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## Forschungsbereich Energie

Salomé, P.M.P.; Rodriguez Alvarez, H.; Sadewasser, S., *Incorporation of alkali metals in chalcogenide solar cells*, Solar Energy Mat Solar Cells, **143**, 9-20, (2015), 10.1016/j.solmat.2015.06.011

Pomaska, M.; Sáez-Araoz, R.; Steigert, A.; Fu, Y.; Hergert, F.; Lauermann, I.; Dittrich, T.; Lux-Steiner, M.-C.; Fischer, Ch.-H., *Influence of Cl and H<sub>2</sub>O in spray-ILGAR solutions on the voltage gain of Cu(In,Ga)(S,Se)<sub>2</sub> solar cells with In<sub>2</sub>S<sub>3</sub> buffer*, Sci. Rep., **132**, 303–310, (2015), 10.1016/j.solmat.2014.08.044

Durantini, J.; Belen Suarez, M.; Santo, M.; Durantini, E.; Dittrich, T.; Otero, L.; Gervaldo, M., *Photoinduced Charge Separation in Organic-Organic Heterojunctions Based on Porphyrin Electropolymers. Spectral and Time Dependent Surface Photovoltage Study*, J. Phys. Chem. C, **119**, 4044-4051, (2015), 10.1021/jp510432v

Hauschild, D.; Meyer, F.; Benkert, A.; Kreikemeyer-Lorenzo, D.; Pohlner, S.; Palm, J.; Blum, M.; Yang, W.; Wilks, R.G.; Bär, M.; Heske, C.; Weinhardt, L.; Reinert, F., *Annealing-Induced Effects on the Chemical Structure of the In<sub>2</sub>S<sub>3</sub>/CuIn(S,Se)(2) Thin-Film Solar Cell Interface*, J. Phys. Chem. C, **119**, 10412-10416, (2015), 10.1021/acs.jpcc.5b01622

Mildner, S.; Beleggia, M.; Mierwaldt, D.; Hansen, T.W.; Wagner, J.B.; Yazdi, S.; Kasama, T.; Ciston, J.; Zhu, Y.; Jooss, C., *Environmental TEM Study of Electron Beam Induced Electrochemistry of Pr<sub>0.64</sub>Ca<sub>0.36</sub>MnO<sub>3</sub> Catalysts for Oxygen Evolution*, J. Phys. Chem. C, **119**, 5301-5310, (2015), 10.1021/jp511628c

Kronawitter, C.X.; Lessio, M.; Zhao, P.; Riplinger, C.; Boscoboinik, A.; Starr, D.E.; Sutter, P.; Carter, E.A.; Koel, B.E., *Observation of Surface-Bound Negatively Charged Hydride and Hydroxide on GaP(110) in H<sub>2</sub>O Environments*, J. Phys. Chem. C, **119**, 17762-17772, (2015), 10.1021/acs.jpcc.5b05361

de Respini, M.; Joya, K.S.; de Groot, H.J.M.; D'Souza, F.; Smith, W.A.; van de Krol, R.; Dam, B., *Solar Water Splitting Combining a BiVO<sub>4</sub> Light Absorber with a Ru-Based Molecular Cocatalyst*, J. Phys. Chem. C, **119**, 7275-7281, (2015), 10.1021/acs.jpcc.5b00287

Rösicke, F.; Gluba, M.A.; Hinrichs, K.; Sun, G.; Nickel, N.H.; Rappich, J., *Quantifying the electrochemical maleimidation of large area graphene*, Electrochem. Commun., **57**, 52-55, (2015), 10.1016/j.elecom.2015.05.010

Lin, X.; Kavalakkatt, J.; Ennaoui, A.; Lux-Steiner, M.Ch., *Cu<sub>2</sub>ZnSn(S, Se)<sub>4</sub> thin film absorbers based on ZnS, SnS and Cu<sub>3</sub>SnS<sub>4</sub> nanoparticle inks: Enhanced solar cells performance by using a two-step annealing process*, Solar Energy Mat Solar Cells, **132**, 221-229, (2015), 10.1016/j.solmat.2014.08.024

Kühnapfel, S.; Gall, S.; Rech, B.; Amkreutz, D., *Towards monocrystalline silicon thin films grown on glass by liquid phase crystallization*, Solar Energy Mat Solar Cells, **140**, 86-91, (2015), 10.1016/j.solmat.2015.03.030

Dittrich, T.; Awino, C.; Prajongtat, P.; Rech, B.; Lux-Steiner, M.Ch., *Temperature Dependence of the Band Gap of CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> Stabilized with PMMA: A Modulated Surface Photovoltage Study*, J. Phys. Chem. C, **119**, 23968-23972, (2015), 10.1021/acs.jpcc.5b07132

- Frijnts, T.; Kühnapfel, S.; Ring, S.; Gabriel, O.; Calnan, S.; Haschke, J.; Stannowski, B.; Rech, B.; Schlatmann, R., *Analysis of photo-current potentials and losses in thin film crystalline silicon solar cells*, Solar Energy Mat Solar Cells, **143**, 457-466, (2015), 10.1016/j.solmat.2015.07.041
- Borgwardt, M.; Wilke, M.; Kampen, T.; Mähl, S.; Xiang, W.; Spiccia, L.; Lange, K.M.; Kiyani, I.Yu.; Aziz, E.F., *Injection Kinetics and Electronic Structure at the N719/TiO<sub>2</sub> Interface Studied by Means of Ultrafast XUV Photoemission Spectroscopy*, J. Phys. Chem. C, **119**, 9099-9107, (2015), 10.1021/acs.jpcc.5b01216
- Fejfar, A.; Hývl, M.; Vetushka, A.; Pikna, P.; Hájková, Z.; Ledinský, M.; Kocka, J.; Klapetek, P.; Marek, A.; Mašková, C.; Vyskocil, J.; Merkel, J.; Becker, C.; Itoh, T.; Misra, S.; Foldyna, M.; Yu, L.; Roca i Cabarrocas, P., *Correlative microscopy of radial junction nanowire solar cells using nanoindent position markers*, Solar Energy Mat Solar Cells, **135**, 106–112, (2015), 10.1016/j.solmat.2014.10.027
- Yin, G.; Brackmann, V.; Hoffmann, V.; Schmid, M., *Enhanced performance of ultra-thin Cu(In,Ga)Se<sub>2</sub> solar cells deposited at low process temperature*, Solar Energy Mat Solar Cells, **132**, 142-147, (2015), 10.1016/j.solmat.2014.08.045
- Töfflinger, J.A.; Laades, A.; Korte, L.; Leendertz, C.; Montanez, L. M.; Stürzebecher, U.; Sperlich, H-P.; Rech, B., *PECVD-AlO<sub>x</sub>/SiN<sub>x</sub> passivation stacks on wet chemically oxidized silicon: Constant voltage stress investigations of charge dynamics and interface defect states*, Solar Energy Mat Solar Cells, **135**, 49–56, (2015), 10.1016/j.solmat.2014.09.024
- Becker, C.; Preidel, V.; Amkreutz, D.; Haschke, J.; Rech, B., *Double-side textured liquid phase crystallized silicon thin-film solar cells on nanoimprinted glass*, Solar Energy Mat Solar Cells, **135**, 2–7, (2015), 10.1016/j.solmat.2014.08.031
- Wakefield, G.; Adair, M.; Gardener, M.; Greiner, D.; Kaufmann, C.A.; Moghal, J., *Mesoporous silica nanocomposite antireflective coating for Cu(In,Ga)Se<sub>2</sub> thin film solar cells*, Solar Energy Mat Solar Cells, **134**, 359–363, (2015), 10.1016/j.solmat.2014.12.022
- Sadjadi, S.; Jašo, S.; Godini, H.R.; Arndt, S.; Wollgarten, M.; Blume, R.; Görke, O.; Schomäcker, R.; Woznya, G.; Simon, U., *Feasibility study of the Mn-Na<sub>2</sub>WO<sub>4</sub>/SiO<sub>2</sub> catalytic system for the oxidative coupling of methane in a fluidized-bed reactor*, Catal. Sc. Techn., **5**, 942-952, (2015), 10.1039/c4cy00822g
- Jäckle, S.; Mattiza, M.; Liebhaber, M.; Brönstrup, G.; Rommel, M.; Lips, K.; Christiansen, S., *Junction formation and current transport mechanisms in hybrid n-Si/PEDOT:PSS solar cells*, Sci. Rep., **5**, 13008/1-12, (2015), 10.1038/srep13008
- Schmitt, S.; Sarau, G.; Christiansen, S., *Observation of strongly enhanced photoluminescence from inverted cone-shaped silicon nanostructures*, Sci. Rep., **5**, 17089/1-7, (2015), 10.1038/srep17089
- Varon, M.; Beleggia, M.; Jordanovic, J.; Schiötz, J.; Kasama, T.; Puentes, V.F.; Frandsen, C., *Longitudinal domain wall formation in elongated assemblies of ferromagnetic nanoparticles*, Sci. Rep., **5**, 14536/1-7, (2015), 10.1038/srep14536
- Tessarek, C.; Goldhahn, R.; Sarau, G.; Heilmann, M.; Christiansen, S., *Carrier-induced refractive index change observed by a whispering gallery mode shift in GaN microrods*, New J. Phys., **17**, 083047/1-8, (2015), 10.1088/1367-2630/17/8/083047
- Weizman, M.; Rhein, H.; Bhatti, K.; Duman, R.; Schultz, C.; Schüle, M.; Gabriel, O.; Ring, S.; Kirner, S.; Klimm, C.; Nittel, M.; Gall, S.; Rau, B.; Stannowski, B.; Schlatmann, R.; Fink, F., *Rear-side All-by-Laser*

