2016)
- Beauvois K., Campbell C.E., Dawidowski J., Fåk B., Godfrin H., Krotscheck E., Lauter H.J., Lichtenegger T., Ollivier J., Sultan A. Superfluid  $^4\text{He}$  dynamics beyond quasiparticle excitations *Physical Review B* **94**, 024504-1-024504-5 (2016)
- Bellissima S., De Panfilis S., Bafile U., Cunsolo A., González M.A., Guarini E., Formisano F. The hydrogen-bond collective dynamics in liquid methanol *Scientific Reports* **6**, 39533-1-39533-10 (2016)
- Berg M.C., Jacobsen J., Momsen N.C.R., Benetti A.R., Telling M.T.F., Seydel T., Bordallo H.N. Water dynamics in glass ionomer cements *European Physical Journal Special Topics* **225**, 773-777 (2016)
- Boettcher I., Holzmann M. Quasi-long-range order in trapped two-dimensional Bose gases *Physical Review A* **94**, 011602-1-011602-5 (2016)
- Borodin O., Price D.L., Aoun B., González M.A., Hooper J.B., Kofu M., Kohara S., Yamamuro O., Saboungi M.L. Effect of water on the structure of a prototype ionic liquid *Physical Chemistry – Chemical Physics* **18**, 23474-23481 (2016)

## PUBLICATIONS

- Bouzid A., Pizzey K.J., Zeidler A., Ori G., Boero M., Massobrio C., Klotz S., Fischer H.E., Bull C.L., Salmon P.S. Pressure-induced structural changes in the network-forming isostatic glass  $\text{GeSe}_4$ : An investigation by neutron diffraction and first-principles molecular dynamics  
*Physical Review B* **93**, 014202-1-014202-13 (2016)
- Christensen S., Schmøkel M.S., Borup K.A., Madsen G.K.H., McIntyre G.J., Capelli S.C., Christensen M., Iversen B.B. "Glass-like" thermal conductivity gradually induced in thermoelectric  $\text{Sr}_8\text{Ga}_{16}\text{Ge}_{30}$  clathrate by off-centered guest atoms  
*Journal of Applied Physics* **119**, 185102-1-185102-11 (2016)
- Dawidowski J., Rodríguez Palomino L.A., Márquez Damián J.I., Blostein J.J., Cuello G.J. Effective temperatures and scattering cross sections in water mixtures determined by Deep Inelastic Neutron Scattering  
*Annals of Nuclear Energy* **90**, 247-255 (2016)
- De Francesco A., Guarini E., Bafile U., Formisano F., Scaccia L. Bayesian approach to the analysis of neutron Brillouin scattering data on liquid metals  
*Physical Review E* **94**, 023305-1-023305-14 (2016)
- Demmel F., Hennet L., Brassamin S., Neuville D.R., Kozaily J., Koza M.M. Nickel self-diffusion in a liquid and undercooled NiSi alloy  
*Physical Review B* **94**, 014206-1-014206-6 (2016)
- Fathi S., Gonzalez M.A., Bahri M., Nasr S. Structural investigations of liquid formamide by X-ray scattering, *ab-initio* calculations and molecular dynamics simulations  
*Journal of Molecular Liquids* **219**, 21-31 (2016)
- Guarini E., Neumann M., Bafile U., Celli M., Colognesi D., Bellissima S., Farhi E., Calzavara Y. Velocity autocorrelation by quantum simulations for direct parameter-free computations of the neutron cross sections. II. Liquid deuterium  
*Physical Review B* **93**, 224302-1-224302-8 (2016)
- Gutfreund P., Maccarini M., Dennison A.J.C., Wolff M. The search for nanobubbles by using specular and off-specular neutron reflectometry  
*Langmuir* **32**, 9091-9096 (2016)
- Hennet L., Drewitt J.W.E., Neuville D.R., Cristiglio V., Kozaily J., Brassamin S., Zanghi D., Fischer H.E. Neutron diffraction of calcium aluminosilicate glasses and melts  
*Journal of Non-Crystalline Solids* **451**, 89-93 (2016)
- Liu M., Jacob A., Schmetterer C., Masset P.J., Hennet L., Fischer H.E., Kozaily J., Jahn S., Gray-Weale A. From atomic structure to excess entropy: A neutron diffraction and density functional theory study of  $\text{CaO-Al}_2\text{O}_3\text{-SiO}_2$  melts  
*Journal of Physics: Condensed Matter* **28**, 135102-1-135102-17 (2016)
- Mhanna R., Lefort R., Noirez L., Morineau D. Microstructure and concentration fluctuations in alcohol-Toluene and alcohol-Cyclohexane binary liquids: A small angle neutron scattering study  
*Journal of Molecular Liquids* **218**, 198-207 (2016)
- Peters J., Martinez N., Trovaslet M., Scannapieco K., Koza M.M., Masson P., Nachon F. Dynamics of human acetylcholinesterase bound to non-covalent and covalent inhibitors shedding light on changes to the water network structure  
*Physical Chemistry Chemical Physics* **18**, 12992-13001 (2016)
- Pirez C., Fang W., Capron M., Paul S., Jobic H., Dumeignil F., Jalowiecki-Duhamel L. Steam reforming, partial oxidation and oxidative steam reforming for hydrogen production from ethanol over cerium nickel based oxyhydride catalyst  
*Applied Catalysis A: General* **518**, 78-86 (2016)
- Plazanet M., Torre R., Sacchetti F. Confinement, entropic effects and hydrogen bond network fluctuations of water in Nafion membrane  
*Journal of Molecular Liquids* **219**, 1161-1164 (2016)
- Ranieri U., Giura P., Gorelli F.A., Santoro M., Klotz S., Gillet P., Paolasini L., Koza M.M., Bove L.E. Dynamical crossover in hot dense water: The hydrogen bond role  
*Journal of Physical Chemistry B* **120**, 9051-9059 (2016)
- Rodríguez Palomino L.A., Cuello G.J., Stunault A., Dawidowski J. Structure factor determination of deuterated 1- and 2-propanol using diffraction experiments with polarization analysis  
*Philosophical Magazine* **96**, 816-827 (2016)
- Salmon P.S., Drewitt J.W.E., Zeidler A. Neutron diffraction as a probe of liquid and glass structures under extreme conditions  
*Neutron News* **27**, 22-26 (2016)
- Stunault A., Vial S., Pusztai L., Cuello G.J., Temleitner L. Structure of hydrogenous liquids: Separation of coherent and incoherent cross sections using polarised neutrons  
*Journal of Physics: Conference Series* **711**, 012003-1-12003-5 (2016)
- Tucker I.M., Petkov J.T., Penfold J., Thomas R.K., Cox A.R., Hedges N. Adsorption of hydrophobin/ $\beta$ -casein mixtures at the solid-liquid interface  
*Journal of Colloid and Interface Science* **478**, 81-87 (2016)
- Wax J.F., Bryk T., Johnson M.R. Efficient analytical expressions for dynamic structure of liquid binary alloys: K-Cs as a case study  
*Journal of Physics: Condensed Matter* **28**, 185102-1-185102-11 (2016)
- Wong K., Chen C., Koza M.M., Chathoth S.M. Influence of packing density and viscosity on the growth of dynamic heterogeneity while cooling metallic melts  
*Applied Physics Letters* **109**, 051903-1-051903-4 (2016)

Zeidler A., Salmon P.S., Piarristeguy A., Pradel A., Fischer H.E. Structure of glassy Ag-Ge-Se by neutron diffraction with isotope substitution  
*Zeitschrift für Physikalische Chemie* **230**, 417-432 (2016)

Arévalo-López A.M., Dos Santos-García A.J., Levin J.R., Attfield J.P., Alario-Franco M.A. Spin-glass behavior and incommensurate modulation in high-pressure perovskite  $\text{BiCr}_{0.5}\text{Ni}_{0.5}\text{O}_3$   
*Inorganic Chemistry* **54**, 832-836 (2015)

Berlie A., Terry I., Szablewski M., Giblin S.R. Separating the ferromagnetic and glassy behavior within the metal-organic magnet  $\text{Ni}(\text{TCNQ})_2$   
*Physical Review B* **92**, 184431-1-184431-15 (2015)

Guigue M., Jullien D., Petukhov A.K., Pignol G. Constraining short-range spin-dependent forces with polarized  $^3\text{He}$   
*Physical Review D* **92**, 114001-1-114001-11 (2015)

---

## Magnetic Excitations

---

Babkevich P., Katukuri V.M., Fåk B., Rols S., Fennell T., Pajic D., Tanaka H., Pardini T., Singh R.R.P., Mitrushchenkov A., Yazyev O.V., Rønnow H.M. Magnetic excitations and electronic interactions in  $\text{Sr}_2\text{CuTeO}_6$ : A spin-1/2 square lattice Heisenberg antiferromagnet  
*Physical Review Letters* **117**, 237203-1-237203-6 (2016)

Baker M.L., Lancaster T., Chiesa A., Amoretti G., Baker P.J., Barker C., Blundell S.J., Carretta S., Collison D., Güdel H.U., Guidi T., McInnes E.J.L., Möller J.S., Mutka H., Ollivier J., Pratt F.L., Santini P., Tuna F., Tregenna-Piggott P.L.W., Vitorica-Yrezabal I.J., Timco G.A., Winpenny R.E.P. Studies of a large odd-numbered odd-electron metal ring: Inelastic neutron scattering and muon spin relaxation spectroscopy of  $\text{Cr}_8\text{Mn}$   
*Chemistry – A European Journal* **22**, 1779-1788 (2016)

Blanchard P.E.R., Chapman K.W., Heald S.M., Zbiri M., Johnson M.R., Kennedy B.J., Ling C.D. Direct observation of pressure-driven valence electron transfer in  $\text{Ba}_3\text{BiRu}_2\text{O}_9$ ,  $\text{Ba}_3\text{BiIr}_2\text{O}_9$ , and  $\text{Ba}_4\text{BiIr}_3\text{O}_{12}$   
*Inorganic Chemistry* **55**, 5649-5654 (2016)

Blanco-Gutiérrez V., Climent-Pascual E., Saéz-Puche R., Torralvo-Fernández M.J. Temperature dependence of superparamagnetism in  $\text{CoFe}_2\text{O}_4$  nanoparticles and  $\text{CoFe}_2\text{O}_4/\text{SiO}_2$  nanocomposites  
*Physical Chemistry Chemical Physics* **18**, 9186-9193 (2016)

Chan M.K., Dorow C.J., Mangin-Thro L., Tang Y., Ge Y., Veit M.J., Yu G., Zhao X., Christianson A.D., Park J.T., Sidis Y., Steffens P., Abernathy D.L., Bourges P., Grevin M. Commensurate antiferromagnetic excitations as a signature of the pseudogap in the tetragonal high- $T_c$  cuprate  $\text{HgBa}_2\text{CuO}_{4+\delta}$   
*Nature Communications* **7**, 10819-1-10819-7 (2016)

Clemens O., Rohrer J., Néner G. Magnetic structures of the low temperature phase of  $\text{Mn}_3(\text{VO}_4)_2$  towards understanding magnetic ordering between adjacent Kagomé layers  
*Dalton Transactions* **45**, 156-171 (2016)

Diop L.V.B., Isnard O., Rodríguez-Carvajal J. Ultrasharp magnetization steps in the antiferromagnetic itinerant-electron system  $\text{LaFe}_{12}\text{B}_6$   
*Physical Review B* **93**, 014440-1-014440-6 (2016)

Feng X., Liu J.L., Pedersen K.S., Nehrkorn J., Schnegg A., Hollmack K., Bendix J., Sigrist M., Mutka H., Samohvalov D., Aguilà D., Tong M.L., Long J.R., Clérac R. Multifaceted magnetization dynamics in the mononuclear complex  $[\text{Re}^{\text{IV}}\text{Cl}_4(\text{CN})_2]^{2-}$   
*Chemical Communications* **52**, 12905-12908 (2016)

Grigoriev P.D., Sinchenko A.A., Lejay P., Hadj-Azzem A., Balay J., Leynaud O., Zverev V.N., Monceau P. Bilayer splitting versus Fermi-surface warping as an origin of slow oscillations of in-plane magnetoresistance in rare-earth tritellurides  
*European Physical Journal B* **89**, 151-1-151-10 (2016)

Hallas A.M., Gaudet J., Wilson M.N., Munsie T.J., Aczel A.A., Stone M.B., Freitas R.S., Arevalo-Lopez A.M., Attfield J.P., Tachibana M., Wiebe C.R., Luke G.M., Gaulin B.D. XY antiferromagnetic ground state in the effective  $S = \frac{1}{2}$  pyrochlore  $\text{Yb}_2\text{Ge}_2\text{O}_7$   
*Physical Review B* **93**, 104405-1-104405-9 (2016)

Holbein S., Ackermann M., Chapon L., Steffens P., Gukasov A., Sazonov A., Breunig O., Sanders Y., Becker P., Bohatý L., Lorenz T., Braden M. Strong magnetoelastic coupling at the transition from harmonic to anharmonic order in  $\text{NaFe}(\text{WO}_4)_2$  with  $3d_5$  configuration  
*Physical Review B* **94**, 104423-1-104423-14 (2016)

Kadlec F., Kadlec C., Vít J., Borodavka F., Kempa M., Prokleška J., Buršík J., Uhrecký R., Rols S., Chai Y.S., Zhai K., Sun Y., Dražhokoupil J., Goian V., Kamba S. Electromagnon in the Z-type hexaferrite  $(\text{Ba}_x\text{Sr}_{1-x})_3\text{Co}_2\text{Fe}_{24}\text{O}_{41}$   
*Physical Review B* **94**, 024419-1-024419-8 (2016)

Koitzsch A., Heming N., Knupfer M., Büchner B., Portnichenko P.Y., Dukhnenko A.V., Shitsevalova N.Y., Filipov V.B., Lev L.L., Strocov V.N., Ollivier J., Inosov D.S. Nesting-driven multipolar order in  $\text{CeB}_6$  from photoemission tomography  
*Nature Communications* **7**, 10876-1-10876-7 (2016)