- Point-contact Scheme for liquid-phase-crystallized silicon on glass solar cells*, Solar Energy Mat Solar Cells, **137**, 280-286, (2015), 10.1016/j.solmat.2015.02.003
- Furchner, A.; Sun, G.; Ketelsen, H.; Rappich, J.; Hinrichs, K., *Fast IR laser mapping ellipsometry for the study of functional organic thin films*, Anal., **140**, 1791-1797, (2015), 10.1039/c4an01853b
- Troyanchuk, I.O.; Bushinsky, M.; Volkov, N.; Sikolenko, V.; Efimova, E.A.; Ritter, C., *Role of Superexchange Interactions in the Ferromagnetism of Manganites*, J. Exp. Theor. Phys., **120**, 97-102, (2015), 10.1134/S1063776115010173
- Kermarrec, E.; Maharaj, D.D.; Gaudet, J.; Fritsch, K.; Pomaranski, D.; Kycia, J.B.; Qiu, Y.; Copley, J.R.D.; Couchman, M.M.P.; Morningstar, A.O.R.; Dabkowska, H.A.; Gaulin, B.D., *Gapped and gapless short-range-ordered magnetic states with (oneandhalf,1/2,1/2) wave vectors in the pyrochlore magnet  $Tb_{2+x}Ti_{2-x}O_{7+\delta}$* , Phys. Rev. B, **92**, 245114/1-7, (2015), 10.1103/PhysRevB.92.245114
- Gaulin, B.D.; Kermarrec, E.; Dahlberg, M.L.; Matthews, M.J.; Bert, F.; Zhang, J.; Mendels, P.; Fritsch, K.; Granroth, G.E.; Jiramongkolchai, P.; Amato, A.; Baines, C.; Cava, R.J.; Schiffer, P., *Quenched crystal-field disorder and magnetic liquid ground states in  $Tb_2Sn_{2-x}Ti_xO_7$* , Phys. Rev. B, **91**, 245141/1-6, (2015), 10.1103/PhysRevB.91.245141
- Sippel, P.; Szarko, J.M.; Hannappel, T.; Eichberger, R., *Ultrafast electron scattering from surface to bulk states at the  $InP(100)$  surface*, Phys. Rev. B, **91**, 115312/1-6, (2015), 10.1103/PhysRevB.91.115312
- Mainz, R.; Rodriguez Alvarez, H.; Klaus, M.; Thomas, D.; Lauche, J.; Weber, A.; Heinemann, M.D.; Brunken, S.; Greiner, D.; Kaufmann, C.A.; Unold, T.; Schock, H.-W.; Genzel, C., *Sudden stress relaxation in compound semiconductor thin films triggered by secondary phase segregation*, Phys. Rev. B, **92**, 155310/1-8, (2015), 10.1103/PhysRevB.92.155310
- Melskens, J.; Schnegg, A.; Baldansuren, A.; Lips, K.; Plokker, M.P.; Eijt, S.W.H.; Schut, H.; Fischer, M.; Zeman, M.; Smets, A.H.M., *Structural and electrical properties of metastable defects in hydrogenated amorphous silicon*, Phys. Rev. B, **91**, 245207/1-6, (2015), 10.1103/PhysRevB.91.245207
- Kumar, S.; Sarau, G.; Tessarek, C.; Göbelt, M.; Christiansen, S.; Singh, R., *Study of high quality spinel zinc gallate nanowires grown using CVD and ALD techniques*, Nanotechnology, **26**, 335603/1-9, (2015), 10.1088/0957-4484/26/33/335603
- Chang, C.S.T.; De Geuser, F.; Banhart, J., *In situ characterization of beta precipitation in an Al–Mg–Si alloy by anisotropic small-angle neutron scattering on a single crystal*, J. Appl. Crystallogr., **48**, 455-463, (2015), 10.1107/S1600576715002770
- Meixner, M.; Fuss, T.; Klaus, M.; Genzel, M.; Genzel, C., *Diffraction analysis of strongly inhomogeneous residual stress depth distributions by modification of the stress scanning method - II. Experimental implementation*, J. Appl. Crystallogr., **48**, 1462 - 1475, (2015), 10.1107/S160057671501585X
- Prajongtat, P.; Dittrich, T., *Precipitation of  $CH_3NH_3PbCl_3$  in  $CH_3NH_3PbI_3$  and Its Impact on Modulated Charge Separation*, J. Phys. Chem. C, **119**, 9926-9933, (2015), 10.1021/acs.jpcc.5b01667
- Meagher, A.; Whyte, D.; Banhart, J.; Hutzler, S.; Weaire, D.; Garcia-Moreno, F., *Slow crystallisation of a monodisperse foam stabilised against coarsening*, Soft Matter, **11**, 4710-4716, (2015), 10.1039/c4sm02412e

- Shalev, G.; Schmitt, S.W.; Embrechts, H.; Brönstrup, G.; Christiansen, S., *Enhanced photovoltaics inspired by the fovea centralis*, *Sci. Rep.*, **5**, 2436176, (2015), 10.1038/srep08570
- Bashouti, M.Y.; Garzuzi, C.A.; de la Mata, M.; Arbiol, J.; Ristein, J.; Haick, H.; Christiansen, S., *Role of Silicon Nanowire Diameter for Alkyl (Chain Lengths C1-C18) Passivation Efficiency through Si-C Bonds*, *Langmuir*, **31**, 2430-2437, (2015), 10.1021/la5047244
- Verma, A.; Singh, J.B.; Wanderka, N.; Chakravatty, J.K., *Delineating the roles of Cr and Mo during ordering transformations in stoichiometric Ni<sub>2</sub>(Cr<sub>1-x</sub>Mox) alloys*, *Acta Mater.*, **96**, 366-377, (2015), 10.1016/j.actamat.2015.06.022
- Liu, M.; Cizek, J.; Chang, C.S.T.; Banhart, J., *Early stages of solute clustering in an Al-Mg-Si alloy*, *Acta Mater.*, **91**, 355-364, (2015), 10.1016/j.actamat.2015.02.019
- Heim, K.; Vinod-Kumar, G.S.; Garcia-Moreno, F.; Rack, A.; Banhart, J., *Stabilisation of aluminium foams and films by the joint Action of dispersed particles and oxide films*, *Acta Mater.*, **99**, 313-324, (2015), 10.1016/j.actamat.2015.07.064
- Weinhardt, L.; Ertan, E.; Iannuzzi, M.; Weigand, M.; Fuchs, O.; Bär, M.; Blum, M.; Denlinger, J. D.; Yang, W.; Umbach, E.; Odelius, M.; Heske, C., *Probing hydrogen bonding orbitals: resonant inelastic soft X-ray scattering of aqueous NH<sub>3</sub>*, *Phys. Chem. Chem. Phys.*, **17**, 27145-27153, (2015), 10.1039/c5cp04898b
- Wojciechowski, K.; Gutberlet, T.; Raghuvanshi, V.S.; Terry, A., *Reverse hydrotropy by complex formation*, *Phys. Chem. Chem. Phys.*, **17**, 1106-1113, (2015), 10.1039/c4cp03835e
- Otero, M.; Dittrich, T.; Rappich, J.; Heredia, D.; Fungo, F.; Durantini, E.; Otero, L., *Photoinduced charge separation in organic-inorganic hybrid system: C60-containing electropolymer / CdSe-quantum dots*, *Electrochim. Acta*, **173**, 316-322, (2015), 10.1016/j.electacta.2015.05.029
- Miecznikowski, K.; Ramirez-Caro, A.; Fiechter, S.; Bogdanoff, P.; Szaniawska, E.; Wadas, A.; Kulesza, P.J., *Development of Hybrid Tungsten Oxide Photoanodes Admixed with Borododecatungstate-Polyanion Modified-Hematite: Enhancement of Water Oxidation upon Irradiation with Visible Light*, *Electrochim. Acta*, **179**, 379-385, (2015), 10.1016/j.electacta.2015.05.001
- Haschke, S.; Wu, Y.; Bashouti, M.; Christiansen, S.; Bachmann, J., *Engineering Nanoporous Iron(III) Oxide into an Effective Water Oxidation Electrode*, *ChemCatChem*, **7**, 2455-2459, (2015), 10.1002/cctc.201500623
- Drafz, M.H.H.; Franz, A.; Namyslo, J.C.; Kaufmann, D.E., *Chemistry and Spectroscopy of Renewable Materials, Part 1: Imaging the Penetration Depth of Covalent Wood Modification*, *ACS Sust. Chem. Eng.*, **3**, 566-568, (2015), 10.1021/sc5008048
- Meixner, M.; Fuss, T.; Klaus, M.; Genzel, C., *Diffraction analysis of strongly inhomogeneous residual stress depth distributions by modification of the stress scanning method - I. Theoretical concept*, *J. Appl. Crystallogr.*, **48**, 1451-1461, (2015), 10.1107/S160057671501448X
- Roland, S.; Neubert, S.; Albrecht, S.; Stannowski, B.; Seger, M.; Facchetti, A.; Schlatmann, R.; Rech, B.; Neher, D., *Hybrid Organic/Inorganic Thin-Film Multijunction Solar Cells Exceeding 11% Power Conversion Efficiency*, *Adv. Mater.*, **27**, 1262-1267, (2015), 10.1002/adma.201404698
- Schmid, T.; Schäfer, N.; Levenco, S.; Rissom, T.; Abou-Ras, D., *Orientation-distribution mapping of polycrystalline materials by Raman microspectroscopy*, *Sci. Rep.*, **5**, 18410/1-7, (2015), 10.1038/srep18410

- Dabirian, A.; van de Krol, R., *High-Temperature Ammonolysis of Thin Film Ta<sub>2</sub>O<sub>5</sub> Photoanodes: Evolution of Structural, Optical, and Photoelectrochemical Properties*, Chem. Mater., **27**, 708-715, (2015), 10.1021/cm503215p
- Göbelt, M.; Keding, R.; Schmitt, S.W.; Hoffmann, B.; Jäckle, S.; Latzel, M.; Radmilovic, V.V.; Radmilovic, V.R.; Spiecker, E.; Christiansen, S., *Encapsulation of silver nanowire networks by atomic layer deposition for indium-free transparent electrodes*, Nano Energy, **16**, 196-206, (2015), 10.1016/j.nanoen.2015.06.027
- Shalev, G.; Schmitt, S.W.; Brönstrup, G.; Christiansen, S., *Maximizing the ultimate absorption efficiency of vertically-aligned semiconductor nanowire arrays with wires of a low absorption cross-section*, Nano Energy, **12**, 801-809, (2015), 10.1016/j.nanoen.2015.01.048
- Gurieva, G.; Levchenko, S.; Kravtsov, V.Ch.; Nateprov, A.; Irran, E.; Huang, Y.-S.; Arushanov, E.; Schorr, S., *X-ray diffraction investigation on Cu<sub>2</sub>ZnSiSe<sub>4</sub> single and polycrystalline crystals*, Z. Kristallogr., **230**, 507-511, (2015), 10.1515/zkri-2014-1825
- Brendel, M.; Krause, S.; Steindamm, A.; Topczak, A.K.; Sundarraj, S.; Erk, P.; Höhla, S.; Fruehauf, N.; Koch, N.; Pflaum, J., *The Effect of Gradual Fluorination on the Properties of F<sub>n</sub>ZnPc Thin Films and F<sub>n</sub>ZnPc/C-60 Bilayer Photovoltaic Cells*, Adv. Funct. Mater., **25**, 1565-1573, (2015), 10.1002/adfm.201404434
- van Lare, C.; Yin, G.; Polman, A.; Schmid, M., *Light coupling and trapping in ultra-thin Cu(In,Ga)Se<sub>2</sub> solar cells using dielectric scattering patterns*, ACS Nano, **9**, 9603-9613, (2015), 10.1021/acsnano.5b04091
- Röder, R.; Sidiropoulos, T.P.H.; Tessarek, C.; Christiansen, S.; Oulton, R.F.; Ronning, C., *Ultrafast Dynamics of Lasing Semiconductor Nanowires*, Nano Lett., **15**, 4637-4643, (2015), 10.1021/acs.nanolett.5b01271
- Sippel, P.; Albrecht, W.; van der Bok, J.C.; Van Dijk-Moes, R.J.A.; Hannappel, T.; Eichberger, R.; Vanmaekelbergh, D., *Femtosecond Cooling of Hot Electrons in CdSe Quantum-Well Platelets*, Nano Lett., **15**, 2409-2416, (2015), 10.1021/nl504706w
- Neuschitzer, M.; Sanchez, Y.; Olar, T.; Thersleff, T.; Lopez-Marino, S.; Oliva, F.; Espindola-Rodriguez, M.; Xie, H.; Placidi, M.; Izquierdo-Roca, V.; Lauermann, I.; Leifer, K.; Perez-Rodriguez, A.; Saucedo, E., *Complex Surface Chemistry of Kesterites: Cu/Zn Reordering after Low Temperature Postdeposition Annealing and Its Role in High Performance Devices*, Chem. Mater., **27**, 5279-5287, (2015), 10.1021/acs.chemmater.5b01473
- Larramona, G.; Levchenko, S.; Bourdais, S.; Jacob, A.; Chone, C.; Delatouche, B.; Moisan, C.; Just, J.; Unold, T.; Dennler, G., *Fine-Tuning the Sn Content in CZTSSe Thin Films to Achieve 10.8% Solar Cell Efficiency from Spray-Deposited Water-Ethanol-Based Colloidal Inks*, Adv. Energy Mater., **5**, 1501404/1-10, (2015), 10.1002/aenm.201501404
- Khan, M.; Xiao, J.; Zhou, F.; Yablonskikh, M.; MacFarlane, D.R.; Spiccia, L.; Aziz, E.F., *On the Origin of the Improvement of Electrodeposited MnOx Films in Water Oxidation Catalysis Induced by Heat Treatment*, ChemSusChem, **8**, 1980-1985, (2015), 10.1002/cssc.201500330
- Liu, J.; Wang, H.; Chen, Z.P.; Moehwald, H.; Fiechter, S.; van de Krol, R.; Wen, L.; Jiang, L.; Antonietti, M., *Microcontact-Printing-Assisted Access of Graphitic Carbon Nitride Films with Favorable Textures toward Photoelectrochemical Application*, Adv. Mater., **27**, 712-718, (2015), 10.1002/adma.201404543