## PUBLICATIONS

- Li Z.W., Drees Y., Ricci A., Lamago D., Piovano A., Rotter M., Schmidt W., Sobolev O., Rütt U., Gutowski O., Sprung M., Castellán J.P., Tjeng L.H., Komarek A.C. Electronic and magnetic nano phase separation in cobaltates  $\text{La}_{2x}\text{Sr}_x\text{CoO}_4$   
Journal of Superconductivity and Novel Magnetism **29**, 727-731 (2016)
- Li Z.W., Drees Y., Kuo C.Y., Guo H., Ricci A., Lamago D., Sobolev O., Rütt U., Gutowski O., Pi T.W., Piovano A., Schmidt W., Mogare K., Hu Z., Tjeng L.H., Komarek A.C. Incommensurate spin correlations in highly oxidized cobaltates  $\text{La}_{2x}\text{Sr}_x\text{CoO}_4$   
Scientific Reports **6**, 25117-1-25117-8 (2016)
- Ling C.D., Huang Z., Kennedy B.J., Rols S., Johnson M.R., Zbiri M., Kimber S.A.J., Hudspeth J., Adroja D.T., Rule K.C., Avdeev M., Blanchard P.E.R. Experimental observation and computational study of the spin-gap excitation in  $\text{Ba}_3\text{BiRu}_2\text{O}_9$   
Physical Review B **94**, 174401-1-174401-8 (2016)
- Nemkovski K.S., Kozlenko D.P., Alekseev P.A., Mignot J.M., Menushenkov A.P., Yaroslavtsev A.A., Clementyev E.S., Ivanov A.S., Rols S., Klobes B., Hermann R.P., Griбанov A.V. Europium mixed-valence, long-range magnetic order, and dynamic magnetic response in  $\text{EuCu}_2(\text{Si}_x\text{Ge}_{1-x})_2$   
Physical Review B **94**, 195101-1-195101-11 (2016)
- Petit S., Lhotel E., Guitteny S., Florea O., Robert J., Bonville P., Mirebeau I., Ollivier J., Mutka H., Ressouche E., Decorse C., Hatnean M.C., Balakrishnan G. Antiferroquadrupolar correlations in the quantum spin ice candidate  $\text{Pr}_2\text{Zr}_2\text{O}_7$   
Physical Review B **94**, 165153-1-165153-16 (2016)
- Portnichenko P.Y., Demishev S.V., Semeno A.V., Ohta H., Cameron A.S., Surmach M.A., Jang H., Friemel G., Dukhnenko A.V., Shitsevalova N.Y., Filipov V.B., Schneidewind A., Ollivier J., Podlesnyak A., Inosov D.S. Magnetic field dependence of the neutron spin resonance in  $\text{CeB}_6$   
Physical Review B **94**, 035114-1-035114-6 (2016)
- Schmidiger D., Povarov K.Y., Galeski S., Reynolds N., Bewley R., Guidi T., Ollivier J., Zheludev A. Emergent interacting spin islands in a depleted strong-leg Heisenberg ladder  
Physical Review Letters **116**, 257203-1-257203-6 (2016)
- Sibille R., Lhotel E., Hatnean M.C., Balakrishnan G., Fåk B., Gauthier N., Fennell T., Kenzelmann M. Candidate quantum spin ice in the pyrochlore  $\text{Pr}_2\text{Hf}_2\text{O}_7$   
Physical Review B **94**, 024436-1-024436-7 (2016)
- Stock C., Rodriguez E.E., Lee N., Green M.A., Demmel F., Ewings R.A., Fouquet P., Laver M., Niedermayer C., Su Y., Nemkovski K., Rodriguez-Rivera J.A., Cheong S.W. Solitary magnons in the  $S = \frac{5}{2}$  antiferromagnet  $\text{CaFe}_2\text{O}_4$   
Physical Review Letters **117**, 017201-1-017201-6 (2016)
- Takatsu H., Onoda S., Kittaka S., Kasahara A., Kono Y., Sakakibara T., Kato Y., Fåk B., Ollivier J., Lynn J.W., Taniguchi T., Wakita M., Kadowaki H. Quadrupole order in the frustrated pyrochlore  $\text{Tb}_{2+x}\text{Ti}_{2x}\text{O}_{7+y}$   
Physical Review Letters **116**, 217201-1-217201-6 (2016)
- Wang Q., Park J.T., Feng Y., Shen Y., Hao Y., Pan B., Lynn J.W., Ivanov A., Chi S., Matsuda M., Cao H., Birgeneau R.J., Efremov D.V., Zhao J. Transition from sign-reversed to sign-preserved cooper-pairing symmetry in sulfur-doped iron selenide superconductors  
Physical Review Letters **116**, 197004-1-197004-5 (2016)
- Woodruff D.N., Schild F., Topping C.V., Cassidy S.J., Blandy J.N., Blundell S.J., Thompson A.L., Clarke S.J. The parent  $\text{Li}(\text{OH})\text{FeSe}$  phase of lithium iron hydroxide selenide superconductors  
Inorganic Chemistry **55**, 9886-9891 (2016)
- Geselbracht P., Faulhaber E., Rotter M., Schmalzl K., Quintero-Castro D., Stockert O., Loewenhaupt M., Schneidewind A. Low-energy magnetic excitations of  $\text{CeCu}_2\text{Ge}_2$  investigated by inelastic neutron scattering  
Physics Procedia **75**, 83-90 (2015)
- Halg M., Huvonen D., Guidi T., Quintero-Castro D.L., Boehm M., Regnault L.P., Hagiwara M., Zheludev A. Finite-temperature scaling of spin correlations in an experimental realization of the one-dimensional Ising quantum critical point  
Physical Review B **92**, 014412-1-014412-7 (2015)
- Kadowaki H., Takatsu H., Taniguchi T., Fåk B., Ollivier J. Composite spin and quadrupole wave in the ordered phase of  $\text{Tb}_{2+x}\text{Ti}_{2x}\text{O}_{7+y}$   
SPIN **05**, 1540003-1-1540003-8 (2015)
- Kunkemoller S., Khomskii D., Steffens P., Piovano A., Nugroho A.A., Braden M. Highly anisotropic magnon dispersion in  $\text{Ca}_2\text{RuO}_4$ : Evidence for strong spin orbit coupling  
Physical Review Letters **115**, 247201-1-247201-5 (2015)
- Povarov K.Y., Wulf E., Huvonen D., Ollivier J., Paduan-Filho A., Zheludev A. Dynamics of a bond-disordered  $S = 1$  quantum magnet near  $z = 1$  criticality  
Physical Review B **92**, 024429-1-024429-10 (2015)
- Raymond S., Lapertot G. Ising incommensurate spin resonance of  $\text{CeCoIn}_5$ : A dynamical precursor of the Q-phase  
Physical Review Letters **115**, 037001-1-037001-5 (2015)
- Wang Q., Shen Y., Pan B., Hao Y., Ma M., Zhou F., Steffens P., Schmalzl K., Forrest T.R., Abdel-Hafiez M., Chen X., Chareev D.A., Vasiliev A.N., Bourges P., Sidis Y., Cao H., Zhao J. Strong interplay between stripe spin fluctuations, nematicity and superconductivity in  $\text{FeSe}$   
Nature Materials **15**, 159-163 (2015)

## Magnetic Structures

- Alonso-Domínguez D., Álvarez-Serrano I., López M.L., Cuello G.J., Asensio E., García-Hernández M., Veiga M.L., Pico C. Characterization of  $\text{SrBiMn}_{2-x}\text{Ti}_x\text{O}_6$  perovskites: Local ordering influence on the dielectric and magnetic response *Ceramics International* **42**, 11889-11900 (2016)
- Babkevich P., Jeong M., Matsumoto Y., Kovacevic I., Finco A., Toft-Petersen R., Ritter C., Månsson M., Nakatsuji S., Rønnow H.M. Dimensional reduction in quantum dipolar antiferromagnets *Physical Review Letters* **116**, 197202-1-197202-5 (2016)
- Balz C., Lake B., Reuther J., Luetkens H., Schönemann R., Herrmannsdörfer T., Singh Y., Islam A.T.M.N., Wheeler E.M., Rodríguez-Rivera J.A., Guidi T., Simeoni G.G., Baines C., Ryll H. Physical realization of a quantum spin liquid based on a complex frustration mechanism *Nature Physics* **12**, 942-949 (2016)
- Bannenberg L.J., Kakurai K., Qian F., Lelièvre-Berna E., Dewhurst C.D., Onose Y., Endoh Y., Tokura Y., Pappas C. Extended skyrmion lattice scattering and long-time memory in the chiral magnet  $\text{Fe}_{1-x}\text{Co}_x\text{Si}$  *Physical Review B* **94**, 104406-1-104406-6 (2016)
- Bhattacharyya A., Ritter C., Adroja D.T., Coomer F.C., Strydom A.M. Exploring the complex magnetic phase diagram of  $\text{Ce}_2\text{PdGe}_3$ : A neutron powder diffraction and  $\mu\text{SR}$  study *Physical Review B* **94**, 014418-1-014418-7 (2016)
- Blasco J., García J., Subías G., Stankiewicz J., Rodríguez-Velamazán J.A., Ritter C., García-Muñoz J.L., Fauth F. Magnetoelectric and structural properties of  $\text{Y}_2\text{CoMnO}_6$ : The role of antisite defects *Physical Review B* **93**, 214401-1-214401-12 (2016)
- Çakır Ö., Acet M., Farle M., Wildes A. Magnetic correlations in the magnetocaloric materials  $\text{Mn}_3\text{GaC}$  and  $\text{Mn}_3\text{GaC}_{0.85}\text{N}_{0.15}$  studied by neutron polarization analysis and neutron depolarization *Journal of Physics: Condensed Matter* **28**, 13LT02-1-13LT02-4 (2016)
- Cedervall J., Andersson M.S., Sarkar T., Delczeg-Czirjak E.K., Bergqvist L., Hansen T.C., Beran P., Nordblad P., Sahlberg M. Magnetic structure of the magnetocaloric compound  $\text{AlFe}_2\text{B}_2$  *Journal of Alloys and Compounds* **664**, 784-791 (2016)
- Cedervall J., Kontos S., Hansen T.C., Balmes O., Martínez-Casado F.J., Matej Z., Beran P., Svedlindh P., Gunnarsson K., Sahlberg M. Magnetostructural transition in  $\text{Fe}_3\text{SiB}_2$  observed with neutron diffraction *Journal of Solid State Chemistry* **235**, 113-118 (2016)
- Darie C., Lepoittevin C., Klein H., Kodjikian S., Bordet P., Colin C.V., Lebedev O.I., Deudon C., Payen C. A new high pressure form of  $\text{Ba}_3\text{NiSb}_2\text{O}_9$  *Journal of Solid State Chemistry* **237**, 166-173 (2016)
- Ding L., Colin C.V., Darie C., Robert J., Gay F., Bordet P. One-dimensional short-range magnetic correlations in the magnetoelectric pyroxene  $\text{CaMnGe}_2\text{O}_6$  *Physical Review B* **93**, 064423-1-064423-6 (2016)
- Diop I.V.B., Isnard O., Suard E., Benea D. Neutron diffraction study of the itinerant-electron metamagnetic  $\text{Hf}_{0.825}\text{Ta}_{0.175}\text{Fe}_2$  compound *Solid State Communications* **229**, 16-21 (2016)
- Eichenberger L., Malaman B., Mazet T. Unusual Yb magnetic properties in  $\text{YbMn}_6\text{Ge}_{1.8-x}\text{Sn}_{4.2}\text{Ga}_x$  and  $\text{YbMn}_6\text{Ge}_{1.8}\text{Sn}_{4.2-y}\text{Ga}_y$  *Journal of Magnetism and Magnetic Materials* **405**, 48-53 (2016)
- Frandsen B.A., Brunelli M., Page K., Uemura Y.J., Staunton J.B., Billinge S.J.L. Verification of Anderson superexchange in  $\text{MnO}$  via magnetic pair distribution function analysis and *ab initio* theory *Physical Review Letters* **116**, 197204-1-197204-5 (2016)
- Fuster V., Blanco M.C., Franco D.G., Tirao G., Nassif V.M., Nieva G., Carbonio R.E. Synthesis of new double perovskites  $\text{La}_{1.98}\text{Mn}_{1.11}\text{Mo}_{0.89}\text{O}_{5.93}$  and  $\text{La}_{1.92}\text{Mn}_{1.29}\text{Mo}_{0.71}\text{O}_{5.84}$ : Characterization of structural and magnetic properties *Journal of Alloys and Compounds* **681**, 444-454 (2016)
- García-Muñoz J.L., Padilla-Pantoja J., Torrelles X., Blasco J., Herrero-Martín J., Bozzo B., Rodríguez-Velamazán J.A. Magnetostructural coupling, magnetic ordering, and cobalt spin reorientation in metallic  $\text{Pr}_{0.5}\text{Sr}_{0.5}\text{CoO}_3$  cobalite *Physical Review B* **94**, 014411-1-014411-9 (2016)
- Gebresenbut G.H. Quasicrystal approximants in the RE-Au-SM systems (RE = Gd, Tb, Ho, Yb; SM = Si, Ge) – Syntheses, structures and properties *PhD Thesis* (2016)
- Granata V., Capogna L., Forte F., Lepetit M.B., Fittipaldi R., Stunault A., Cuoco M., Vecchione A. Spin-orbital nature of the high-field magnetic state in the  $\text{Sr}_4\text{Ru}_3\text{O}_{10}$  *Physical Review B* **93**, 115128-1-115128-9 (2016)
- Guo H., Ritter C., Komarek A.C. Direct determination of the spin structure of  $\text{Nd}_2\text{Ir}_2\text{O}_7$  by means of neutron diffraction *Physical Review B* **94**, 161102-1-161102-5 (2016)
- Henrichs L.F., Cespedes O., Bennett J., Landers J., Salamon S., Heuser C., Hansen T., Helbig T., Gutfleisch O., Lupascu D.C., Wende H., Kleemann W., Bell A.J. Multiferroic clusters: A new perspective for relaxor-type room-temperature multiferroics *Advanced Functional Materials* **26**, 2111-2121 (2016)
- Herlitschke M., Disch S., Sergueev I., Schlage K., Wetterskog E., Bergström L., Hermann R.P. Spin disorder in maghemite nanoparticles investigated using polarized neutrons and nuclear resonant scattering *Journal of Physics: Conference Series* **711**, 012002-1-012002-11 (2016)

## PUBLICATIONS

- Hneda M.L., da Cunha J.B.M., Gusmão M.A.C., Isnard O. Low dimensional magnetism in  $\text{MnNb}_{2-x}\text{V}_x\text{O}_6$  *Materials Research Bulletin* **74**, 169-176 (2016)
- Jobic H. Observation of single-file diffusion in a MOF *Physical Chemistry Chemical Physics* **18**, 17190-17195 (2016)
- Johnson R.D., Khalyavin D.D., Manuel P., Bombardi A., Martin C., Chapon L.C., Radaelli P.G. Modulated spin helicity stabilized by incommensurate orbital density waves in a quadruple perovskite manganite *Physical Review B* **93**, 180403-1-180403-5 (2016)
- Jørgensen J.E., Hansen T.C. Magnetic-crystallographic *p,T*-phase diagram of  $\text{Fe}_{1.141}\text{Te}$ : A high-pressure neutron diffraction study *Physica Status Solidi (b)* **253**, 2257-2264 (2016)
- Kawaguchi S., Ishibashi H., Nishihara S., Mori S., Campo J., Porcher F., Fabelo O., Sugimoto K., Kim J., Kato K., Takata M., Nakao H., Kubota Y. Orthorhombic distortion and orbital order in the vanadium spinel  $\text{FeV}_2\text{O}_4$  *Physical Review B* **93**, 024108-1-024108-9 (2016)
- Knafo W., Duc F., Bourdarot F., Kuwahara K., Nojiri H., Aoki D., Billette J., Frings P., Tonon X., Lelièvre-Berna E., Flouquet J., Regnault L.P. Field-induced spin-density wave beyond hidden order in  $\text{URu}_2\text{Si}_2$  *Nature Communications* **7**, 13075-1-13075-7 (2016)
- Kuerbanjiang B., Nedelkoski Z., Kepaptsoglou D., Ghasemi A., Glover S.E., Yamada S., Saerbeck T., Ramasse Q.M., Hasnip P.J., Hase T.P.A., Bell G.R., Hamaya K., Hirohata A., Lazarov V.K. The role of chemical structure on the magnetic and electronic properties of  $\text{Co}_2\text{FeAl}_{0.5}\text{Si}_{0.5}/\text{Si}(111)$  interface *Applied Physics Letters* **108**, 172412-1-172412-5 (2016)
- Lançon D., Walker H.C., Ressouche E., Ouladdiaf B., Rule K.C., McIntyre G.J., Hicks T.J., Rønnow H.M., Wildes A.R. Magnetic structure and magnon dynamics of the quasi-two-dimensional antiferromagnet  $\text{FePS}_3$  *Physical Review B* **94**, 214407-1-214407-11 (2016)
- Lefrançois E., Pradipto A.M., Moretti Sala M., Chapon L.C., Simonet V., Picozzi S., Lejay P., Petit S., Ballou R. Anisotropic interactions opposing magnetocrystalline anisotropy in  $\text{Sr}_3\text{NiIrO}_6$  *Physical Review B* **93**, 224401-1-224401-5 (2016)
- Martinelli A., Ferretti M., Ritter C. Phase separation, orbital ordering and magnetism in  $(\text{La}_{0.375}\text{Ca}_{0.625})\text{MnO}_3$  *Journal of Solid State Chemistry* **239**, 99-105 (2016)
- Miao X.F., Caron L., Cedervall J., Gubbens P.C.M., Dalmas de Réotier P., Yaouanc A., Qian F., Wildes A.R., Luetkens H., Amato A., van Dijk N.H., Brück E. Short-range magnetic correlations and spin dynamics in the paramagnetic regime of  $(\text{Mn,Fe})_2(\text{P,Si})$  *Physical Review B* **94**, 014426-1-014426-9 (2016)
- Michels A., Mettus D., Honecker D., Metlov K.I. Effect of Dzyaloshinski-Moriya interaction on elastic small-angle neutron scattering *Physical Review B* **94**, 054424-1-054424-10 (2016)
- Morozkin A.V., Isnard O., Nirmala R., Quezado S., Malik S.K. Magnetic ordering of  $\text{YPd}_2\text{Si}$ -type  $\text{HoNi}_2\text{Si}$  and  $\text{ErNi}_2\text{Si}$  compounds *Journal of Magnetism and Magnetic Materials* **419**, 368-374 (2016)
- Morozkin A.V., Yapaskurt V.O., Nirmala R., Malik S.K., Quezado S., Yao J., Mozharivskiy Y., Nigam A.K., Isnard O. Magnetic order of  $\text{Y}_3\text{NiSi}_3$ -type  $\text{R}_3\text{NiSi}_3$  ( $\text{R} = \text{Gd-DY}$ ) compounds *Journal of Magnetism and Magnetic Materials* **398**, 141-147 (2016)
- Murakami T., Yamamoto T., Tassel C., Takatsu H., Ritter C., Ajiro Y., Kageyama H.  $\text{HfMnSb}_2$ : A metal-ordered NiAs-type pnictide with a conical spin order *Angewandte Chemie* **128**, 10031-10034 (2016)
- Nair H.S., Chatterji T., Kumar C.M.N., Hansen T.C., Nhalil H., Elizabeth S., Strydom A.M. Magnetic structures and magnetic phase transitions in the Mn-doped orthoferrite  $\text{TbFeO}_3$  studied by neutron powder diffraction *Journal of Applied Physics* **119**, 053901-1-053901-7 (2016)
- Nandi S., Xiao Y., Qureshi N., Paramanik U.B., Jin W.T., Su Y., Ouladdiaf B., Hossain Z., Brückel T. Magnetic structures of the Eu and Cr moments in  $\text{EuCr}_2\text{As}_2$ : Neutron diffraction study *Physical Review B* **94**, 094411-1-094411-7 (2016)
- Orayech B., Ortega-San-Martín L., Urcelay-Olabarria I., Lezama L., Rojo T., Arriortua M.I., Igartua J.M. The effect of partial substitution of Ni by Mg on the structural, magnetic and spectroscopic properties of the double perovskite  $\text{Sr}_2\text{NiTeO}_6$  *Dalton Transactions* **45**, 14378-14393 (2016)
- Pankrats A.I., Demidov A.A., Ritter C., Velikanov D.A., Semenov S.V., Tugarinov V.I., Temerov V.L., Gudim I.A. Transformation from an easy-plane to an easy-axis antiferromagnetic structure in the mixed rare-earth ferrobates  $\text{Pr}_x\text{Y}_{1-x}\text{Fe}_3(\text{BO}_3)_4$ : Magnetic properties and crystal field calculations *Journal of Physics: Condensed Matter* **28**, 396001-1-396001-18 (2016)