- Akhtar, W.; Schnegg, A.; Veber, S.; Meier, C.; Fehr, M.; Lips, K., *CW and pulsed electrically detected magnetic resonance spectroscopy at 263 GHz/12 T on operating amorphous silicon solar cells*, J. Magn. Reson., **257**, 94-101, (2015), 10.1016/j.jmr.2015.05.012
- Katz, I.; Fehr, M.; Schnegg, A.; Lips, K.; Blank, A., *High resolution in-operando microimaging of solar cells with pulsed electrically-detected magnetic resonance*, J. Magn. Reson., **251**, 26-35, (2015), 10.1016/j.jmr.2014.11.008
- Zhou, X.; Liu, R.; Sun, K.; Friedrich, D.; McDowell, M.T.; Yang, F.; Omelchenko, S.T.; Saadi, F.H.; Nielander, A.C.; Yalamanchili, S.; Papadantonakis, K.M.; Brunschwig, B.S.; Lewis, N.S., *Interface engineering of the photoelectrochemical performance of Ni-oxide-coated n-Si photoanodes by atomic-layer deposition of ultrathin films of cobalt oxide*, En. Envir. Science, **8**, 2644-2649, (2015), 10.1039/c5ee01687h
- Schulze, T.F.; Schmidt, T., *Photochemical upconversion: present status and prospects for its application to solar energy conversion*, En. Envir. Science, **8**, 103-125, (2015), 10.1039/C4EE02481H
- Ghani, F.; Opitz, A.; Pingel, P.; Heimel, G.; Salzmann, I.; Frisch, J.; Neher, D.; Tsami, A.; Scherf, U.; Koch, N., *Charge Transfer in and Conductivity of Molecularly Doped Thiophene-Based Copolymers*, J. Poly. Sci. B, **53**, 58-63, (2015), 10.1002/polb.23631
- Capaccioni, F.; Coradini, A.; Filacchione, G.; Erard, S.; Arnold, G.; Drossart, P.; De Sanctis, M. C.; Bockelee-Morvan, D.; Capria, M. T.; Tosi, F.; Leyrat, C.; Schmitt, B.; Quirico, E.; Cerroni, P.; Mennella, V.; Raponi, A.; Ciarniello, M.; McCord, T.; Moroz, L.; Palomba, E.; Ammannito, E.; Barucci, M. A.; Bellucci, G.; Benkhoff, J.; Bibring, J. P.; Blanco, A.; Blecka, M.; Carlson, R.; Carsenty, U.; Colangeli, L.; Combes, M.; Combi, M.; Crovisier, J.; Encrenaz, T.; Federico, C.; Fink, U.; Fonti, S.; Ip, W. H.; Irwin, P.; Jaumann, R.; Kuehrt, E.; Langevin, Y.; Magni, G.; Mottola, S.; Orofino, V.; Palumbo, P.; Piccioni, G.; Schade, U.; Taylor, F.; Tiphene, D.; Tozzi, G. P.; Beck, P.; Biver, N.; Bonal, L.; Combe, J. -Ph.; Despan, D.; Flamini, E.; Fornasier, S.; Frigeri, A.; Grassi, D.; Gudipati, M.; Longobardo, A.; Markus, K.; Merlin, F.; Orosei, R.; Rinaldi, G.; Stephan, K.; Cartacci, M.; Cicchetti, A.; Giuppi, S.; Hello, Y.; Henry, F.; Jacquino, S.; Noschese, R.; Peter, G.; Politi, R.; Reess, J. M.; Semery, A., *The organic-rich surface of comet 67P/Churyumov-Gerasimenko as seen by VIRTIS/Rosetta*, Science, **347**, aaa0628/1-4, (2015), 10.1126/science.aaa0628
- Paul, A.K.; Sarapulova, A.; Adler, P.; Reehuis, M.; Kanungo, S.; Mikhailova, D.; Schnelle, W.; Hu, Z.; Kuo, C.; Siruguri, V.; Rayaprol, S.; Soo, Y.; Yan, B.; Felser, C.; Tjeng, L.H.; Jansen, M., *Magnetically Frustrated Double Perovskites: Synthesis, Structural Properties, and Magnetic Order of Sr2BOsO6 (B = Y, In, Sc)*, Z. Anorg. Allg. Chem., **641**, 197-205, (2015), 10.1002/zaac.201400590
- Einspahr, H.; Weiss, M.S.; Hunter, W.N., *Crystals on the cover 2015*, Acta Crystallogr. F, **71**, 1-2, (2015), 10.1107/S2053230X1402754X
- Vinod Kumar, G.S.; Garcia-Moreno, F.; Banhart, J.; Kennedy, A., *The stabilising effect of oxides in foamed aluminium alloy scrap*, Int. J. Mat. Res., **106**, 978-987, (2015), 10.3139/146.111255
- Azarpira, A.; Lublow, M.; Steigert, A.; Bogdanoff, P.; Greiner, D.; Kaufmann, C.A.; Krüger, M.; Gernert, U.; van de Krol, R.; Fischer, A.; Schedel-Niedrig, T., *Efficient and Stable TiO2 :Pt-Cu(In,Ga)Se2 Composite Photoelectrodes for Visible Light Driven Hydrogen Evolution*, Adv. Energy Mater., **5**, 1402148/1-9, (2015), 10.1002/aenm.201402148
- Supplie, O.; May, M.M.; Steinbach, G.; Romanyuk, O.; Grosse, F.; Nägelein, A.; Kleinschmidt, P.; Brückner, S.; Hannappel, T., *Time-resolved in situ spectroscopy during formation of the GaP/Si(100) heterointerface*, J. Phys. Chem. Lett., **6**, 464-469, (2015), 10.1021/jz502526e



Sallmann, M.; Kumar, S.; Chernev, P.; Nehrkorn, J.; Schnegg, A.; Kumar, D.; Dau, H.; Limberg, C.; de Visser, S.P., *Structure and mechanism leading to formation of the cysteine sulfinic acid product complex of a biomimetic cysteine dioxygenase model*, Chem. - a Eur. J., **21**, 7470–7479, (2015), 10.1002/chem.201500644

Bashouti, M.Y.; Manshina, A.; Povolotckaia, A.; Povolotskiy, A.; Kireev, P.; Yuriy, P.; Mackovic, M.; Spiecker, E.; Koshevoy, I.O.; Tunik, S.; Christiansen, S., *Direct Laser Writing of  $\mu$ -chips Based on Hybrid C-Au-Ag Nanoparticles for Express Analysis of Hazardous and Biological Substances*, Lab on a Chip, **15**, 1742-1747, (2015), 10.1039/c4lc01376j

Sadoughi, G.; Starr, D.E.; Handick, E.; Stranks, S.D.; Gorgoi, M.; Wilks, R.G.; Bär, M.; Snaith, H.J., *Observation and Mediation of the Presence of Metallic Lead in Organic-Inorganic Perovskite Films*, ACS Appl. Mater. Interfaces, **7**, 13440-13444, (2015), 10.1021/acsami.5b02237

Greil, S.M.; Rappich, J.; Korte, L.; Bastide, S., *In Situ PL and SPV Monitored Charge Carrier Injection During Metal Assisted Etching of Intrinsic  $\alpha$ -Si Layers on  $c$ -Si*, ACS Appl. Mater. Interfaces, **7**, 11654-11659, (2015), 10.1021/acsami.5b02922

Calnan, S.; Gabriel, O.; Rothert, I.; Werth, M.; Ring, S.; Stannowski, B.; Schlatmann, R., *Influence of Chemical Composition and Structure in Silicon Dielectric Materials on Passivation of Thin Crystalline Silicon on Glass*, ACS Appl. Mater. Interfaces, **7**, 19282–19294, (2015), 10.1021/acsami.5b05318

Bröker, S.; Kück, D.; Timmer, A.; Lauermann, I.; Ümsür, B.; Greiner, D.; Kaufmann, C.A.; Mönig, H., *Correlating the Local Defect-Level Density with the Macroscopic Composition and Energetics of Chalcopyrite Thin-Film Surfaces*, ACS Appl. Mater. Interfaces, **7**, 13062-13072, (2015), 10.1021/acsami.5b03260

Duncan, D.A.; Kephart, J.M.; Horsley, K.; Blum, M.; Mezher, M.; Weinhardt, L.; Haeming, M.; Wilks, R.G.; Hofmann, T.; Yang, W.; Bär, M.; Sampath, W.S.; Heske, C., *Characterization of Sulfur Bonding in CdS:O Buffer Layers for CdTe-based Thin-Film Solar Cells*, ACS Appl. Mater. Interfaces, **7**, 16382-16386, (2015), 10.1021/acsami.5b03503

Handick, E.; Reinhard, P.; Alsmeyer, J.-H.; Köhler, L.; Pianezzi, F.; Krause, S.; Gorgoi, M.; Ikenaga, E.; Koch, N.; Wilks, R.G.; Buecheler, S.; Tiwari, A.N.; Bär, M., *Potassium Postdeposition Treatment-Induced Band Gap Widening at Cu(In,Ga)Se<sub>2</sub> Surfaces – Reason for Performance Leap?*, ACS Appl. Mater. Interfaces, **7**, 27414-27420, (2015), 10.1021/acsami.5b09231

Assaud, L.; Schumacher, J.; Tafel, A.; Bochmann, S.; Christiansen, S.; Bochmann, J., *Systematic increase of electrocatalytic turnover at nanoporous platinum surfaces prepared by atomic layer deposition*, J. Mater. Chem. A, **0**, 8450-8458, (2015), 10.1039/c5ta00205b

de Respinis, M.; Fravventura, M.; Abdi, F.F.; Schreuders, H.; Savenije, T.J.; Smith, W.A.; Dam, B.; van de Krol, Roel, *Oxynitrogenography: Controlled Synthesis of Single-Phase Tantalum Oxynitride Photoabsorbers*, Chem. Mater., **27**, 7091-7099, (2015), 10.1021/acs.chemmater.5b02938

Bashouti, M.Y.; Yousefi, P.; Ristein, J.; Christiansen, S., *Electronic Properties of Si-Hx Vibrational Modes at Si Waveguide Interface*, J. Phys. Chem. Lett., **6**, 3988–3993, (2015), 10.1021/acs.jpcclett.5b01918

Kriisa, M.; Sáez-Araoz, R.; Fischer, C.H.; Köhler, T.; Kärber, E.; Fu, Y.; Hergert, F.; Lux-Steiner, M.Ch.; Krunk, M., *Study of Zn(O,S) Films grown by Aerosol Assisted Chemical Vapour Deposition and their Application as Buffer Layers in Cu(In,Ga)(S,Se)<sub>2</sub> Solar Cells*, Sol. Energy, **115**, 562–568, (2015), 10.1016/j.solener.2015.02.046

- Nehrkorn, J.; Schnegg, A.; Holldack, K.; Stoll, S., *General Magnetic Transition Dipole Moments for Electron Paramagnetic Resonance*, Phys. Rev. Lett., **114**, 010801/1-5, (2015), 10.1103/PhysRevLett.114.010801
- Merdes, S.; Ziem, F.; Lavrenko, T.; Walter, T.; Laueremann, I.; Klingsporn, M.; Schmidt, S.; Hergert, F.; Schlatmann, R., *Above 16% efficient sequentially grown Cu(In,Ga)(Se,S)<sub>2</sub>-based solar cells with atomic layer deposited Zn(O,S) buffers*, Progr. Photovolt., **23**, 1493-1500, (2015), 10.1002/pip.2579
- Reinhold, B.; Schmid, M.; Greiner, D.; Schuele, M.; Kieven, D.; Ennaoui, A.; Lux-Steiner, M.C., *Monolithically interconnected lamellar Cu(In,Ga)Se<sub>2</sub> micro solar cells under full white light concentration*, Progr. Photovolt., **23**, 1929-1939, (2015), 10.1002/pip.2611
- Schulte, J.; Harbauer, K.; Ellmer, K., *Toward efficient Cu(In,Ga)Se<sub>2</sub> solar cells prepared by reactive magnetron co-sputtering from metallic targets in an Ar:H<sub>2</sub>Se atmosphere*, Progr. Photovolt., **23**, 1793-1805, (2015), 10.1002/pip.2622
- Heinemann, M.D.; Efimova, V.; Klenk, R.; Hoepfner, B.; Wollgarten, M.; Unold, T.; Schock, H.-W.; Kaufmann, C., *Cu(In,Ga)Se<sub>2</sub> Superstrate Solar Cells: Prospects and Limitations*, Progr. Photovolt., **23**, 1228–1237, (2015), 10.1002/pip.2536
- Hages, C.J.; Levenco, S.; Miskin, C.K.; Alsmeyer, J.H.; Abou-Ras, D.; Wilks, R.G.; Bär, M.; Unold, T.; Agrawal, R., *Improved performance of Ge-alloyed CZTGeSSe thin-film solar cells through control of elemental losses*, Progr. Photovolt., **23**, 376–384, (2015), 10.1002/pip.2442
- Cojucaru-Miréidin, O.; Fu, Y.; Kosta, A.; Saez-Araoz, R.; Beyer, A.; Knaub, N.; Volz, K.; Fischer, C.-H.; Raabe, D., *Interface engineering and characterization at the atomic-scale of pure and mixed ion layer gas reaction buffer layers in chalcopyrite thin-film solar cells*, Progr. Photovolt., **23**, 705–716, (2015), 10.1002/pip.2484
- Teplin, C.W.; Grover, S.; Chitu, A.; Limanov, A.; Chahal, M.; Im, J.; Amkreutz, D.; Gall, S.; Yoon, H.P.; Lasalvia, V.; Stradins, P.; Jones, K.M.; Norman, A.G.; Young, D.L.; Branz, H.M.; Lee, B.G., *Comparison of thin epitaxial film silicon photovoltaics fabricated on monocrystalline and polycrystalline seed layers on glass*, Progr. Photovolt., **23**, 909–917, (2015), 10.1002/pip.2505
- Mainz, R.; Weber, A.; Rodriguez-Alvarez, H.; Levchenko, S.; Klaus, M.; Pistor, P.; Klenk, R.; Schock, H.-W., *Time-resolved investigation of Cu(In,Ga)Se<sub>2</sub> growth and Ga gradient formation during fast selenization of metallic precursors*, Progr. Photovolt., **23**, 1131–1143, (2015), 10.1002/pip.2531
- Witte, W.; Abou-Ras, D.; Albe, K.; Bauer, G.H.; Bertram, F.; Boit, C.; Brueggemann, R.; Christen, J.; Dietrich, J.; Eicke, A.; Hariskos, D.; Maiberg, M.; Mainz, R.; Meessen, M.; Mueller, M.; Neumann, O.; Orgis, T.; Paetel, S.; Pohl, J.; Rodriguez Alvarez, H.; Scheer, R.; Schock, H.-W.; Unold, T.; Weber, A.; Powalla, M., *Gallium gradients in Cu(In,Ga)Se<sub>2</sub> thin-film solar cells*, Progr. Photovolt., **23**, 717–733, (2015), 10.1002/pip.2485
- Lang, F.; Gluba, M.A.; Albrecht, S.; Rappich, J.; Korte, L.; Rech, B.; Nickel, N.H., *Perovskite Solar Cells with Large-Area CVD-Graphene for Tandem Solar Cells*, J. Phys. Chem. Lett., **6**, 2745-2750, (2015), 10.1021/acs.jpcclett.5b01177
- Muydinov, R.; Ruske, F.; Neubert, S.; Steigert, A.; Klaus, M.; Selve, S.; Köppel, G.; Szyszka, B., *Combination of nitrogen mediated crystallisation with post-deposition annealing - Towards ultra-thin ZnO:Al contacts*, Thin Solid Films, **589**, 750-754, (2015), 10.1016/j.tsf.2015.07.012