- Perigo E.A., Titov I., Weber R., Honecker D., Gilbert E.P., De Campos M.F., Michels A. Small-angle neutron scattering study of coercivity enhancement in grain-boundary-diffused Nd-Fe-B sintered magnets  
*Journal of Alloys and Compounds* **677**, 139-142 (2016)
- Petit S., Lhotel E., Canals B., Ciomaga Hatnean M., Ollivier J., Mutka H., Ressouche E., Wildes A.R., Lees M.R., Balakrishnan G. Observation of magnetic fragmentation in spin ice  
*Nature Physics* **12**, 746-750 (2016)
- Pospíšil J., Opletal P., Vališka M., Tokunaga Y., Stunault A., Haga Y., Tateiwa N., Gillon B., Honda F., Yamamura T., Nižňanský V., Yamamoto E., Aoki D. Properties and collapse of the ferromagnetism in  $\text{UCo}_{1-x}\text{Ru}_x\text{Al}$  studied in single crystals  
*Journal of the Physical Society of Japan* **85**, 034710-1-034710-10 (2016)
- Pramana S.S., Baikie T., An T., Tucker M.G., Wu J., Schreyer M.K., Wei F., Bayliss R.D., Kloc C.L., White T.J., Horsfield A.P., Skinner S.J. Correlation of local structure and diffusion pathways in the modulated anisotropic oxide ion conductor  $\text{CeNbO}_{4.25}$   
*Journal of the American Chemical Society* **138**, 1273-1279 (2016)
- Qureshi N., Ressouche E., Mukhin A.A., Ivanov V.Y., Barilo S.N., Shiryayev S.V., Skumryev V. Magnetic field-temperature phase diagrams of multiferroic  $(\text{Ni}_{0.9}\text{Co}_{0.1})_3\text{V}_2\text{O}_8$   
*Physical Review B* **94**, 174441-1-174441-10 (2016)
- Ramírez J.G., de la Venta J., Wang S., Saerbeck T., Basaran A.C., Batlle X., Schuller I.K. Collective mode splitting in hybrid heterostructures  
*Physical Review B* **93**, 214113-1-214113-5 (2016)
- Rayaprol S., Kaushik S.D., Kumar N., Singh K., Guillou F., Simon C. Neutron diffraction, specific heat and magnetization studies on  $\text{Nd}_2\text{CuTiO}_6$   
*AIP Conference Proceedings* **1731**, 130004-1-130004-3 (2016)
- Rinaldi-Montes N., Gorria P., Martínez-Blanco D., Fuertes A.B., Fernández Barquín L., Puente-Orench I., Blanco J.A. Bridging exchange bias effect in NiO and Ni(core)@NiO(shell) nanoparticles  
*Journal of Magnetism and Magnetic Materials* **400**, 236-241 (2016)
- Ritter C. Zigzag type magnetic structure of the spin  $J_{\text{eff}} = 1/2$  compound  $\alpha\text{-RuCl}_3$  as determined by neutron powder diffraction  
*Journal of Physics: Conference Series* **746**, 012060-1-012060-6 (2016)
- Ritter C., Ivanov S.A., Bazuev G.V., Fauth F. Crystallographic phase coexistence, spin-orbital order transitions, and spontaneous spin flip in  $\text{TmVO}_3$   
*Physical Review B* **93**, 054423-1-054423-11 (2016)
- Rousse G., Rodríguez-Carvajal J. Oxalate-mediated long-range antiferromagnetism order in  $\text{Fe}_2(\text{C}_2\text{O}_4)_3 \cdot 4\text{H}_2\text{O}$   
*Dalton Transactions* **45**, 14311-14319 (2016)
- Saad H.E.M.M., Rammeh N. Crystal structure, electronic and magnetic properties of double perovskite  $\text{Ba}_2\text{FeWO}_6$ : A combined experimental-theoretical study  
*Physica B* **481**, 217-223 (2016)
- Saha R., Ghara S., Suard E., Jang D.H., Kim K.H., Ter-Oganessian N.V., Sundaresan A. Magnetolectric effect in simple collinear antiferromagnetic spinels  
*Physical Review B* **94**, 014428-1-014428-7 (2016)
- Salter E.J.T., Blandy J.N., Clarke S.J. Crystal and magnetic structures of the oxide sulfides  $\text{CaCoSO}$  and  $\text{BaCoSO}$   
*Inorganic Chemistry* **55**, 1697-1701 (2016)
- Schobinger-Papamantellos P., Rodríguez-Carvajal J., Buschow K.H.J. Cycloid spirals and cycloid cone transition in the  $\text{HoMn}_{\delta-x}\text{Cr}_x\text{Ge}_6$  ( $T, x$ ) magnetic phase diagram by neutron diffraction  
*Journal of Magnetism and Magnetic Materials* **408**, 233-243 (2016)
- Serrador L., Hernando M., Martínez J.L., González-Calbet J.M., Varela A., García-García F.J., Parras M. Chlorine insertion promoting iron reduction in Ba-Fe hexagonal perovskites: effect on the structural and magnetic properties  
*Inorganic Chemistry* **55**, 6261-6270 (2016)
- Sikolenko V., Troyanchuk I.O., Bushinsky M.V., Karpinsky D.V., Efimov V., Ritter C., Schorr S., Silibin M.V., Dronov A.A., Nekludov K.N., Gavrilov S.A., Schilling F.R. High pressure effects on the magnetic and crystal structure of  $\text{La}_{0.75}\text{Ba}_{0.25}\text{CoO}_3$   
*Materials Chemistry and Physics* **181**, 78-81 (2016)
- Sikolenko V.V., Efimov V.V., Efimova E.A., Tiutiunnikov S.I., Selutin A.G., Karpinsky D.V., Keller L., Ritter C., Nazarenko M.A., Troyanchuk I.O. Neutron-diffraction studies of the antiferromagnetic-ferromagnetic transition in anion-deficient cobaltites  
*Journal of Surface Investigation. X-ray, Synchrotron and Neutron Techniques* **10**, 1133-1135 (2016)
- Singh S., D'Souza S.W., Nayak J., Caron L., Suard E., Chadov S., Felser C. Effect of platinum substitution on the structural and magnetic properties of  $\text{Ni}_2\text{MnGa}$  ferromagnetic shape memory alloy  
*Physical Review B* **93**, 134102-1-134102-11 (2016)
- Singh S., D'Souza S.W., Nayak J., Suard E., Chapon L., Senyshyn A., Petricek V., Skourski Y., Nicklas M., Felser C., Chadov S. Room-temperature tetragonal non-collinear Heusler antiferromagnet  $\text{Pt}_2\text{MnGa}$   
*Nature Communications* **7**, 12671-1-12671-6 (2016)

## PUBLICATIONS

- Siruguri V., Kaushik S.D., Rayaprol S., Babu P.D., Chaddah P., Sampathkumaran E.V., Hoser A., Ritter C. Interrupted magnetic first order transitions and kinetic arrest probed with in-field neutron diffraction  
Journal of Physics: Conference Series **746**, 012063-1-012063-8 (2016)
- Supelano G.I., Parra Vargas C.A., Barón-González A.J., Sarmiento Santos A., Frontera C. Structural study of  $\text{CaMn}_{1-x}\text{Mo}_x\text{O}_3$  ( $0.08 \leq x \leq 0.12$ ) system by neutron powder diffraction  
Journal of Alloys and Compounds **676**, 575-581 (2016)
- Takeiri F., Matsumoto Y., Yamamoto T., Hayashi N., Li Z., Tohyama T., Tassel C., Ritter C., Narumi Y., Hagiwara M., Kageyama H. High-pressure synthesis of the layered iron oxyselenide  $\text{BaFe}_2\text{Se}_2\text{O}$  with strong magnetic anisotropy  
Physical Review B **94**, 184426-1-184426-6 (2016)
- Urban C., Quesada A., Saerbeck T., García M.A., de la Rubia M.A., Valmianski I., Fernández J.F., Schuller I.K. Two state coercivity driven by phase coexistence in vanadium sesquioxide/nickel bulk hybrid material  
Applied Physics Letters **109**, 112401-1-112401-4 (2016)
- Wallace W.A. Quantum entanglement in manganese(III) hexakisimidazole nitrate: On electronic structure imaging – A polarized neutron diffraction and DFT study  
Journal of Physics: Conference Series **711**, 012006-1-012006-15 (2016)
- Wang Z., Qureshi N., Yasin S., Mukhin A., Ressouche E., Zherlitsyn S., Skourski Y., Geshev J., Ivanov V., Gospodinov M., Skumryev V. Magnetolectric effect and phase transitions in  $\text{CuO}$  in external magnetic fields  
Nature Communications **7**, 10295-1-10295-8 (2016)
- Willenberg B., Schapers M., Wolter A.U.B., Drechsler S.L., Reehuis M., Hoffmann J.U., Büchner B., Studer A.J., Rule K.C., Ouladdiaf B., Süllow S., Nishimoto S. Complex field-induced states in linarite  $\text{PbCuSO}_4(\text{OH})_2$  with a variety of high-order exotic spin-density wave states  
Physical Review Letters **116**, 047202-1-047202-5 (2016)
- Yazdi M.B., Major M., Wildes A., Wilhelm F., Rogalev A., Donner W., Alff L. Possible evidence for a spin-state crossover in the Verwey state in  $\text{Fe}_3\text{O}_4$  thin films  
Physical Review B **93**, 014439-1-014439-5 (2016)
- Abdul-Jabbar G., Sokolov D.A., O'Neill C.D., Stock C., Wermeille D., Demmel F., Krüger F., Green A.G., Lévy-Bertrand F., Grenier B., Huxley A.D. Modulated magnetism in  $\text{PrPtAl}$   
Nature Physics **11**, 321-327 (2015)
- Al-Zein A., Bouvier P., Kania A., Levelut C., Hehlen B., Nassif V., Hansen T.C., Fertey P., Haines J., Rouquette J. High pressure single crystal X-ray and neutron powder diffraction study of the ferroelectric-paraelectric phase transition in  $\text{PbTiO}_3$   
Journal of Physics D: Applied Physics **48**, 504008-1-504008-9 (2015)
- Arévalo-López A.M., McNally G.M., Attfield J.P. Large magnetization and frustration switching of magnetoresistance in the double-perovskite ferrimagnet  $\text{Mn}_2\text{FeReO}_6$   
Angewandte Chemie International Edition **54**, 12074-12077 (2015)
- Bender P., Günther A., Honecker D., Wiedenmann A., Disch S., Tschope A., Michels A., Birringer R. Excitation of Ni nanorod colloids in oscillating magnetic fields: A new approach for nanosensing investigated by TISANE  
Nanoscale **7**, 17122-17130 (2015)
- Friemel G., Jang H., Schneidewind A., Ivanov A., Dukhnenko A.V., Shitsevalova N.Y., Filipov V.B., Keimer B., Inosov D.S. Magnetic field and doping dependence of low-energy spin fluctuations in the antiferroquadrupolar compound  $\text{Ce}_{1-x}\text{La}_x\text{B}_6$   
Physical Review B **92**, 014410-1-014410-7 (2015)
- Lhotel E., Petit S., Guitteny S., Florea O., Hatnean M.C., Colin C., Ressouche E., Lees M.R., Balakrishnan G. Fluctuations and all-in-all-out ordering in dipole-octupole  $\text{Nd}_2\text{Zr}_2\text{O}_7$   
Physical Review Letters **115**, 197202-1-197202-5 (2015)
- Rodríguez-Velamazán J.A., Fabelo O., Millán A., Campo J., Johnson R.D., Chapon L. Magnetically-induced ferroelectricity in the  $(\text{ND}_4)_2[\text{FeCl}_3(\text{D}_2\text{O})]$  molecular compound  
Scientific Reports **5**, 14475-1-14475-13 (2015)
- Wildes A.R., Simonet V., Ressouche E., McIntyre G.J., Avdeev M., Suard E., Kimber S.A.J., Lançon D., Pepe G., Moubaraki B., Hicks T.J. Magnetic structure of the quasi-two-dimensional antiferromagnet  $\text{NiPS}_3$   
Physical Review B **92**, 224408-1-224408-11 (2015)

## Materials Science and Engineering

- Aba-Perea P.E., Pirling T., Preuss M. In-situ residual stress analysis during annealing treatments using neutron diffraction in combination with a novel furnace design  
*Materials and Design* **110**, 925-931 (2016)
- Bardel D., Nelias D., Robin V., Pirling T., Boulnat X., Perez M. Residual stresses induced by electron beam welding in a 6061 aluminium alloy  
*Journal of Materials Processing Technology* **235**, 1-12 (2016)
- Barthem V.M.T.S., Colin C.V., Haettel R., Dufeu D., Givord D. Easy moment direction and antiferromagnetic domain wall motion in  $Mn_2Au$   
*Journal of Magnetism and Magnetic Materials* **406**, 289-292 (2016)
- Behrendt G., Reichert C., Kohlmann H. Hydrogenation reaction pathways in the systems  $Li_3N-H_2$ ,  $Li_3N-Mg-H_2$ , and  $Li_3N-MgH_2-H_2$  by in situ X-ray diffraction, in situ neutron diffraction, and in situ thermal analysis  
*Journal of Physical Chemistry C* **120**, 13450-13455 (2016)
- Bourgès C., Gilmas M., Lemoine P., Mordvinova N.E., Lebedev O.I., Hug E., Nassif V., Malaman B., Daou R., Guilmeau E. Structural analysis and thermoelectric properties of mechanically alloyed colusites  
*Journal of Materials Chemistry C* **4**, 7455-7463 (2016)
- Casas-Cabanas M., Kim C., Rodríguez-Carvajal J., Cabana J. Atomic defects during ordering transitions in  $LiNi_{0.5}Mn_{1.5}O_4$  and their relationship with electrochemical properties  
*Journal of Materials Chemistry A* **4**, 8255-8262 (2016)
- Chakravarty S., Shukla N., Devishvili A., Vorobiev A., Amarendra G. Simultaneous measurement of volume and grain boundary diffusivity separately in Fe thin film with stable nanostructure using polarized neutron reflectivity  
*Materials Research Express* **3**, 085001-1-085001-8 (2016)
- Coules H.E., Smith D.J., Orrock P.J., Venkata K.A., Pirling T. A combined experimental and modelling approach to elastic-plastic crack driving force calculation in the presence of residual stresses  
*Experimental Mechanics* **56**, 1313-1325 (2016)
- Dahlborg U., Cornide J., Calvo-Dahlborg M., Hansen T.C., Fitch A., Leong Z., Chambrelaud S., Goodall R. Structure of some CoCrFeNi and CoCrFeNiPd multicomponent HEA alloys by diffraction techniques  
*Journal of Alloys and Compounds* **681**, 330-341 (2016)
- Desgranges L., Baldinozzi G., Simeone D., Fischer H.E. Structural changes in the local environment of uranium atoms in the three phases of  $U_4O_9$   
*Inorganic Chemistry* **55**, 7485-7491 (2016)
- Ding L., Colin C.V., Darie C., Bordet P.  $SrMGe_2O_6$  ( $M = Mn, Co$ ): A family of pyroxene compounds displaying multiferroicity  
*Journal of Materials Chemistry C* **4**, 4236-4245 (2016)
- Elmesalamy A.S., Abdolvand H., Walsh J.N., Francis J.A., Suder W., Williams S., Li L. Measurement and modelling of the residual stresses in autogenous and narrow gap laser welded AISI grade 316L stainless steel plates  
*International Journal of Pressure Vessels and Piping* **147**, 64-78 (2016)
- Foadian F., Carradó A., Pirling T., Palkowski H. Residual stresses evolution in Cu tubes, cold drawn with tilted dies – Neutron diffraction measurements and finite element simulation  
*Materials and Design* **107**, 163-170 (2016)
- Ganguly S., Sule J., Yakubu M.Y. Stress engineering of multi-pass welds of structural steel to enhance structural integrity  
*Journal of Materials Engineering and Performance* **25**, 3238-3244 (2016)
- Hai X., Mayer C., Colin C.V., Miraglia S. In-situ neutron investigation of hydrogen absorption kinetics in  $La(Fe_xSi_{1-x})_{13}$  magnetocaloric alloys for room-temperature refrigeration application  
*Journal of Magnetism and Magnetic Materials* **400**, 344-348 (2016)
- Haigh R.D., Hutchings M.T., Fitzpatrick M.E., James J.A., Okido S., Mizuno R., Ogawa K., Hughes D.J. Residual stress characterization of single and triple-pass autogenously welded stainless steel pipes  
*International Journal of Pressure Vessels and Piping* **144**, 1-10 (2016)
- Hawelek L., Włodarczyk P., Hudecki A., Lis M., Zackiewicz P., Jurkiewicz K., Szade J., Kubacki J., Balin K., Fischer H.E., Kolano-Burian A., Burian A. The atomic scale structure of glass-like carbon obtained from fullerene extract via spark plasma sintering  
*Carbon* **110**, 172-179 (2016)
- Hilger I., Bergner F., Ulbricht A., Wagner A., Weißgärber T., Kieback B., Heintze C., Dewhurst C.D. Investigation of spark plasma sintered oxide-dispersion strengthened steels by means of small-angle neutron scattering  
*Journal of Alloys and Compounds* **685**, 927-935 (2016)
- Jiménez-Villacorta F., Puente-Orench I., Rodríguez-Carvajal J., Lewis L.H. Short-range structural and magnetic order in rapidly-solidified AgMn alloys  
*Materials and Design* **112**, 124-130 (2016)
- Kolokathis P.D., Káli G., Jobic H., Theodorou D.N. Diffusion of aromatics in silicalite-1: Experimental and theoretical evidence of entropic barriers  
*Journal of Physical Chemistry C* **120**, 21410-21426 (2016)
- Krasnov I., Seydel T., Greving I., Blankenburg M., Vollrath F., Müller M. Strain-dependent fractional molecular diffusion in humid spider silk fibres  
*Journal of the Royal Society Interface* **13**, 20160506-1-20160506-8 (2016)

## PUBLICATIONS

- López C.A., Pedregosa J.C., Fernández-Díaz M.T., Alonso J.A. High-temperature dynamic octahedral tilting in the ionic conductor  $\text{Sr}_{11}\text{Mo}_4\text{O}_{23}$  *Journal of Applied Crystallography* **49**, 78-84 (2016)
- López C.A., Saleta M.E., Pedregosa J.C., Sánchez R.D., Lamas D.G., Alonso J.A., Fernández-Díaz M.T. Electronic properties in intrinsically disordered double perovskites:  $\text{Sr}_3\text{MnMo}_2\text{O}_9$  and  $\text{Ba}_3\text{MnMo}_2\text{O}_9$  with  $\text{Mo}^{5+}$  valence state *Journal of Alloys and Compounds* **661**, 411-418 (2016)
- Maier S., Denis S., Adam S., Crivello J.C., Joubert J.M., Alleno E. Order-disorder transitions in the  $\text{Fe}_2\text{VAl}$  Heusler alloy *Acta Materialia* **121**, 126-136 (2016)
- Malaman B., Le Caër G., Costa B.F.O. B2 long-range order in mechanically alloyed  $\text{Fe}_{53.3-0.6x}\text{Co}_{46.7-0.4x}\text{Sn}_x$  ( $2 \leq x \leq 26$ ) annealed at moderate temperatures *Journal of Materials Science* **51**, 5775-5790 (2016)
- Manzoni A.M., Denquin A., Vermaut P., Prima F., Puente-Orench I., Pauly C., Mücklich F., Portier R.A. Constrained hierarchical twinning in Ru-based high temperature shape memory alloys *Acta Materialia* **111**, 283-296 (2016)
- Mazzei L., Wolff M., Pergolesi D., Dura J.A., Börjesson L., Gutfreund P., Bettinelli M., Lippert T., Karlsson M. Structure and conductivity of epitaxial thin films of In-doped  $\text{BaZrO}_3$ -based proton conductors *Journal of Physical Chemistry C* **120**, 28415-28422 (2016)
- McMillan M.D., Booker J.D., Smith D.J., Onisa C.F., Korsunsky A.M., Song X., Baimpas N., Evans A. Analysis of increasing torque with recurrent slip in interference-fits *Engineering Failure Analysis* **62**, 58-74 (2016)
- Nervo L., King A., Fitzner A., Ludwig W., Preuss M. A study of deformation twinning in a titanium alloy by X-ray diffraction contrast tomography *Acta Materialia* **105**, 417-428 (2016)
- Pambou E., Li Z., Campana M., Hughes A., Clifton L., Gutfreund P., Foundling J., Bell G., Lu J.R. Structural features of reconstituted wheat wax films *Journal of the Royal Society Interface* **13**, 20160396-1-20160396-12 (2016)
- Piovano A., Perrichon A., Boehm M., Johnson M.R., Paulus W. Positional recurrence maps, a powerful tool to de-correlate static and dynamical disorder in distribution maps from molecular dynamics simulations: The case of  $\text{Nd}_2\text{NiO}_{4+d}$  *Physical Chemistry Chemical Physics* **18**, 17398-17403 (2016)
- Plantevin O. Irradiation ionique et auto-organisation de la matière Habilitation à diriger les recherches (2016)
- Popov A.I., Zimmermann J., McIntyre G.J., Wilkinson C. Photostimulated luminescence properties of neutron image plates *Optical Materials* **59**, 83-86 (2016)
- Rinaldi-Montes N., Gorria P., Martínez-Blanco D., Fuentes A.B., Puente-Orench I., Olivi L., Blanco J.A. Size effects on the Néel temperature of antiferromagnetic NiO nanoparticles *AIP Advances* **6**, 056104-1-056104-5 (2016)
- Sánchez-Alarcos V., Recarte V., Pérez-Landazábal J.I., Larumbe S., Caballero-Flores R., Unzueta I., García J.A., Plazaola F., Rodríguez-Velamazán J.A. Mechanically induced disorder and crystallization process in Ni-Mn-In ball-milled alloys *Journal of Alloys and Compounds* **689**, 983-991 (2016)
- Seidhofer B.K., Jerliu B., Trapp M., Hüger E., Risse S., Cubitt R., Schmidt H., Steitz R., Ballauff M. Lithiation of crystalline silicon as analyzed by operando neutron reflectivity *ACS Nano* **10**, 7458-7466 (2016)
- Sidoruk J., Leist J., Gibhardt H., Sobolev O., Ouladdiaf B., Mole R., Eckold G. Kinetics of domain redistribution in  $\text{SrTiO}_3$  under pulsed electric fields *Ferroelectrics* **505**, 200-209 (2016)
- Szost B.A., Terzi S., Martina F., Boisselier D., Prytuliak A., Pirling T., Hofmann M., Jarvis D.J. A comparative study of additive manufacturing techniques: Residual stress and microstructural analysis of CLAD and WAAM printed Ti-6Al-4V components *Materials and Design* **89**, 559-567 (2016)
- Tapasztó O., Tapasztó L., Lemmel H., Puchy V., Dusza J., Balázi C., Balázi K. High orientation degree of graphene nanoplatelets in silicon nitride composites prepared by spark plasma sintering *Ceramics International* **42**, 1002-1006 (2016)
- Wagner A., Bergner F., Chaouadi R., Hein H., Hernández-Mayoral M., Serrano M., Ulbricht A., Altstadt E. Effect of neutron flux on the characteristics of irradiation-induced nanostructures and hardening in pressure vessel steels *Acta Materialia* **104**, 131-142 (2016)
- Yin P., Wu B., Li T., Bonnesen P.V., Hong K., Seifert S., Porcar L., Do C., Keum J.K. Reduction-triggered self-assembly of nanoscale molybdenum oxide molecular clusters *Journal of the American Chemical Society* **138**, 10623-10629 (2016)

---

## Nuclear and Particle Physics

---

Zarrabeitia M., Castillo-Martínez E., López Del Amo J.M., Eguía-Barrio A., Muñoz-Márquez M.A., Rojo T., Casas-Cabanas M. Identification of the critical synthesis parameters for enhanced cycling stability of Na-ion anode material  $\text{Na}_2\text{Ti}_3\text{O}_7$   
*Acta Materialia* **104**, 125-130 (2016)

Benetti A.R., Jacobsen J., Lehnhoff B., Momsen N.C.R., Okhrimenko D.V., Telling M.T.F., Kardjilov N., Strobl M., Seydel T., Manke I., Bordallo H.N. How mobile are protons in the structure of dental glass ionomer cements?  
*Scientific Reports* **5**, 8972-1-8972-8 (2015)

Claudio T., Stein N., Petermann N., Stroppa D.G., Koza M.M., Wiggers H., Klobes B., Schiering G., Hermann R.P. Lattice dynamics and thermoelectric properties of nanocrystalline silicon-germanium alloys  
*Physica Status Solidi (a)* **213**, 515-523 (2015)

Le Floch S., Balima F., Pischedda V., Legrand F., San-Miguel A. Small angle scattering methods to study porous materials under high uniaxial strain  
*Review of Scientific Instruments* **86**, 023901-1-023901-6 (2015)

Martins M.L., Orecchini A., Aguilera L., Eckert J., Embs J., Matic A., Saeki M.J., Bordallo H.N. Encapsulation of paclitaxel into a bio-nanocomposite. A study combining inelastic neutron scattering to thermal analysis and infrared spectroscopy  
*EPJ Web of Conferences* **83**, 02011-1-02011-5 (2015)

Ruiz-González L., González-Merchante D., Cortés-Gil R., Alonso J.M., Martínez J.L., Hernando A., González-Calbet J.M. Outstanding atomic order in Ruddlesden-popper oxide microcrystals  
*Chemistry of Materials* **27**, 1397-1404 (2015)

Wildman E.J., Tucker M.G., McLaughlin A.C. A high pressure neutron study of colossal magnetoresistant  $\text{NdMnAsO}_{0.95}\text{F}_{0.05}$   
*Journal of Physics: Condensed Matter* **27**, 116001-1-116001-7 (2015)

Artem'ev V.A., Nezvanov A.Y., Nesvizhevsky V.V. Precise calculations in simulations of the interaction of low energy neutrons with nano-dispersed media  
*Crystallography Reports* **61**, 84-88 (2016)

Bączyk P., Urban W., Złotowska D., Czerwiński M., Rząca-Urban T., Konieczka M., Blanc A., Jentschel M., Mutti P., Köster U., Soldner T., de France G., Simpson G., Ur C. Near-yrast excitations in nucleus  $^{83}\text{As}$ : Tracing the deformation in the  $^{78}\text{Ni}$  region  
*Acta Physica Polonica B* **47**, 897-902 (2016)

Banerjee D., Biraben F., Charlton M., Cladé P., Comini P., Crivelli P., Dalkarov O., Debu P., Dodd L., Douillet A., Dufour G., Dupré P., Eriksson S., Froelich P., Grandemange P., Guellati S., Guérout R., Heinrich J.M., Hervieux P.A., Hilico L., Husson A., Indelicato P., Jonsell S., Karr J.P., Khabarova K., Kim S.K., Kim Y., Kolachevsky N., Kuroda N., Lambrecht A., Leite A.M.M., Liskay L., Lotrus P., Lunney D., Madsen N., Manfredi G., Mansouli B., Matsuda Y., Mohri A., Mornacchi G., Nesvizhevsky V., Nez F., Pérez P., Regenfus C., Rey J.M., Reymond J.M., Roussé J.Y., Reynaud S., Rubbia A., Sacquin Y., Schmidt-Kaler F., Sillitoe N., Staszczak M., Torii H., Vallage B., Valdes M., van der Werf D.P., Voronin A., Walz J., Wolf S., Wronka S., Yamazaki Y. Towards a test of the weak equivalence principle of gravity using anti-hydrogen at CERN  
 In «2016 Conference on Precision Electromagnetic Measurements» (CPEM, 2016) pp.1-2

Bērziņš J., Krasta T., Simonova L., Balodis M., Bondarenko V., Jentschel M., Urban W., Tomandl I. Levels of  $^{188}\text{Re}$  nucleus populated in thermal neutron capture reaction  
*Nuclear Physics A* **947**, 76-126 (2016)

Blau B., Daum M., Fertl M., Geltenbort P., Göttl L., Henneck R., Kirch K., Knecht A., Lauss B., Schmidt-Wellenburg P., Zsigmond G. A prestorage method to measure neutron transmission of ultracold neutron guides  
*Nuclear Instruments and Methods in Physics Research A* **807**, 30-40 (2016)