- Kahlenberg, V.; Brunello, E.; Hejny, C.; Krüger, H.; Schmidmair, D.; Tribus, M.; Töbrens, D., *Li<sub>2</sub>Ca<sub>2</sub>Si<sub>2</sub>O<sub>7</sub>: Structural, spectroscopic and computational studies on a sorosilicate*, J. Solid State Chem., **225**, 155-167, (2015), 10.1016/j.jssc.2014.12.009
- Daoud, H.M.; Manzoni, A.; Wanderka, N.; Glatzel, U., *High-Temperature Tensile Strength of Al<sub>10</sub>Co<sub>25</sub>Cr<sub>8</sub>Fe<sub>15</sub>Ni<sub>36</sub>Ti<sub>6</sub> Compositionally Complex Alloy (High-Entropy Alloy)*, JOM., **67**, 2271-2277, (2015), 10.1007/s11837-015-1484-7
- Garcia-Moreno, F.; Mukherjee, M.; Jimenez, C.; Banhart, J., *Pressure-induced foaming of metals*, JOM., **67**, 955-965, (2015), 10.1007/s11837-015-1331-x
- Daoud, H.M.; Manzoni, A.; Völkl, R.; Wanderka, N.; Glatzel, U., *Oxidation Behavior of Al<sub>8</sub>Co<sub>17</sub>Cr<sub>17</sub>Cu<sub>8</sub>Fe<sub>17</sub>Ni<sub>33</sub>, Al<sub>23</sub>Co<sub>15</sub>Cr<sub>23</sub>Cu<sub>8</sub>Fe<sub>15</sub>Ni<sub>15</sub>, and Al<sub>17</sub>Co<sub>17</sub>Cr<sub>17</sub>Cu<sub>17</sub>Fe<sub>17</sub>Ni<sub>17</sub> Compositionally Complex Alloys (High-Entropy Alloys) at Elevated Temperatures in Air*, Adv. Eng. Mater., **17**, 1134–1141, (2015), 10.1002/adem.201500179
- Kumar, S.; Tessarek, C.; Sarau, G.; Christiansen, S.; Singh, R., *Self-Catalytic Growth of beta-Ga<sub>2</sub>O<sub>3</sub> Nanostructures by Chemical Vapor Deposition*, Adv. Eng. Mater., **17**, 709–715, (2015), 10.1002/adem.201400289
- Scherg-Kurmes, H.; Körner, S.; Ring, S.; Klaus, M.; Korte, L.; Ruske, F.; Schlatmann, R.; Rech, B.; Szyszka, B., *High mobility In<sub>2</sub>O<sub>3</sub>:H as contact layer for a-Si:H/c-Si heterojunction and muc-Si:H thin film solar cells*, Thin Solid Films, **594**, 316-322, (2015), 10.1016/j.tsf.2015.03.022
- Muydinov, R.; Steigert, A.; Schönau, S.; Ruske, F.; Kraehnert, R.; Eckhardt, B.; Laueremann, I.; Szyszka, B., *Water-assisted nitrogen mediated crystallisation of ZnO films*, Thin Solid Films, **590**, 177-183, (2015), 10.1016/j.tsf.2015.07.034
- Schnohr, C.S.; Kämmer, H.; Steinbach, T.; Gnauck, M.; Rissom, T.; Kaufmann, C.A.; Stephan, C.; Schorr, S., *Composition-dependent nanostructure of Cu(In,Ga)Se<sub>2</sub> powders and thin films*, Thin Solid Films, **582**, 356-360, (2015), 10.1016/j.tsf.2014.10.078
- Liu, Y.; Fu, Y.; Dittrich, T.; Saez Araoz, R.; Schmid, M.; Hinrichs, V.; Lux-Steiner, M.Ch.; Fischer, C-H., *Phase transitions during formation of Ag nanoparticles on In<sub>2</sub>S<sub>3</sub> precursor layers*, Thin Solid Films, **590**, 54-59, (2015), 10.1016/j.tsf.2015.07.021
- Prokes, K.; Schulze, M.; Hartwig, S.; Schäfer, N.; Landsgesell, S.; Blum, C.G.F.; Abou-Ras, D.; Hacialihoglu, M.Y.; Ressouche, E.; Ouladdiaf, B.; Hess, C.; Büchner, B.; Wurmehl, S., *Structural Inhomogeneities in FeTe<sub>0.6</sub>Se<sub>0.4</sub>: Relation to Superconductivity*, J. Cryst. Growth, **432**, 95–104, (2015), 10.1016/j.jcrysgro.2015.09.014
- Calvet, W.; Ümsür, B.; Höpfner, B.; Laueremann, I.; Prietzel, K.; Kaufmann, C.A.; Unold, T.; Lux-Steiner, M.C., *Locally resolved investigation of wedged Cu(In,Ga)Se<sub>2</sub> films prepared by physical vapor deposition using hard X-ray photoelectron and X-ray fluorescence spectroscopy*, Thin Solid Films, **582**, 361-365, (2015), 10.1016/j.tsf.2014.11.067
- Heczko, O.; Vokoun, D.; Kopecky, V.; Beleggia, M., *Effect of Magnetostatic Interactions on Twin Boundary Motion in Ni-Mn-Ga Magnetic Shape Memory Alloy*, IEEE Magn. Letters, **6**, 1000204/1-4, (2015), 10.1109/LMAG.2015.2449252
- Schulte, J.; Harbauer, K.; Ellmer, K., *Reactive magnetron co-sputtering of Cu(In,Ga)Se<sub>2</sub> absorber layers by a 2-stage process: Role of substrate type and Na-doping*, Thin Solid Films, **582**, 95-99, (2015), 10.1016/j.tsf.2014.10.089

Merdes, S.; Steigert, A.; Ziem, F.; Lauer mann, I.; Klenk, R.; Hergert, F.; Kaufmann, C.A.; Schlatmann, R., *Influence of Cu(In,Ga)(Se,S)<sub>2</sub> surface treatments on the properties of 30 x 30 cm<sup>2</sup> large area modules with atomic layer deposited Zn(O,S) buffers*, *Thin Solid Films*, **574**, 28-31, (2015), 10.1016/j.tsf.2014.11.049

Kühnapfel, S.; Nickel, N.H.; Gall, S.; Klaus, M.; Genzel, C.; Rech, B.; Amkreutz, D., *Preferential {100} grain orientation in 10 micrometer-thick laser crystallized multicrystalline silicon on glass*, *Thin Solid Films*, **576**, 68-74, (2015), 10.1016/j.tsf.2015.01.006

Ümsür, B.; Calvet, W.; Höpfner, B.; Steigert, A.; Lauer mann, I.; Gorgoi, M.; Prietzel, K.; Navirian, H.; Kaufmann, C.; Unold, T.; Lux-Steiner, M., *Investigation of Cu-poor and Cu-rich Cu(In,Ga)Se<sub>2</sub>/CdS interfaces using hard X-ray photoelectron spectroscopy*, *Thin Solid Films*, **582**, 366-370, (2015), 10.1016/j.tsf.2014.08.049

Bodnar, I.V.; Telesh, E.V.; Gurieva, G.; Schorr, S., *Transmittance Spectra of Cu<sub>2</sub>ZnSnS<sub>4</sub> Thin Films*, *J. of Elect. Mat.*, **44**, 3283-3287, (2015), 10.1007/s11664-015-3909-z

Abou-Ras, D.; Caballero, R.; Streeck, C.; Beckhoff, B.; In, J.-H.; Jeong, S., *Comprehensive Comparison of Various Techniques for the Analysis of Elemental Distributions in Thin Films: Additional Techniques*, *Micro. Microanal.*, **21**, 1644-1648, (2015), 10.1017/S1431927615015093

Levcenko, S.; Caballero, R.; Dermenji, L.; Telesh, E.V.; Victorov, I.A.; Merino, J.M.; Arushanov, E.; Leon, M.; Bodnar, I.V., *Preparation and optical characterization of Cu<sub>2</sub>ZnGeSe<sub>4</sub> thin films*, *Opt. Mat.*, **40**, 76-80, (2015), 10.1016/j.optmat.2014.11.050

Schmidmair, D.; Kahlenberg, V.; Többens, D.M.; Schottenberger, H.; De Wit, J.; Griesser, U.J., *Temperature- and moisture-dependent powder X-ray diffraction studies of kanemite (NaSi<sub>2</sub>O<sub>4</sub>(OH) x 3H<sub>2</sub>O)*, *Min. Mag.*, **79**, 103-120, (2015), 10.1180/minmag.2015.079.1.09

Höpfner, B.; Steigert, A.; Lauer mann, I.; Lux-Steiner, M.Ch., *Transparent back contacts for chalcopyrites: Temperature dependency of Cu diffusion into i-ZnO substrates*, *EPL*, **109**, 28004/p1-p5, (2015), 10.1209/0295-5075/109/28004

Kumar, A.; Latzel, M.; Christiansen, S.; Kumar, V.; Singh, R., *Effect of rapid thermal annealing on barrier height and 1/f noise of Ni/GaN Schottky barrier diodes*, *New J. Phys.*, **107**, 093502/1-5, (2015), 10.1063/1.4929829

Calnan, S.; Riedel, W.; Gledhill, S.; Stannowski, B.; Lux-Steiner, M.Ch.; Schlatmann, R., *Comparison of the influence of boron and aluminium doping on the material properties of electrochemically deposited ZnO films*, *Thin Solid Films*, **594**, 215-224, (2015), 10.1016/j.tsf.2015.05.051

Kaigawa, R.; Nakano, S.; Gerhardt, P.; Klenk, R., *Wide-band-gap Cu(In,Ga)S<sub>2</sub> solar cells with the junction prepared on the rear surface of the three-stage Cu-deficient absorber films*, *Jap. J. Appl. Phys.*, **54**, 08KC11/1-5, (2015), 10.7567/JJAP.54.08KC11

Bashouti, M.Y.; Resch, S.; Ristein, J.; Mackovic, M.; Spiecker, E.; Waldvogel, S.R.; Christiansen, S., *Functionalization of Silver Nanowires Surface using Ag-C Bonds in a Sequential Reductive Method*, *Adv. Mater. Interfaces*, **7**, 21657 - 21661, (2015), 10.1021/acsami.5b06830

Schunk, G.; Vogl, U.; Strekalov, D.V.; Förtsch, M.; Sedlmeir, F.; Schwefel, H.G.L.; Göbelt, M.; Christiansen, S.; Leuchs, G.; Marquardt, C., *Interfacing transitions of different alkali atoms and telecom bands using one narrowband photon pair source*, *Opt.*, **2**, 773-778, (2015), 10.1364/OPTICA.2.000773

- Schmid, M.; Tsakanikas, S.; Mangalgi, G.; Andrae, P.; Song, M.; Yin, G.; Riedel, W.; Manley, P., *Nano-optical concept design for light management*, , 96260E/1-7, (2015), 10.1117/12.2191081
- Grzanna, J.; Lewerenz, H.-J., *Oscillations at the Si/electrolyte contact: Relation to Quantum Mechanics*, J. Phys. Conf., **574**, 012024/1-4, (2015), 10.1088/1742-6596/574/1/012024
- Sonntag, P.; Haschke, J.; Kühnapfel, S.; Gabriel, O.; Amkreutz, D.; Rech, B., *Properties of liquid phase crystallized interdigitated back-contact aolar cells on glass*, Energy Procedia, **77**, 487-492, (2015), 10.1016/j.egypro.2015.07.069
- Mazzarella, L.; Kirner, S.; Gabriel, O.; Korte, L.; Stannowski, B.; Rech, B.; Schlatmann, R., *Nanocrystalline silicon oxide emitters for silicon hetero junction solar cells*, Energy Procedia, **77**, 304-310, (2015), 10.1016/j.egypro.2015.07.043
- Kirner, S.; Hartig, M.; Mazzarella, L.; Korte, L.; Frijnts, T.; Scherg-Kurmes, H.; Ring, S.; Stannowski, B.; Rech, B.; Schlatmann, R., *The Influence of ITO Dopant Density on J-V Characteristics of Silicon Heterojunction Solar Cells: Experiments and Simulations*, Energy Procedia, **77**, 725-732, (2015), 10.1016/j.egypro.2015.07.103
- Baranowski, L.; McLaughlin, K.; Zawadzki, P.; Lany, S.; Norman, A.; Hempel, H.; Eichberger, R.; Unold, T.; Toberer, E.; Zakutayev, A., *Effects of disorder on carrier transport in Cu<sub>2</sub>SnS<sub>3</sub>*, Phys. Rev. Appl., **4**, 044017/1-9, (2015), 10.1103/PhysRevApplied.4.044017
- Kelkar, H.; Wang, D.; Martín-Cano, D.; Hoffmann, B.; Christiansen, S.; Götzinger, S.; Sandoghar, V., *Sensing Nanoparticles with a Cantilever-Based Scannable Optical Cavity of Low Finesse and Sub-lambda 3 Volume*, Phys. Rev. Appl., **4**, 054010/1-11, (2015), 10.1103/PhysRevApplied.4.054010
- Ziegler, J.; Mews, M.; Kaufmann, K.; Schneider, T.; Sprafke, A.N.; Korte, L.; Wehrsporn, R.B., *Plasma-enhanced atomic-layer-deposited MoOx emitters for silicon heterojunction solar cells*, Appl. Phys. A, **120**, 811-816, (2015), 10.1007/s00339-015-9280-3
- Kirner, S.; Neubert, S.; Schultz, C.; Gabriel, O.; Stannowski, B.; Rech, B.; Schlatmann, R., *Quadruple-junction solar cells and modules based on amorphous and microcrystalline silicon with high stable efficiencies*, Jap. J. Appl. Phys., **54**, 08KB03/1-8, (2015), 10.7567/JJAP.54.08KB03
- Ring, S.; Neubert, S.; Schultz, C.; Schmidt, S.; Ruske, F.; Stannowski, B.; Fink, F.; Schlatmann, R., *Light trapping for a-Si:H/muc-Si:H tandem solar cells using direct pulsed laser interference texturing*, Phys. Status Solidi RRL, **9**, 36-40, (2015), 10.1002/pssr.201409404
- Kaigawa, R.; Hashimoto, S.; Irago, T.; Klenk, R., *Direct preparation of Cu<sub>2</sub>ZnSnSe<sub>4</sub> films by microwave irradiation and its dependence on the Sn/(Sn + Zn) ratio*, Jap. J. Appl. Phys., **54**, 08KC02/1-4, (2015), 10.7567/JJAP.54.08KC02
- Kaigawa, Ryuji; Shibata, Shotaro; Klenk, Reiner, *Cu<sub>2</sub>ZnSnSe<sub>4</sub> films directly synthesized by the reaction for 1 s from elemental metal precursor using a spot welding machine*, Jap. J. Appl. Phys., **54**, 08KC04/1-4, (2015), 10.7567/JJAP.54.08KC04
- Cussen, L.D.; Krist, T.; Lieutenant, K., *A new guide concept for a homogenous neutron beam without direct line of sight*, Nucl. Instrum. Methods Phys. Res. Sect. A, **777**, 7-14, (2015), 10.1016/j.nima.2014.12.003
- Krüger, H.; Többens, D.M.; Tropper, P.; Haefeker, U.; Kahlenberg, V.; Fuchs, M.R.; Olieric, V.; Troitzsch, U., *Single-crystal structure and Raman spectroscopy of synthetic titanite analog CaAlSiO<sub>4</sub>F*, Min. Petr., **190**, 631-641, (2015), 10.1007/s00710-015-0393-3

- Schmid, M.; Manley, P., *Nano- and microlenses as concepts for enhanced performance of solar cells*, J. Photonics Energy, **5**, 057003/1-11, (2015), 10.1117/1.JPE.5.057003
- Abou-Ras, D.; Schäfer, N.; Baldaz, N.; Brunken, S.; Boit, C., *Electron-beam-induced current measurements with applied bias provide insight to locally resolved acceptor concentrations at p-n junctions*, AIP Adv., **5**, 077191/1-7, (2015), 10.1063/1.4928097
- Assaud, L.; Bochmann, S.; Christiansen, S.; Bachmann, J., *A large electrochemical setup for the anodization of aluminum towards highly ordered arrays of cylindrical nanopores*, Rev. Sci. Instrum., **86**, 073902/1-7, (2015), 10.1063/1.4926746
- Ohm, W.; Riedel, W.; Askünger, Ü.; Heinemann, M.D.; Kaufmann, C.; Lopez Garzia, J.; Izquierdo, V.; Fontane, X.; Goislard, T.; Lux-Steiner, M.Ch.; Gledhill, S., *An overview of technological aspects of Cu(In,Ga)Se<sub>2</sub> solar cell architectures incorporating ZnO nanorod arrays*, Phys. Status Solidi A, **212**, 76–87, (2015), 10.1002/pssa.201431230
- Leendertz, C.; Chirvony, V.S.; García-Calzada, R.; Görög, L.; Töfflinger, J.A.; Korte, L.; Agouram, S.; Martínez-Pastor, J.; Petermann, N.; Wiggers, H.; Ulyashin, A.G., *Towards solar cell emitters based on colloidal Si nanocrystals*, Phys. Status Solidi A, **212**, 156-161, (2015), 10.1002/pssa.201431264
- Eisenhauer, D.; Pollakowski, B.; Baumann, J.; Preidel, V.; Amkreutz, D.; Rech, B.; Back, F.; Rudigier-Voigt, E.; Beckhoff, B.; Kanngießner, B.; Becker, C., *Grazing incidence X-ray fluorescence analysis of buried interfaces in periodically structured crystalline silicon thin-film solar cells*, Phys. Status Solidi A, **212**, 529-534, (2015), 10.1002/pssa.201400112
- Angermann, H.; Laades, A.; Kegel, J.; Klimm, C.; Stegemann, B., *Improvement of silicon solar cell substrates by wet-chemical oxidation studied by surface photovoltage measurements*, Solid State Phenom., **219**, 291-296, (2015), 10.4028/www.scientific.net/SSP.219.291
- Naikaew, A.; Prajongtat, P.; Lux-Steiner, M.Ch.; Arunchaiya, M.; Dittrich, T., *Role of phase composition for electronic states in CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub> prepared from CH<sub>3</sub>NH<sub>3</sub>I/PbCl<sub>2</sub> solution*, Appl. Phys. Lett., **106**, 232104/1-4, (2015), 10.1063/1.4922554
- Schmidmair, D.; Kahlenberg, V.; Perfler, L.; Tribus, M.; Hildebrandt, J.; Többens, D.M., *On the ambient pressure polymorph of K<sub>2</sub>Ca<sub>3</sub>Si<sub>3</sub>O<sub>10</sub> - An unusual mixed-anion silicate and its structural and spectroscopic characterization*, J. Solid State Chem., **228**, 90-98, (2015), 10.1016/j.jssc.2015.04.019
- Dimitrievska, M.; Gurieva, G.; Xie, H.; Carrete, A.; Cabot, A.; Saucedo, E.; Pérez-Rodríguez, A.; Schorr, S.; Izquierdo-Roca, V., *Raman scattering quantitative analysis of the anion chemical composition in kesterite Cu<sub>2</sub>ZnSn(S<sub>x</sub>Se<sub>1-x</sub>)<sub>4</sub> solid solutions*, J. Alloy. Compd., **628**, 464-470, (2015), 10.1016/j.jallcom.2014.12.175
- Kirner, S.; Mazzarella, L.; Korte, L.; Stannowski, B.; Rech, B.; Schlatmann, R., *Silicon Heterojunction Solar Cells with Nanocrystalline Silicon Oxide Emitter: Insights into Charge Carrier Transport*, IEEE J. Photovolt., **5**, 1601-1605, (2015), 10.1109/JPHOTOV.2015.2479461
- Amkreutz, D.; Barker, W.D.; Kühnapfel, S.; Sonntag, P.; Gabriel, O.; Gall, S.; Bloeck, U.; Schmidt, J.; Haschke, J.; Rech, B., *Liquid-Phase Crystallized Silicon Solar Cells on Glass: Increasing the Open-Circuit Voltage by Optimized Interlayers for n- and p-Type Absorbers*, IEEE J. Photovolt., **5**, 1757-1761, (2015), 10.1109/JPHOTOV.2015.2466434
- Heinemann, M.D.; Greiner, D.; Unold, T.; Klenk, R.; Schock, H.-W.; Schlatmann, R.; Kaufmann, C.A., *The Importance of Sodium Control in CIGSe Superstrate Solar Cells*, IEEE J. Photovolt., **5**, 378-581, (2015), 10.1109/JPHOTOV.2014.2360332