Bocchi G., Leoni S., Fornal B., Colò G., Bortignon P.F., Bottoni S., Bracco A., Michelagnoli C., Bazzacco D., Blanc A., de France G., Jentschel M., Köster U., Mutti P., Régis J.M., Simpson G., Soldner T., Ur C.A., Urban W., Fraile L.M., Lozeva R., Belvito B., Benzoni G., Bruce A., Carroll R., Cieplicka-Oryńczak N., Crespi F.C.L., Didierjean F., Jolie J., Korten W., Kröll T., Lalkovski S., Mach H., Märginean N., Melon B., Mengoni D., Million B., Nannini A., Napoli D., Olaizola B., Pazy V., Podolyák Z., Regan P.H., Saed-Samii N., Szpak B., Vedia V. The mutable nature of particle-core excitations with spin in the one-valence-proton nucleus  $^{133}\text{Sb}$   
*Physics Letters B* **760**, 273-278 (2016)

## PUBLICATIONS

- Chebboubi A., Kessedjian G., Faust H., Blanc A., Jentschel M., Köster U., Materna T., Méplan O., Sage C., Serot O. Development of a gas filled magnet spectrometer within the FIPPS project *Nuclear Instruments and Methods in Physics Research B* **376**, 120-124 (2016)
- Chebboubi A., Kessedjian G., Litaize O., Serot O., Faust H., Bernard D., Blanc A., Köster U., Meplan O., Mutti P., Sage C. Isomeric ratio measurements with the ILL LOHENGRIN spectrometer *EPJ Web of Conferences* **111**, 08003-1-08003-6 (2016)
- Chebboubi A., Kessedjian G., Sage C., Bernard D., Blanc A., Faust H., Köster U., Litaize O., Mutti P., Serot O.  $^{233}\text{U}$  mass yield measurements around and within the symmetry region with the ILL Lohengrin spectrometer *EPJ Web of Conferences* **111**, 08002-1-08002-6 (2016)
- Chechkin A.V., Ivanchik A.V., Serebrov A.P., Bobashev S.V. Effect of the neutron lifetime on processes in the early universe *Technical Physics* **61**, 1101-1105 (2016)
- Cieplicka-Oryńczak 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. Approaching complete low-spin spectroscopy of  $^{210}\text{Bi}$  with a cold-neutron capture reaction *Physical Review C* **93**, 054302-1-054302-22 (2016)
- Cieplicka-Oryńczak N., Szpak B., Leoni S., Fornal B., Bazzacco D., Blanc A., Bocchi G., Bottoni S., de France G., Jentschel M., Köster U., Mutti P., Simpson G., Soldner T., Ur C., Urban W. Multipolarity of the  $2^- \rightarrow 1^-$  ground-state transition in  $^{210}\text{Bi}$  via multivariable angular correlation analysis *Physical Review C* **94**, 014311-1-014311-7 (2016)
- Constantin P., Balabanski D.L., Cuong P.V. Simulation of photofission experiments at the ELI-NP facility *Nuclear Instruments and Methods in Physics Research A* **372**, 78-85 (2016)
- Czerwiński M., Rząca-Urban T., Urban W., Bączyk P., Sieja K., Timár J., Nyakó B.M., 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 odd-odd nucleus  $^{90}_{37}\text{Rb}_{53}$  *Physical Review C* **93**, 034318-1-034318-10 (2016)
- de la Fuente Joaquin A. Radiolabelling, in vitro and in vivo evaluation of metal-labelled biomolecules for PET imaging *PhD Thesis* (2016)
- Düsing C. UCN-Wandspeicherexperiment mit einem neuen Fluorpolymer *PhD Thesis* (2016)
- Faverzani M., Alpert B., Backer D., Bennet D., Biasotti M., Brofferio C., Cerialle V., Ceruti G., Corsini D., Day P.K., De Gerone M., Dressler R., Ferri E., Fowler J., Fumagalli E., Gard J., Gatti F., Giachero A., Hays-Wehle J., Heinitz S., Hilton G., Köster U., Lusignoli M., Maino M., Mates J., Nisi S., Nizzolo R., Nucciotti A., Orlando A., Parodi L., Pessina G., Pizzigoni G., Puiu A., Ragazzi S., Reintsema C., Ribeiro-Gomez M., Schmidt D., Schuman D., Siccardi F., Sisti M., Swetz D., Terranova F., Ullom J., Vale L. The HOLMES experiment *Journal of Low Temperature Physics* **184**, 922-929 (2016)
- Gagarski A., Gönnerwein F., Guseva I., Jesinger P., Kopatch Y., Kuzmina T., Lelièvre-Berna E., Mutterer M., Nesvizhevsky V., Petrov G., Soldner T., Tiourine G., Trzaska W.H., Zavarukhina T. Particular features of ternary fission induced by polarized neutrons in the major actinides  $^{233}\text{U}$  and  $^{239,241}\text{Pu}$  *Physical Review C* **93**, 054619-1-054619-18 (2016)
- Grabitz P., Andrianov V., Bishop S., Blanc A., Dubey S., Echler A., Egelhof P., Faust H., Gönnerwein F., Gomez-Guzman J.M., Köster U., Kraft-Bermuth S., Mutterer M., Scholz P., Stolte S. Determination of nuclear charge distributions of fission fragments from  $^{235}\text{U}(n_{\text{th}}, f)$  with calorimetric low temperature detectors *Journal of Low Temperature Physics* **184**, 944-951 (2016)
- Greene G., Geltenbort P. L'énigme de la durée de vie du neutron *Pour la Science* **468**, 1-10 (2016)
- Greene G.L., Geltenbort P.G. The neutron enigma *Scientific American* **314**, 36-41 (2016)
- Hassel C., Blaum K., Goodacre T.D., Dorrer H., Düllmann C.E., Eberhardt K., Eliseev S., Enss C., Filianin P., Fäßler A., Fleischmann A., Gastaldo L., Goncharov M., Hengstler D., Jochum J., Johnston K., Keller M., Kempf S., Kieck T., Köster U., Krantz M., Marsh B., Mokry C., Novikov Y.N., Ranitzsch P.C.O., Rothe S., Rischka A., Runke J., Saenz A., Schneider F., Scholl S., Schussler R.X., Simkovic F., Stora T., Thörle-Pospiech P., Türler A., Veinhard M., Wegner M., Wendt K., Zuber K. Recent results for the ECHO experiment *Journal of Low Temperature Physics* **184**, 910-921 (2016)
- Ilieva S., Kröll T., Régis J.M., Saed-Samii N., Blanc A., Bruce A.M., Fraile L.M., de France G., Hartig A.L., Henrich C., Ignatov A., Jentschel M., Jolie J., Korten W., Köster U., Lalkovski S., Lozeva R., Mach H., Mărginean N., Mutti P., Pazi V., Regan P.H., Simpson G.S., Soldner T., Thürauf M., Ur C.A., Urban W., Warr N. Measurement of picosecond lifetimes in neutron-rich Xe isotopes *Physical Review C* **94**, 034302-1-034302-8 (2016)

- Jungclaus A., Gargano A., Grawe H., Taprogge J., Nishimura S., Doornenbal P., Lorusso G., Shimizu Y., 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., Bönig S., Coraggio L., Daugas J.M., Drouet F., Gadea A., Ilieva S., Itaco N., Kröll T., Montaner-Pizá A., Moschner K., Mücher D., Nishibata H., Odahara A., Orlandi R., Wendt A. First observation of  $\gamma$  rays emitted from excited states south-east of  $^{132}\text{Sn}$ : The  $\pi g_{7/2}^{-1} \otimes \nu f_{7/2}$  multiplet of  $^{132}\text{In}_{83}$   
Physical Review C **93**, 041301-1-041301-6 (2016)
- Jungclaus A., Grawe H., Nishimura S., Doornenbal P., Lorusso G., Simpson G.S., Söderström P.A., Sumikama T., Taprogge J., 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., Shimizu Y., Steiger K., Suzuki H., Takeda H., Vajta Z., Watanabe H., Wu J., Yagi A., Yoshinaga K., Benzoni G., Bönig S., Chae K.Y., Coraggio L., Daugas J.M., Drouet F., Gadea A., Gargano A., Ilieva S., Itaco N., Kondev F.G., Kröll T., Lane G.J., Montaner-Pizá A., Moschner K., Mücher D., Naqvi F., Niikura M., Nishibata H., Odahara A., Orlandi R., Patel Z., Podolyák Z., Wendt A.  $\beta$  decay of semi-magic  $^{130}\text{Cd}$ : Revision and extension of the level scheme of  $^{130}\text{In}$   
Physical Review C **94**, 024303-1-024303-8 (2016)
- Klepp J., Pruner C., Tomita Y., Geltenbort P., Kohlbrecher J., Fally M. Advancing data analysis for reflectivity measurements of holographic nanocomposite gratings  
Journal of Physics: Conference Series **746**, 012022-1-012022-9 (2016)
- Kulin G.V., Frank A.I., Goryunov S.V., Geltenbort P., Jentschel M., Bushuev V.A., Lauss B., Schmidt-Wellenburg P., Panzarella A., Fuchs Y. Spectroscopy of ultracold neutrons diffracted by a moving grating  
Physical Review A **93**, 033606-1-033606-8 (2016)
- Leoni S. Interplay between collective and single particle excitations around neutron-rich doubly-magic nuclei  
EPJ Web of Conferences **117**, 04001-1-04001-10 (2016)
- Leung K.K.H., Geltenbort P., Ivanov S., Rosenau F., Zimmer O. Neutron lifetime measurements and effective spectral cleaning with an ultracold neutron trap using a vertical Halbach octupole permanent magnet array  
Physical Review C **94**, 045502-1-045502-15 (2016)
- Leung K.K.H., Ivanov S., Piegsa F.M., Simson M., Zimmer O. Ultracold-neutron production and up-scattering in superfluid helium between 1.1 K and 2.4 K  
Physical Review C **93**, 025501-1-025501-12 (2016)
- lychagin E.V., Mityukhlyayev V.A., Muzychka A.Y., Nekhaev G.V., Nesvizhevsky V.V., Onegin M.S., Sharapov E.I., Strelkov A.V. UCN sources at external beams of thermal neutrons. An example of PIK reactor  
Nuclear Instruments and Methods in Physics Research A **823**, 47-55 (2016)
- Mancuso C. Recherche de déformation dans des noyaux riches en neutrons  
PhD Thesis (2016)
- Mukhopadhyay S., Biswas D.C., Danu L.S., Blanc A., de France G., Jentschel M., Köster U., Leoni S., Mutti P., Simpson G., Soldner T., Ur C.A., Urban W. Isotopic yield distribution of neutron-rich fragment nuclei produced in thermal neutron induced fission  
In: "60. DAE-BRNS Symposium on Nuclear Physics" – Prasanthi Nilayam, India, pp.110-111 (2016)
- Mukhopadhyay S., Biswas D.C., Danu L.S., Kumawat A.K., Singh A., Blanc A., de France G., Jentschel M., Köster U., Leoni S., Mutti P., Simpson G., Soldner T., Ur C.A., Urban W. Excited  $0^+$  states and deformed structures in the transitional nucleus  $^{98}\text{Zr}$   
In: "60. DAE-BRNS Symposium on Nuclear Physics" – Prasanthi Nilayam, India, pp.94-95 (2016)
- Nyakó B.M., Timár J., Csatlós M., Dombrádi Z., Krasznahorkay A., Kuti I., Sohler D., Tornyi T.G., Czerwiński M., Rząca-Urban T., Urban W., Bączyk P., Atanasova L., Balabanski D.L., Sieja K., Blanc A., Jentschel M., Köster U., Mutti P., Soldner T., de France G., Simpson G.S., Ur C.A. Medium-spin states of the neutron-rich  $^{87,89}\text{Br}$  isotopes: Configurations and shapes  
Journal of Physics: Conference Series **724**, 012051-1-012051-6 (2016)
- Petukhov A.K., Nesvizhevsky V.V., Bigault T., Courtois P., Jullien D., Soldner T. A concept of advanced broad-band solid-state supermirror polarizers for cold neutrons  
Nuclear Instruments and Methods in Physics Research A **838**, 33-38 (2016)
- Sarrazin M., Pignol G., Lamblin J., Pinon J., Méplan O., Terwagne G., Debarsy P.L., Petit F., Nesvizhevsky V.V. Search for passing-through-walls neutrons constrains hidden braneworlds  
Physics Letters B **758**, 14-17 (2016)
- Schroffenegger J., Fierlinger P., Hollering A., Geltenbort P., Lauer T., Rauch H., Zechlau T. Improved measurement of the neutron absorption cross section for very low velocities  
Physics Letters B **752**, 212-216 (2016)

## PUBLICATIONS

- Serebrov A.P., Kolomenskiy E.A., Pirozhkov A.N., Krasnoshchekova I.A., Vasiliev A.V., Polyushkin A.O., Lasakov M.S., Murashkin A.N., Solovay V.A., Fomin A.K., Shoka I.V., Zherebtsov O.M., Aleksandrov E.B., Dmitriev S.P., Dovator N.A., Geltenbort P., Ivanov S.N., Zimmer O. Neutron electric dipole moment and possibilities of increasing accuracy of experiments  
Crystallography Reports **61**, 129-138 (2016)
- Serebrov A.P., Vassiljev A.V., Varlamov V.E., Geltenbort P.G., Gridnev K.A., Dmitriev S.P., Dovator N.A., Egorov A.I., Ezhov V.F., Zherebtsov O.M., Zinoviev V.G., Ivochkin V.G., Ivanov S.N., Ivanov S.A., Kolomenskiy E.A., Konoplev K.A., Krasnoshchekova I.A., Lasakov M.S., Lyamkin V.A., Martemyanov V.P., Murashkin A.N., Neustroev P.V., Onegin M.S., Petelin A.L., Pirozhkov A.N., Polyushkin A.O., Prudnikov D.V., Ryabov V.L., Samoylov R.M., Sbitnev S.V., Fomin A.K., Fomichev A.V., Zimmer O., Cherniy A.V., Shoka I.V. Program for studying fundamental interactions at the PIK reactor facilities  
Physics of Atomic Nuclei **79**, 293-303 (2016)
- Singh A., Biswas D.C., Mukhopadhyay S., Danu L.S., Blanc A., de France G., Jentschel M., Köster U., Leoni S., Mutti P., Simpson G., Soldner T., Ur C.A., Urban W. Fission fragment mass distribution in thermal neutron induced fission of  $^{235}\text{U}$   
In: "60. DAE-BRNS Symposium on Nuclear Physics" – Prasanthi Nilayam, India, pp.112-113 (2016)
- Sponar S., Denkmayr T., Geppert H., Hasegawa Y. Fundamental features of quantum dynamics studied in matter-wave interferometry-spin weak values and the quantum Cheshire-Cat  
Atoms **4**, 11-1-11-15 (2016)
- Theroin C. A neutron-antineutron oscillation experiment at the European Spallation Source  
Nuclear and Particle Physics Proceedings **273-275**, 156-161 (2016)
- Thurauf M., Scheck M., Bernards C., Blanc A., Cooper N., Defrance G., Jentschel M., Jolie J., Kaleja O., Köster U., Kröll T., Mutti P., Simpson G., Soldner T., Tezgel M., Urban W., Vanhoy J., Werner M., Werner V., Zell K. Identification of low-energy isovector octupole states in  $^{144}\text{Nd}$   
Journal of Physics : Conference Series **724**, 012050-1-012050-6 (2016)
- Truesdale V.L., Andreyev A.N., Ghys L., Huyse M., Van Duppen P., Sels S., Andel B., Antalic S., Barzakh A., Capponi L., Cocolios T.E., Derckx X., De Witte H., Elseviers J., Fedorov D.V., Fedosseev V.N., Hessberger F.P., Kalaninova Z., Köster U., Lane J.F.W., Liberati V., Lynch K.M., Marsh B.A., Mitsuoka S., Nagame Y., Nishio K., Ota S., Pauwels D., Popescu L., Radulov D., Rapisarda E., Rothe S., Sandhu K., Seliverstov M.D., Sjödin A.M., Van Beveren C., Van den Bergh P., Wakabayashi Y.  $\beta$ -delayed fission and  $\alpha$  decay of  $^{196}\text{At}$   
Physical Review C **94**, 034308-1-034308-11 (2016)
- Urban W., Köster U., Jentschel M., Mutti P., Märkisch B., Rzaca-Urban T., Bernards C., Fransen C., Jolie J., Thomas T., Simpson G.S. Precise measurement of energies in  $\text{Sn}_{115}$  following the  $(n,\gamma)$  reaction  
Physical Review C **94**, 011302-1-011302-4 (2016)
- Urban W., Sieja K., Materna T., Czerwinski M., Rzaca-Urban T., Blanc A., Jentschel M., Mutti P., Köster U., Soldner T., de France G., Simpson G.S., Ur C.A., Bernards C., Fransen C., Jolie J., Régis J.M., Thomas T., Warr N. Low-spin structure of  $^{86}_{35}\text{Br}_{51}$  and  $^{86}_{36}\text{Kr}_{50}$  nuclei: The role of the  $g_{7/2}$  neutron orbital  
Physical Review C **94**, 044328-1-044328-19 (2016)
- Van Beveren C., Andreyev A.N., Barzakh A.E., Cocolios T.E., de Groote R.P., Fedorov D., Fedosseev V.N., Ferrer R., Ghys L., Huyse M., Köster U., Lane J., Liberati V., Lynch K.M., Marsh B.A., Molkanov P.L., Procter T.J., Rapisarda E., Sandhu K., Seliverstov M.D., Van Duppen P., Venhart M., Veselský M.  $\alpha$ -decay study of  $^{182,184}\text{Tl}$   
Journal of Physics G: Nuclear and Particle Physics **43**, 025102-1-025102-22 (2016)
- Voronin A.Y., Kupriyanova E.A., Lambrecht A., Nesvizhevsky V.V., Reynaud S. Quenching of antihydrogen gravitational states by surface charges  
Journal of Physics B **49**, 205003-1-205003-7 (2016)
- Voronin A.Y., Nesvizhevsky V.V., Dufour G., Reynaud S. Quantum ballistic experiment on antihydrogen fall  
Journal of Physics B **49**, 054001-1-054001-8 (2016)
- Wločka S.A. Aspects of ultra-cold neutron production in radiation fields at the FRM II  
PhD Thesis (2016)
- Wienands J.N. Coils, fields and xenon: Towards measuring xenon spin precession in a magnetic field for the UCN collaboration  
PhD Thesis (2016)
- Yoshida T., Tachibana T., Chiba S. Analysis of electron and antineutrino energy spectra from fissile samples under irradiation based on gross theory of beta-decay  
EPJ Web of Conferences **122**, 10002-1-10002-9 (2016)
- Ilieva S., Bonig S., Hartig A.L., Henrich C., Ignatov A., Kröll T., Thurauf M., Jolie J., Régis J.M., Saed-Samii N., Blanc A., de France G., Jentschel M., Köster U., Mutti P., Simpson G.S., Soldner T., Urban W., Marginean N., Ur C.A., Mach H., Fraile L.M., Paziya V., Regan P.H., Bruce A.M., Lalkovski S., Korten W. Lifetime measurements in neutron-rich Xe isotopes – Evolution of quadrupole collectivity beyond  $^{132}\text{Sn}$   
JPS Conference Proceedings **6**, 020010-1-020010-6 (2015)

---

## Soft Matter

---

Pendlebury J.M., Afach S., Ayres N.J., Baker C.A., Ban G., Bison G., Bodek K., Burghoff M., Geltenbort P., Green K., Griffith W.C., van der Grinten M., Grujic Z.D., Harris P.G., Hélaine V., Iaydjiev P., Ivanov S.N., Kasprzak M., Kermaidic Y., Kirch K., Koch H.C., Komposch S., Kozela A., Krempel J., Lauss B., Lefort T., Lemièrre Y., May D.J.R., Musgrave M., Naviliat-Cuncic O., Piegsa F.M., Pignol G., Prashanth P.N., Quéméner G., Rawlik M., Rebreyend D., Richardson J.D., Ries D., Rocchia S., Rozpedzik D., Schnabel A., Schmidt-Wellenburg P., Severijns N., Shiers D., Thorne J.A., Weis A., Winston O.J., Wursten E., Zejma J., Zsigmond G. A revised experimental upper limit on the electric dipole moment of the neutron *Physical Review D* **92**, 092003-1-092003-23 (2015)

Pignol G., Guigue M., Petukhov A., Golub R. Frequency shifts and relaxation rates for spin-1/2 particles moving in electromagnetic fields *Physical Review A* **92**, 053407-1-053407-8 (2015)

Söderström P.A., Nishimura S., Xu Z.Y., Sieja K., Werner V., Doornenbal P., Lorusso G., Browne F., Gey G., Jung H.S., Sumikama T., Taprogge J., Vajta Z., Watanabe H., Wu J., Baba H., Dombradi Z., Franchoo S., Isobe T., John P.R., Kim Y.K., Kojouharov I., Kurz N., Kwon Y.K., Li Z., Matea I., Matsui K., Martínez-Pinedo G., Mengoni D., Morfouace P., Napoli D.R., Niikura M., Nishibata H., Odahara A., Ogawa K., Pietralla N., Şahin E., Sakurai H., Schaffner H., Sohler D., Stefan I.G., Suzuki D., Taniuchi R., Yagi A., Yoshinaga K. Two-hole structure outside Ni<sup>78</sup>: Existence of a  $\mu$ s isomer of <sup>76</sup>Co and  $\beta$  decay into <sup>76</sup>Ni *Physical Review C* **92**, 051305-1-051305-5 (2015)

Sponar S., Denkmayr T., Geppert H., Lemmel H., Matzkin A., Tollaksen J., Hasegawa Y. Weak values obtained in matter-wave interferometry *Physical Review A* **92**, 062121-1-062121-10 (2015)

Abdel Hamid A.R., Mhanna R., Lefort R., Ghoufi A., Alba-Simionesco C., Frick B., Morineau D. Microphase separation of binary liquids confined in cylindrical pores *Journal of Physical Chemistry C* **120**, 9245-9252 (2016)

Adrien V., Rayan G., Reffay M., Porcar L., Maldonado A., Ducruix A., Urbach W., Taulier N. Characterization of a biomimetic mesophase composed of nonionic surfactants and an aqueous solvent *Langmuir* **32**, 10268-10275 (2016)

Aoun B., Pellegrini E., Trapp M., Natali F., Cantù L., Brocca P., Gerelli Y., Demé B., Koza M.M., Johnson M., Peters J. Direct comparison of elastic incoherent neutron scattering experiments with molecular dynamics simulations of DMPC phase transitions *European Physical Journal E* **39**, 48-1-48-10 (2016)

Aoun B., Russo D. Nano-confinement of biomolecules: Hydrophilic confinement promotes structural order and enhances mobility of water molecules *Nano Research* **9**, 273-281 (2016)

Appel M., Frick B., Elbert J., Gallei M., Stühn B. Molecular ring rotation in poly(vinylferrocene) *Physical Chemistry Chemical Physics* **18**, 28973-28981 (2016)

Arbe A., Malo de Molina P., Alvarez F., Frick B., Colmenero J. Dielectric susceptibility of liquid water: Microscopic insights from coherent and incoherent neutron scattering *Physical Review Letters* **117**, 185501-1-185501-5 (2016)

Barrett M.A., Trapp M., Lohstroh W., Seydel T., Ollivier J., Ballauff M., Dencher N.A., Hauß T. Alzheimer's peptide amyloid- $\beta$  fragment 22-40, perturbs lipid dynamics *Soft Matter* **12**, 1444-1451 (2016)

Bello G., Bodin A., Lawrence M.J., Barlow D., Mason A.J., Barker R.D., Harvey R.D. The influence of rough lipopolysaccharide structure on molecular interactions with mammalian antimicrobial peptides *Biochimica et Biophysica Acta* **1858**, 197-209 (2016)

Berke B., Czakkel O., Porcar L., Geissler E., László K. Static and dynamic behaviour of responsive graphene oxide-poly(*N*-isopropyl acrylamide) composite gels *Soft Matter* **12**, 7166-7173 (2016)

Berrod Q., Ferdeghini F., Judeinstein P., Genevaz N., Ramos R., Fournier A., Dijon J., Ollivier J., Rols S., Yu D., Mole R.A., Zanotti J.M. Enhanced ionic liquid mobility induced by confinement in 1D CNT membranes *Nanoscale* **8**, 7845-7848 (2016)

## PUBLICATIONS

- Boué F., Combet J., Demé B., Heinrich M., Zilliox J.G., Rawiso M. SANS from salt-free aqueous solutions of hydrophilic and highly charged star-branched polyelectrolytes  
*Polymers* **8**, 228-1-228-19 (2016)
- Bouty A., Petitjean L., Chatard J., Matmour R., Degrandcourt C., Schweins R., Meneau F., Kwasniewski P., Boué F., Couty M., Jestin J. Interplay between polymer chain conformation and nanoparticle assembly in model industrial silica/rubber nanocomposites  
*Faraday Discussions* **186**, 325-343 (2016)
- Bucciarelli S., Myung J.S., Farago B., Das S., Vliegenthart G.A., Holderer O., Winkler R.G., Schurtenberger P., Gompper G., Stradner A. Dramatic influence of patchy attractions on short-time protein diffusion under crowded conditions  
*Science Advances* **2**, e1601432-1-1601432-9 (2016)
- Calabrese M.A., Rogers S.A., Porcar L., Wagner N.J. Understanding steady and dynamic shear banding in a model wormlike micellar solution  
*Journal of Rheology* **60**, 1001-1017 (2016)
- Campbell R.A., Tummino A., Noskov B.A., Varga I. Polyelectrolyte/surfactant films spread from neutral aggregates  
*Soft Matter* **12**, 5304-5312 (2016)
- Cavallaro G., Grillo I., Gradzielski M., Iazzara G. Structure of hybrid materials based on halloysite nanotubes filled with anionic surfactants  
*Journal of Physical Chemistry C* **120**, 13492-13502 (2016)
- Chang D.P., Dabkowska A.P., Campbell R.A., Wadsäter M., Barauskas J., Tiberg F., Nylander T. Interfacial properties of POPC/GDO liquid crystalline nanoparticles deposited on anionic and cationic silica surfaces  
*Physical Chemistry Chemical Physics* **18**, 26630-26642 (2016)
- Dennison A.J.C., Jones R.A.L., Staniforth R.A., Parnell A.J. Interaction of partially denatured insulin with a DSPC floating lipid bilayer  
*Soft Matter* **12**, 824-829 (2016)
- Di Cola E., Grillo I., Ristori S. Small angle X-ray and neutron scattering: Powerful tools for studying the structure of drug-loaded liposomes  
*Pharmaceutics* **8**, 10-1-10-16 (2016)
- Draper E.R., Schweins R., Akhtar R., Groves P., Chechik V., Zwijnenburg M.A., Adams D.J. Reversible photoreduction as a trigger for photoresponsive gels  
*Chemistry of Materials* **28**, 6336-6341 (2016)
- Dyakonova M.A. Stimuli-responsive reversible hydrogels from polyampholytes  
PhD Thesis (2016)
- Fruhbeiser S., Mariani G., Gröhn F. Porphyrin diacid-polyelectrolyte assemblies: Effective photocatalysts in solution  
*Polymers* **8**, 180-1-180-19 (2016)
- Godfrin P.D., Zarraga I.E., Zarzar J., Porcar L., Falus P., Wagner N.J., Liu Y. Effect of hierarchical cluster formation on the viscosity of concentrated monoclonal antibody formulations studied by neutron scattering  
*Journal of Physical Chemistry B* **120**, 278-291 (2016)
- Golub M., Lott D., Garamus V.M., Laipple D., Stoermer M., Watkins E.B., Schreyer A., Willumeit-Römer R. Neutron study of phospholipids 1-palmitoyl-2-oleoyl-sn-glycero-3-phospho-ethanolamine spray coating on titanium implants  
*Biointerphases* **11**, 011002-1-011002-8 (2016)
- Guilbert A.A.Y., Zbiri M., Jenart M.V.C., Nielsen C.B., Nelson J. New insights into the molecular dynamics of P3HT:PCBM bulk heterojunction: A time-of-flight quasi-elastic neutron scattering study  
*Journal of Physical Chemistry Letters* **7**, 2252-2257 (2016)
- Gupta S., Biehl R., Sill C., Allgaier J., Sharp M., Ohl M., Richter D. Protein entrapment in polymeric mesh: Diffusion in crowded environment with fast process on short scales  
*Macromolecules* **49**, 1941-1949 (2016)
- Hart J.M., Kimani S.M., Hutchings I.R., Grillo I., Hughes A.V., Clarke N., Garcia-Sakai V., Rogers S.E., Mendis B., Thompson R.L. Spontaneous nanoparticle dispersal in polybutadiene by brush-forming end-functional polymers  
*Macromolecules* **49**, 1434-1443 (2016)
- Hedegaard S.F., Cárdenas M., Barker R., Jorgensen L., Van de weert M. Lipidation effect on surface adsorption and associated fibrillation of the model protein insulin  
*Langmuir* **32**, 7241-7249 (2016)
- Hemmerle A., Fragneto G., Daillant J., Charitat T. Reduction in tension and stiffening of lipid membranes in an electric field revealed by X-ray scattering  
*Physical Review Letters* **116**, 228101-1-228101-5 (2016)
- Hémonnot C.Y.J., Reinhardt J., Saldanha O., Patommel J., Graceffa R., Weinhausen B., Burghammer M., Schroer C.G., Köster S. X-rays reveal the internal structure of keratin bundles in whole cells  
*ACS Nano* **10**, 3553-3561 (2016)
- Hernandez-Pascacio J., Piñeiro A., Ruso J.M., Hassan N., Campbell R.A., Campos-Terán J., Costas M. Complex behavior of aqueous  $\alpha$ -cyclodextrin solutions. Interfacial morphologies resulting from bulk aggregation  
*Langmuir* **32**, 6682-6690 (2016)

- Hoffmann I., Simon M., Farago B., Schweins R., Falus P., Holderer O., Gradzielski M. Structure and dynamics of polyelectrolyte surfactant mixtures under conditions of surfactant excess  
*Journal of Chemical Physics* **145**, 124901-1-124901-11 (2016)
- Jouault N., Jestin J. Intra- and interchain correlations in polymer nanocomposites: A small-angle neutron scattering extrapolation method  
*ACS Macro Letters* **5**, 1095-1099 (2016)
- Kawecki M., Gutfreund P., Adlmann F.A., Lindholm E., Longeville S., Lapp A., Wolff M. Probing the dynamics of high-viscosity entangled polymers under shear using Neutron Spin Echo spectroscopy  
*Journal of Physics: Conference Series* **746**, 012014-1-012014-8 (2016)
- Klemmer H.F.M., Harbauer C., Strey R., Grillo I., Sottmann T. Formation kinetics of oil-rich, nonionic microemulsions  
*Langmuir* **32**, 6360-6366 (2016)
- Kuttich B., Ivanova O., Grillo I., Stühn B. Polymer loaded microemulsions: Changeover from finite size effects to interfacial interactions  
*Journal of Chemical Physics* **145**, 164904-1-164904-6 (2016)
- Kutz A., Mariani G., Gröhn F. Ionic dye-surfactant nanoassemblies: Interplay of electrostatics, hydrophobic effect, and  $\pi$ - $\pi$  stacking  
*Colloid and Polymer Science* **294**, 591-606 (2016)
- Kyriakos K., Philipp M., Lin C.H., Dyakonova M., Vishnevskaya N., Grillo I., Zaccane A., Miasnikova A., Laschewsky A., Müller-Buschbaum P., Papadakis C.M. Quantifying the interactions in the aggregation of thermoresponsive polymers: The effect of cononsolvency  
*Macromolecular Rapid Communications* **37**, 420-425 (2016)
- Lang C., Kohlbrecher J., Porcar L., Lettinga M.P. The connection between biaxial orientation and shear thinning for quasi-ideal rods  
*Polymers* **8**, 291-1-291-17 (2016)
- Lenton S., Nylander T., Holt C., Sawyer L., Härtlein M., Müller H., Teixeira S.C.M. Structural studies of hydrated samples of amorphous calcium phosphate and phosphoprotein nanoclusters  
*European Biophysics Journal* **45**, 405-412 (2016)
- Liu X., Haddou M., Grillo I., Mana Z., Chapel J.P., Schatz C. Early stage kinetics of polyelectrolyte complex coacervation monitored through stopped-flow light scattering  
*Soft Matter* **12**, 9030-9038 (2016)
- Lühmann N., Niu A., Allgaier J., Stellbrink J., Zorn R., Linnolahti M., Willbold S., Koenig B.W., Grillo I., Richter D., Fetters L.J. The initiation mechanism of butadiene polymerization in aliphatic hydrocarbons: A full mechanistic approach  
*Macromolecules* **49**, 5397-5406 (2016)
- Lungova M., Krutyeva M., Pyckhout-Hintzen W., Wischnewski A., Monkenbusch M., Allgaier J., Ohl M., Sharp M., Richter D. Nanoscale motion of soft nanoparticles in unentangled and entangled polymer matrices  
*Physical Review Letters* **117**, 147803-1-147803-5 (2016)
- Maccarrone S., Ghavami A., Holderer O., Scherzinger C., Lindner P., Richtering W., Richter D., Winkler R.G. Dynamic structure factor of core-shell microgels: A neutron scattering and mesoscale hydrodynamic simulation study  
*Macromolecules* **49**, 3608-3618 (2016)
- Mansfield E.D.H., de la Rosa V.R., Kowalczyk R.M., Grillo I., Hoogenboom R., Sillence K., Hole P., Williams A.C., Khutoryanskiy V.V. Side chain variations radically alter the diffusion of poly(2-alkyl-2-oxazoline) functionalised nanoparticles through a mucosal barrier  
*Biomaterials Science* **4**, 1318-1327 (2016)
- Mariani G., Moldenhauer D., Schweins R., Gröhn F. Elucidating electrostatic self-assembly: Molecular parameters as key to thermodynamics and nanoparticle shape  
*Journal of the American Chemical Society* **138**, 1280-1293 (2016)
- Mariani G., Schweins R., Gröhn F. Electrostatic self-assembly of dendrimer macroions and multivalent dye counterions: The role of solution ionic strength  
*Macromolecules* **49**, 8661-8671 (2016)
- Mariani G., Schweins R., Gröhn F. Structure tuning of electrostatically self-assembled nanoparticles through pH  
*Journal of Physical Chemistry B* **120**, 1380-1389 (2016)
- Matsarkaia O., Braun M.K., Roosen-Runge F., Wolf M., Zhang F., Roth R., Schreiber F. Cation-induced hydration effects cause lower critical solution temperature behavior in protein solutions  
*Journal of Physical Chemistry B* **120**, 7731-7736 (2016)
- Mehan S., Kumar S., Aswal V.K., Schweins R. Modifications in structure and interaction of nanoparticle-protein-surfactant complexes in electrolyte solution  
*AIP Conference Proceedings* **1731**, 050123-1-050123-3 (2016)
- Mitra S., Sharma V.K., Garcia-Sakai V., Orecchini A., Seydel T., Johnson M., Mukhopadhyay R. Enhancement of lateral diffusion in cationic vesicles during multilamellar-to-unilamellar transition  
*Journal of Physical Chemistry B* **120**, 3777-3784 (2016)
- Monkenbusch M., Krutyeva M., Pyckhout-Hintzen W., Antonius W., Hövelmann C.H., Allgaier J., Brás A., Farago B., Wischnewski A., Richter D. Molecular view on supramolecular chain and association dynamics  
*Physical Review Letters* **117**, 147802-1-147802-5 (2016)

## PUBLICATIONS

- Montis C., Gerelli Y., Fragneto G., Nylander T., Baglioni P., Berti D. Nucleolipid bilayers: A quartz crystal microbalance and neutron reflectometry study  
*Colloids and Surfaces B: Biointerfaces* **137**, 203-213 (2016)
- Nagy B., Tóth A., Savina I., Mikhalovsky S., Mikhalovska L., Grillo I., Geissler E., László K. Small angle neutron scattering study of globular proteins confined in porous carbons  
*Carbon* **106**, 142-151 (2016)
- Oppo C.I., Malindretos J., Zamani R.R., Broxtermann D., Segura-Ruiz J., Martínez-Criado G., Ricci P.C., Rizzi A. Polarity dependent strongly inhomogeneous In-incorporation in GaN nanocolumns  
*Nanotechnology* **27**, 355703-1-355703-8 (2016)
- Rana S., Barick K.C., Shetake N.G., Verma G., Aswal V.K., Panicker L., Pandey B.N., Hassan P.A. PEG functionalized luminescent lipid particles for cellular imaging  
*Chemical Physics Letters* **659**, 225-229 (2016)
- Ruocco N., Auhl D., Bailly C., Lindner P., Pyckhout-Hintzen W., Wischniewski A., Leal I.G., Hadjichristidis N., Richter D. Branch point withdrawal in elongational startup flow by time-resolved small angle neutron scattering  
*Macromolecules* **49**, 4330-4339 (2016)
- Sanchez-Fernandez A., Arnold T., Jackson A.J., Fussell S.L., Heenan R.K., Campbell R.A., Edler K.J. Micellization of alkyltrimethylammonium bromide surfactants in choline chloride: Glycerol deep eutectic solvent  
*Physical Chemistry Chemical Physics* **18**, 33240-3249 (2016)
- Sanchez-Fernandez A., Edler K.J., Arnold T., Heenan R.K., Porcar L., Terrill N.J., Terry A.E., Jackson A.J. Micelle structure in a deep eutectic solvent: A small-angle scattering study  
*Physical Chemistry Chemical Physics* **18**, 14063-14073 (2016)
- Schmid A.J., Dubbert J., Rudov A.A., Pedersen J.S., Lindner P., Karg M., Potemkin I.I., Richtering W. Multi-shell hollow nanogels with responsive shell permeability  
*Scientific Reports* **6**, 22736-1-22736-13 (2016)
- Schmiele M., Busch S., Morhenn H., Schindler T., Schmutzler T., Schweins R., Lindner P., Boesecke P., Westermann M., Steiniger F., Funari S.S., Unruh T. Structural characterization of lecithin-stabilized tetracosane lipid nanoparticles. Part I: Emulsions  
*Journal of Physical Chemistry B* **120**, 5505-5512 (2016)
- Schmiele M., Busch S., Morhenn H., Schindler T., Schmutzler T., Schweins R., Lindner P., Boesecke P., Westermann M., Steiniger F., Funari S.S., Unruh T. Structural characterization of lecithin-stabilized tetracosane lipid nanoparticles. Part II: Suspensions  
*Journal of Physical Chemistry B* **120**, 5513-5526 (2016)
- Schneck E., Scoppola E., Drnec J., Mocuta C., Felici R., Novikov D., Fragneto G., Daillant J. Atom-scale depth localization of biologically important chemical elements in molecular layers  
*Proceedings of the National Academy of Sciences* **113**, 9521-9526 (2016)
- Schönhals A., Zorn R., Frick B. Inelastic neutron spectroscopy as a tool to investigate nanoconfined polymer systems  
*Polymer* **105**, 393-406 (2016)
- Scoppola E., Watkins E.B., Campbell R.A., Konovalov O., Girard L., Dufrière J.F., Ferru G., Fragneto G., Diat O. Solvent extraction: Structure of the liquid-liquid interface containing a diamide ligand  
*Angewandte Chemie International Edition* **55**, 9326-9330 (2016)
- Serra-Gómez R., Dreiss C.A., González-Benito J., González-Gaitano G. Structure and rheology of poloxamine T1107 and its nanocomposite hydrogels with cyclodextrin-modified barium titanate nanoparticles  
*Langmuir* **32**, 6398-6408 (2016)
- Stöter M., Gödrich S., Feicht P., Rosenfeldt S., Thurn H., Neubauer J.W., Seuss M., Lindner P., Kalo H., Möller M., Fery A., Förster S., Papastavrou G., Breu J. Controlled exfoliation of layered silicate heterostructures into bilayers and their conversion into giant Janus platelets  
*Angewandte Chemie* **128**, 7524-7528 (2016)
- Tavagnacco L., Gerelli Y., Cesàro A., Brady J.W. Stacking and branching in self-aggregation of caffeine in aqueous solution: From the supramolecular to atomic scale clustering  
*Journal of Physical Chemistry B* **120**, 9987-9996 (2016)
- Thater J.C., Sottmann T., Stubenrauch C. Alcohol as tuning parameter in an IL-containing microemulsion: The quaternary system EAN-*n*-octane-C<sub>12</sub>E<sub>3</sub>-1-octanol  
*Colloids and Surfaces A* **494**, 139-146 (2016)
- Udoh C.E., Garbin V., Cabral J.T. Microporous polymer particles via phase inversion in microfluidics: Impact of nonsolvent quality  
*Langmuir* **32**, 8131-8140 (2016)
- Vishnevetskaya N.S., Hildebrand V., Niebuur B., Grillo I., Filippov S.K., Laschewsky A., Müller-Buschbaum P., Papadakis C.M. Aggregation behavior of doubly thermoresponsive polysulfobetaine-b-poly(N-isopropylacrylamide) diblock copolymers  
*Macromolecules* **49**, 6655-6668 (2016)
- Weber A., Stühn B. Structure and phase behavior of polymer loaded non-ionic and anionic microemulsions  
*Journal of Chemical Physics* **144**, 144903-1-144903-9 (2016)

- Yepuri N.R., Darwish T.A., Krause-Heuer A.M., Leung A.E., Delhom R., Wacklin H.P., Holden P.J. Synthesis of perdeuterated 1-palmitoyl-2-oleoyl-*sn*-glycero-3-phosphocholine ([D<sub>82</sub>]POPC) and characterisation of its lipid bilayer membrane structure by neutron reflectometry  
*ChemPlusChem* **81**, 315-321 (2016)
- Cardoso A.Z., Mears L.L.E., Cattoz B.N., Griffiths P.C., Schweins R., Adams D.J. Linking micellar structures to hydrogelation for salt-triggered dipeptide gels  
*Soft Matter* **12**, 3612-3621 (2016)
- Zbiri M., Haverkate L.A., Kearley G.J., Johnson M.R., Mulder F.M. Structure and dynamics of a model discotic organic conducting material  
*Journal of Physics: Conference Series* **758**, 012012-1-012012-6 (2016)
- Zhong Q., Metwalli E., Rawolle M., Kaune G., Bivigou-Koumba A.M., Laschewsky A., Papadakis C.M., Cubitt R., Wang J., Müller-Buschbaum P. Influence of hydrophobic polystyrene blocks on the rehydration of polystyrene-block-poly(methoxy diethylene glycol acrylate)-block-polystyrene films investigated by in situ neutron reflectivity  
*Macromolecules* **49**, 317-326 (2016)
- Zielinska K., Sun H., Campbell R.A., Zarbakhsh A., Resmini M. Smart nanogels at the air/water interface: Structural studies by neutron reflectivity  
*Nanoscale* **8**, 4951-4960 (2016)
- Dos Santos L., Maréchal M., Guillermo A., Lyonnard S., Moldovan S., Ersen O., Sel O., Perrot H., Laberty-Robert C. Proton transport in electrospun hybrid organic-inorganic membranes: An illuminating paradox  
*Advanced Functional Materials* **26**, 594-604 (2015)
- Godfrin P.D., Hudson S.D., Hong K., Porcar L., Falus P., Wagner N.J., Liu Y. Short-time glassy dynamics in viscous protein solutions with competing interactions  
*Physical Review Letters* **115**, 228302-1-228302-5 (2015)
- Gurnon A.K., Wagner N.J. Microstructure and rheology relationships for shear thickening colloidal dispersions  
*Journal of Fluid Mechanics* **769**, 242-276 (2015)
- Hepfner N., Chu F., Lu Y., Lindner P., Ballauff M., Dzubiella J. Nonequilibrium structure of colloidal dumbbells under oscillatory shear  
*Physical Review E* **92**, 052311-1-052311-11 (2015)
- James D., Higgins A.M., Rees P., Geoghegan M., Brown M.R., Chang S., Mon D., Cubitt R., Dalgliesh R., Gutfreund P. Measurement of molecular mixing at a conjugated polymer interface by specular and off-specular neutron scattering  
*Soft Matter* **11**, 9393-9403 (2015)
- Jamshad M., Grimard V., Idini I., Knowles T.J., Dowle M.R., Schofield N., Sridhar P., Lin Y., Finka R., Wheatley M., Thomas O.R.T., Palmer R.E., Overduin M., Govaerts C., Ruyschaert J., Edler K.J., Dafforn T.R. Structural analysis of a nanoparticle containing a lipid bilayer used for detergent-free extraction of membrane proteins  
*Nano Research* **8**, 774-789 (2015)
- Korobko A.V., Marques C.M., Schöps M., Schädler V., Wiesner U., Mendes E. Dielectric discontinuity in equilibrium block copolymer micelles  
*Soft Matter* **11**, 7081-7085 (2015)
- Le Roy A., Wang K., Schaack B., Schuck P., Breyton C., Ebel C. AUC and small-angle scattering for membrane proteins  
*Methods in Enzymology* **562**, 257-286 (2015)
- Marcus J., Touraud D., Prévost S., Diat O., Zemb T., Kunz W. Influence of additives on the structure of surfactant-free microemulsions  
*Physical Chemistry Chemical Physics* **17**, 32528-32538 (2015)
- Newby G.E., Watkins E.B., Merino D.H., Staniec P.A., Bikondoa O. In situ Rheo-GISANS of triblock copolymers: Gelation and shear effects on quasi-crystalline structures at interfaces  
*RSC Advances* **5**, 104164-104171 (2015)
- Sebastiani F., Campbell R.A., Pfrang C. Complementarity of neutron reflectometry and ellipsometry for the study of atmospheric reactions at the air-water interface  
*RSC Advances* **5**, 107105-107111 (2015)
- Tang J., Alsop R.J., Schmalz K., Epan R.M., Rheinstädter M.C. Strong static magnetic fields increase the gel signal in partially hydrated DPPC/DMPC membranes  
*Membranes* **5**, 532-552 (2015)
- Tucker I.M., Petkov J.T., Penfold J., Thomas R.K., Cox A.R., Hedges N. Adsorption of hydrophobin-protein mixtures at the air-water interface: The impact of pH and electrolyte  
*Langmuir* **31**, 10008-10016 (2015)
- Yamamoto A., Abouillan W., Burk A.S., Körner A., Ries A., Werz D.B., Demé B., Tanaka M. Influence of length and conformation of saccharide head groups on the mechanics of glycolipid membranes: Unraveled by off-specular neutron scattering  
*Journal of Chemical Physics* **142**, 154907-1-154907-8 (2015)

## PUBLICATIONS

## Spectroscopy in Solid State Physics and Chemistry

Aramini M., Niskanen J., Cavallari C., Pontiroli D., Musazay A., Krisch M., Hakala M., Huotari S. Probing the thermal stability and the decomposition mechanism of a magnesium-fullerene polymer via X-ray Raman spectroscopy, X-ray diffraction and molecular dynamics simulations

Physical Chemistry Chemical Physics **18**, 5366-5371 (2016)

Bahn E., Czakkel O., Nagy B., László K., Villar-Rodil S., Tascón J.M.D., Demmel F., Telling M.T.F., Fouquet P. Diffusion of molecular hydrogen in carbon aerogel

Carbon **98**, 572-581 (2016)

Bayliss R.D., Berry F.J., Cumby J.C., Greaves C., Jumas J.C., Marco J.F. Synthetic versiliaite and apuanite: Investigation by  $^{57}\text{Fe}$  Mössbauer spectroscopy

Hyperfine Interactions **237**, 98-1-98-7 (2016)

Borges D.D., Devautour-Vinot S., Jobic H., Ollivier J., Nouar F., Semino R., Devic T., Serre C., Paesani F., Maurin G. Proton transport in a highly conductive porous zirconium-based metal-organic framework: Molecular insight

Angewandte Chemie **128**, 3987-3992 (2016)

Borges D.D., Devautour-Vinot S., Jobic H., Ollivier J., Nouar F., Semino R., Devic T., Serre C., Paesani F., Maurin G. Proton transport in a highly conductive porous zirconium-based metal-organic framework: Molecular insight

Angewandte Chemie International Edition **55**, 3919-3924 (2016)

Bugaev A.L., Guda A.A., Lomachenko K.A., Lazzarini A., Srabionyan V.V., Vitillo J.G., Piovano A., Groppo E., Bugaev L.A., Soldatov A.V., Dmitriev V.P., Pellegrini R., van Bokhoven J.A., Lamberti C. Hydride phase formation in carbon supported palladium hydride nanoparticles by in situ EXAFS and XRD

Journal of Physics: Conference Series **712**, 012032-1-012032-5 (2016)

Cairns A.J., Eckert J., Wojtas L., Thommes M., Wallacher D., Georgiev P.A., Forster P.M., Belmabkhout Y., Ollivier J., Eddaoudi M. Gaining insights on the  $\text{H}_2$ -sorbent interactions: Robust soc-MOF platform as a case study

Chemistry of Materials **28**, 7353-7361 (2016)

Calvo-Almazán I., Sacchi M., Tamiögl A., Bahn E., Koza M.M., Miret-Artés S., Fouquet P. Ballistic diffusion in polyaromatic hydrocarbons on graphite

Journal of Physical Chemistry Letters **7**, 5285-5290 (2016)

Cavallari C., Pontiroli D., Jiménez-Ruiz M., Johnson M., Aramini M., Gaboardi M., Parker S.F., Riccò M., Rols S. Hydrogen motions in defective graphene: The role of surface defects

Physical Chemistry Chemical Physics **18**, 24820-24824 (2016)

D'Astuto M., Heid R., Renker B., Weber F., Schober H., De la Peña-Seaman O., Karpinski J., Zhigadlo N.D., Bossak A., Krisch M. Nonadiabatic effects in the phonon dispersion of  $\text{Mg}_{1-x}\text{Al}_x\text{B}_2$

Physical Review B **93**, 180508-1-180508-5 (2016)

Damay F., Petit S., Rols S., Braendlein M., Daou R., Elkaïm E., Fauth F., Gascoin F., Martin C., Maignan A. Localised  $\text{Ag}^+$  vibrations at the origin of ultralow thermal conductivity in layered thermoelectric  $\text{AgCrSe}_2$

Scientific Reports **6**, 23415-1-23415-7 (2016)

Ellis T.K., Kearley G.J., Piltz R.O., Jayasooriya U.A., Stride J.A. Achirality in the low temperature structure and lattice modes of tris(acetylacetonate)iron(III)

Dalton Transactions **45**, 8278-8283 (2016)

Fang W., Pirez C., Paul S., Jiménez-Ruiz M., Jobic H., Dumeignil F., Jalowiecki-Duhamel L. Advanced functionalized  $\text{Mg}_2\text{AlNi}_x\text{H}_2\text{O}_y$  nano-oxyhydrides ex-hydrotalcites for hydrogen production from oxidative steam reforming of ethanol

International Journal of Hydrogen Energy **41**, 15443-15452 (2016)

Gupta M.K., Singh B., Mittal R., Rols S., Chaplot S.L. Lattice dynamics and thermal expansion behavior in the metal cyanides  $\text{MCN}$  ( $M = \text{Cu}, \text{Ag}, \text{Au}$ ): Neutron inelastic scattering and first-principles calculations

Physical Review B **93**, 134307-1-134307-10 (2016)

Jones A.O.F., Kallay A.A., Lloyd H., McIntyre G.J., Wilson C.C., Thomas L.H. The effect of local crystalline environment on hydrogen atom behavior in molecular complexes of a proton sponge

Crystal Growth & Design **16**, 2123-2129 (2016)

Krachmalnicoff A., Bounds R., Mamone S., Alom S., Concistrè M., Meier B., Kořil K., Light M.E., Johnson M.R., Rols S., Horsewill A.J., Shugai A., Nagel U., Rööm T., Carravetta M., Levitt M.H., Whitby R.J. The dipolar endofullerene  $\text{HF}@C_{60}$

Nature Chemistry **8**, 953-957 (2016)

Lazzarini A., Piovano A., Pellegrini R., Leofanti G., Agostini G., Rudić S., Chierotti M.R., Gobetto R., Battiatto A., Spoto G., Zecchina A., Lamberti C., Groppo E. A comprehensive approach to investigate the structural and surface properties of activated carbons and related Pd-based catalysts

Catalysis Science & Technology **6**, 4910-4922 (2016)

Lemishko T., Simancas J., Hernández-Rodríguez M., Jiménez-Ruiz M., Sastre G., Rey F. An INS study of entrapped organic cations within the micropores of zeolite RTH

Physical Chemistry Chemical Physics **18**, 17244-17252 (2016)

- Lemishko T., Valencia S., Rey F., Jiménez-Ruiz M., Sastre G. Inelastic neutron scattering study on the location of Brønsted acid sites in high silica LTA zeolite  
*Journal of Physical Chemistry C* **120**, 24904-24909 (2016)
- Mamone S., Jiménez-Ruiz M., Johnson M.R., Rols S., Horsewill A.J. Experimental, theoretical and computational investigation of the inelastic neutron scattering spectrum of a homonuclear diatomic molecule in a nearly spherical trap:  $H_2@C_{60}$   
*Physical Chemistry Chemical Physics* **18**, 29369-29380 (2016)
- Mamone S., Johnson M.R., Ollivier J., Rols S., Levitt M.H., Horsewill A.J. Symmetry-breaking in the  $H_2@C_{60}$  endofullerene revealed by inelastic neutron scattering at low temperature  
*Physical Chemistry Chemical Physics* **18**, 1998-2005 (2016)
- Michot L.J., Ferrage E., Delville E., Jiménez-Ruiz M. Influence of layer charge, hydration state and cation nature on the collective dynamics of interlayer water in synthetic swelling clay minerals  
*Applied Clay Science* **119**, 375-384 (2016)
- Mishra S.K., Mittal R., Zbiri M., Rao R., Goel P., Hibble S.J., Chippindale A.M., Hansen T., Schober H., Chaplot S.L. New insights into the compressibility and high-pressure stability of  $Ni(CN)_2$ : A combined study of neutron diffraction, Raman spectroscopy, and inelastic neutron scattering  
*Journal of Physics: Condensed Matter* **28**, 045402-1-045402-11 (2016)
- Noferini D., Koza M.M., Fouquet P., Nilsen G.J., Kemei M.C., Rahman S.M.H., Maccarini M., Eriksson S., Karlsson M. Proton dynamics in hydrated  $BaZr_{0.9}M_{0.1}O_{2.95}$  ( $M = Y$  and  $Sc$ ) investigated with neutron spin-echo  
*Journal of Physical Chemistry C* **120**, 13963-13969 (2016)
- Pajzderska A., Druzicki K., Kiwilsza A., Gonzalez M.A., Jenczyk J., Jurga S., Mielcarek J., Wąsicki J. On the molecular dynamics in long-acting calcium channel blocker lacidipine: Solid-state NMR, neutron scattering and periodic DFT study  
*RSC Advances* **6**, 66617-66629 (2016)
- Sena P.R., Hadermann J., Chin C., Hunter E.C., Battle P.D. Structural chemistry and magnetic properties of the perovskite  $SrLa_2Ni_2TeO_9$   
*Journal of Solid State Chemistry* **243**, 304-311 (2016)
- Parker S.F., García Sakai V., Lennon D., Jackson A., Johnson M.R., Jayasooriya U.A. Methyl tunnelling of adsorbed methoxy on alumina catalysts  
*Chemical Communications* **52**, 366-369 (2016)
- Recarte V., Zbiri M., Jiménez-Ruiz M., Sánchez-Alarcos V., Pérez-Landazábal J.I. Determination of the vibrational contribution to the entropy change at the martensitic transformation in Ni-Mn-Sn metamagnetic shape memory alloys: A combined approach of time-of-flight neutron spectroscopy and *ab initio* calculations  
*Journal of Physics: Condensed Matter* **28**, 205402-1-205402-6 (2016)
- Savage M., da Silva I., Johnson M., Carter J.H., Newby R., Suyetin M., Besley E., Manuel P., Fitch A.N., Rudić S., Murray C., David W.I.F., Yang S., Schröder M. Observation of binding and rotation of methane and hydrogen within a functional metal-organic framework  
*Journal of the American Chemical Society* **138**, 9119-9127 (2016)
- Yang D., Chatterji T., Schiemer J.A., Carpenter M.A. Strain coupling, microstructure dynamics, and acoustic mode softening in germanium telluride  
*Physical Review B* **93**, 144109-1-144109-9 (2016)
- Zanotti J.M., Judeinstein P., Dalla-Bernardina S., Creff G., Brubach J.B., Roy P., Bonetti M., Ollivier J., Sakellariou D., Bellissent-Funel M.C. Competing coexisting phases in 2D water  
*Scientific Reports* **6**, 25938-1-25938-10 (2016)
- Peet J.R., Widdifield C.M., Apperley D.C., Hodgkinson P., Johnson M.R., Evans I.R.  $Na^+$  mobility in sodium strontium silicate fast ion conductors  
*Chemical Communications* **51**, 17163-17165 (2015)
- Racys D.T., Eastoe J., Norrby P.O., Grillo I., Rogers S.E., Lloyd-Jones G.C.  $Pd\eta^3-C_6H_9$  complexes of the Trost modular ligand: High nuclearity columnar aggregation controlled by concentration, solvent and counterion  
*Chemical Science* **6**, 5793-5801 (2015)

# PUBLICATIONS

---

## Theory

---

Gaspard J.P. Structure of covalently bonded materials: From the Peierls distortion to phase-change materials  
Comptes Rendus Physique **17**, 389-405 (2016)

Gerelli Y. *Aurore*: New software for neutron reflectivity data analysis  
Journal of Applied Crystallography **49**, 330-339 (2016)

Grigoriev P.D., Zimmer O., Grigoriev A.D., Ziman T.  
Neutrons on a surface of liquid helium  
Physical Review C **94**, 025504-1-025504-14 (2016)

Gvozdkova M.V., Ziman T., Zhitomirsky M.E. Helicity, anisotropies, and their competition in a multiferroic magnet: Insight from the phase diagram  
Physical Review B **94**, 020406-1-020406-14 (2016)

Hanot S., Lyonnard S., Mossa S. Sub-diffusion and population dynamics of water confined in soft environments  
Nanoscale **8**, 3314-3325 (2016)

Holzmann M., Clay R.C., Morales M.A., Tubman N.M., Ceperley D.M., Pierleoni C. Theory of finite size effects for electronic quantum Monte Carlo calculations of liquids and solids  
Physical Review B **94**, 035126-1-035126-16 (2016)

Korolkovas A. Simulating confined particles with a flat density profile  
Physical Review E **94**, 021302-1-021302-4 (2016)

Korolkovas A., Gutfreund P., Barrat J.L. Simulation of entangled polymer solutions  
Journal of Chemical Physics **145**, 124113-1-124113-11 (2016)

Lander L., Reynaud M., Carrasco J., Katcho N.A., Bellin C., Polian A., Baptiste B., Rousse G., Tarascon J.M. Unveiling the electrochemical mechanisms of  $\text{Li}_2\text{Fe}(\text{SO}_4)_2$  polymorphs by neutron diffraction and density functional theory calculations  
Physical Chemistry Chemical Physics **18**, 14509-14519 (2016)

Lepetit M.B. How to compute the magneto-electric tensor from ab-initio calculations?  
Theoretical Chemistry Accounts **135**, 91-1-91-5 (2016)

Mizuno H., Silbert L.E., Sperl M., Mossa S., Barrat J.L. Cutoff nonlinearities in the low-temperature vibrations of glasses and crystals  
Physical Review E **93**, 043314-1-043314-18 (2016)

Rieutort D., Moyne O., Cocco P., de Gaudemaris R., Bicoût D.J. Ranking occupational contexts associated with risk of non-Hodgkin lymphoma  
American Journal of Industrial Medicine **59**, 561-574 (2016)

Roosen-Runge F., Bicoût D.J., Barrat J.L. Analytical correlation functions for motion through diffusivity landscapes  
Journal of Chemical Physics **144**, 204109-1-204109-9 (2016)

Shen Y., Li Y.D., Wo H., Li Y., Shen S., Pan B., Wang Q., Walker H.C., Steffens P., Boehm M., Hao Y., Quintero-Castro D.L., Harriger L.W., Frontzek M.D., Hao L., Meng S., Zhang Q., Chen G., Zhao J. Evidence for a spinon Fermi surface in a triangular-lattice quantum-spin-liquid candidate  
Nature **540**, 559-562 (2016)

Swank C.M., Petukhov A.K., Golub R. Random walks with thermalizing collisions in bounded regions: Physical applications valid from the ballistic to diffusive regimes  
Physical Review A **93**, 062703-1-062703-15 (2016)

Villain J., Lavagna M., Bruno P. Jacques Friedel and the physics of metals and alloys  
Comptes Rendus Physique **17**, 276-290 (2016)

Xu Z., Gu B., Mori M., Ziman T., Maekawa S. What determines the sign of the spin Hall effects in Cu alloys doped with 5d elements?  
Journal of Magnetism and Magnetic Materials **400**, 184-187 (2016)

Zhernenkov M., Bolmatov D., Soloviov D., Zhernenkov K., Toperverg B.P., Cunsolo A., Bosak A., Cai Y.Q. Revealing the mechanism of passive transport in lipid bilayers via phonon-mediated nanometre-scale density fluctuations  
Nature Communications **7**, 11575-1-11575-10 (2016)

Zimmer O. Neutron conversion and cascaded cooling in paramagnetic systems for a high-flux source of very cold neutrons  
Physical Review C **93**, 035503-1-035503-18 (2016)

Niimi Y., Kimata M., Omori Y., Gu B., Ziman T., Maekawa S., Fert A., Otani Y. Strong suppression of the spin Hall effect in the spin glass state  
Physical Review Letters **115**, 196602-1-196602-5 (2015)

---

## Other

---

Chazette C., Berchotteau D. Valoriser les compétences du secouriste dans une installation nucléaire de base  
Archives des Maladies Professionnelles et de l'Environnement **77**, 489 (2016)

---

## Thesis

---

ILL16BO2010

Boffy R. Design of a new neutron delivery system for high flux source  
PhD Thesis: Institut Laue-Langevin, Grenoble, France – Universidad Politecnica de Madrid, Spain – Institut Polytechnique de Grenoble, France, 2016

ILL16GR2009

Grimaldo M. Global and internal diffusive dynamics of proteins in solution studied by neutron spectroscopy  
PhD thesis: Universität Tübingen, Germany – Institut Laue-Langevin, France, 2016

ILL16CR2006

Cronenberg G. Frequency measurements testing Newton's Gravity Law with the Rabi-qBounce experiment  
PhD Thesis: Technische Universität Wien, Austria, 2015

ILL16GH2002

Ghys L. Beta-delayed fission in proton-rich nuclei in the lead region  
PhD thesis: KU Leuven, Belgium, 2015

ILL16MA2003

Maire D. Développement d'une TPC pour les références en énergie et en fluence des champs neutroniques de basses énergies (de 8 keV à 5 MeV)  
PhD thesis: LPSC, Grenoble – Institut Laue-Langevin, Grenoble, France, 2015







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