- Lin, X.; Ennaoui, A.; Levchenko, S.; Dittrich, T.; Kavalakkatt, J.; Kretzschmar, S.; Unold, T.; Lux-Steiner, M.Ch., *Defect study of Cu<sub>2</sub>ZnSn(S<sub>x</sub>Se<sub>1-x</sub>)<sub>4</sub> thin film absorbers using photoluminescence and modulated surface photovoltage spectroscopy*, Appl. Phys. Lett., **106**, 013903/1-5, (2015), 10.1063/1.4905311
- Pikna, P.; Skoromets, V.; Becker, C.; Fejfar, A.; Kužel, P., *Thin Film Polycrystalline Si Solar Cells Studied in Transient Regime by Optical Pump – Terahertz Probe Spectroscopy*, Appl. Phys. Lett., **107**, 233901/1-5, (2015), 10.1063/1.4937388
- Zellmeier, M.; Rappich, J.; Klaus, M.; Genzel, C.; Janietz, S.; Frisch, J.; Koch, N.; Nickel, N., *Side chain engineering of poly-thiophene and its impact on crystalline silicon based hybrid solar cells*, Appl. Phys. Lett., **107**, 203301/1-4, (2015), 10.1063/1.4935751
- Mews, M.; Liebhaber, M.; Rech, B.; Korte, L., *Valence band alignment and hole transport in amorphous/crystalline silicon heterojunction solar cells*, Appl. Phys. Lett., **107**, 013902/1-4, (2015), 10.1063/1.4926402
- Bikowski, A.; Rengachari, M.; Nie, M.; Wanderka, N.; Stender, P.; Schmitz, G.; Ellmer, K., *Research Update: Inhomogeneous aluminium dopant distribution in magnetron sputtered ZnO:Al thin films and its influence on their electrical properties*, APL Mater., **3**, 060701/1-12, (2015), 10.1063/1.4922152
- Yin, G.; Steigert, A.; Manley, P.; Klenk, R.; Schmid, M., *Enhanced absorption in tandem solar cells by applying hydrogenated In<sub>2</sub>O<sub>3</sub> as electrode*, Appl. Phys. Lett., **107**, 211901/1-5, (2015), 10.1063/1.4936328
- Supplie, O.; May, M.M.; Kleinschmidt, P.; Naegelein, A.; Paszuk, A.; Brückner, S.; Hannappel, T., *In situ controlled heteroepitaxy of single-domain GaP on As-modified Si(100)*, APL Mater., **3**, 126110/1-6, (2015), 10.1063/1.4939005
- Yu, S.; Frisch, J.; Opitz, A.; Cohen, E.; Bendikov, M.; Koch, N.; Salzmann, I., *Effect of molecular electrical doping on polyfuran based photovoltaic cells*, Appl. Phys. Lett., **106**, 203301/1-5, (2015), 10.1063/1.4921484
- Santala, M.K.; Raoux, S.; Campbell, G.H., *Kinetics of liquid-mediated crystallization of amorphous Ge from multi-frame dynamic transmission electron microscopy*, Appl. Phys. Lett., **107**, 252106/1-5, (2015), 10.1063/1.4938751
- Gor, G.Y.; Bertinetti, L.; Bernstein, N.; Hofmann, T.; Fratzl, P.; Huber, P., *Elastic response of mesoporous silicon to capillary pressures in the pores*, Appl. Phys. Lett., **106**, 261901/1-5, (2015), 10.1063/1.4923240
- Fang, H.; Caballero, B.; Akinoglu, E.M.; Papaioannou, E. Th.; García-Martín, A.; Cuevas, J.C.; Giersig, M.; Fumagalli, P., *Observation of a hole-size-dependent energy shift of the surface-plasmon resonance in Ni antidot thin films*, Appl. Phys. Lett., **106**, 153104/1-4, (2015), 10.1063/1.4917513
- Stange, H.; Brunken, S.; Hempel, H.; Rodriguez Alvarez, H.; Schäfer, N.; Greiner, D.; Scheu, A.; Lauche, J.; Kaufmann, C.A.; Unold, T.; Abou-Ras, D.; Mainz, R., *Effect of Na presence during CuInSe<sub>2</sub> growth on stacking fault annihilation and electronic properties*, Appl. Phys. Lett., **107**, 152103/1-5, (2015), 10.1063/1.4933305
- Paszuk, A.; Brueckner, S.; Steidl, M.; Zhao, W.; Dobrich, A.; Supplie, O.; Kleinschmidt, P.; Prost, W.; Hannappel, T., *Controlling the polarity of metalorganic vapor phase epitaxy-grown GaP on Si(111) for subsequent III-V nanowire growth*, Appl. Phys. Lett., **106**, 231601/1-4, (2015), 10.1063/1.4922275

Mazzarella, L.; Kirner, S.; Stannowski, B.; Korte, L.; Rech, B.; Schlatmann, R., *p-type microcrystalline silicon oxide emitter for silicon heterojunction solar cells allowing current densities above 40 mA/cm<sup>2</sup>*, Appl. Phys. Lett., **106**, 023902/1-5, (2015), 10.1063/1.4905906

Liebhaber, M.; Mews, M.; Schulze, T.F.; Korte, L.; Rech, B.; Lips, K., *Valence band offset in heterojunctions between crystalline silicon and amorphous silicon (sub)oxides ( $\alpha$ -SiO<sub>x</sub>:H, 0<x<2)*, Appl. Phys. Lett., **106**, 031601/1-5, (2015), 10.1063/1.4906195

Ligorio, G.; Nardi, M.V.; Christodoulou, C.; Koch, N., *Organic Semiconductor/Gold Interface Interactions: From Physisorption on Planar Surfaces to Chemical Reactions with Metal Nanoparticles*, ChemPhysChem, **16**, 2602-2608, (2015), 10.1002/cphc.201500337

Brus, V.V.; Maryanchuk, P.D.; Ilashchuk, M.I.; Rappich, J.; Babichuk, I.S.; Kovalyuk, Z.D., *Graphitic carbon/n-CdTe Schottky-type heterojunction solar cells prepared by electron-beam evaporation*, Sol. Energy, **112**, 78-84, (2015), 10.1016/j.solener.2014.11.023

Siah, S.C.; Brandt, R.E.; Lim, K.; Schelhas, L.T.; Jaramillo, R.; Heinemann, M.D.; Chua, D.; Wright, J.; Perkins, J.D.; Segre, C.U.; Gordon, R.G.; Toney, M.F.; Buonassisi, T., *Dopant activation in Sn-doped Ga<sub>2</sub>O<sub>3</sub> investigated by X-ray absorption spectroscopy*, Appl. Phys. Lett., **107**, 252103/1-5, (2015), 10.1063/1.4938123

Manzoni, A.; Daoud, H.M.; Voelkl, R.; Glatzel, U.; Wanderka, N., *Influence of W, Mo and Ti trace elements on the phase separation in Al<sub>8</sub>Co<sub>17</sub>Cr<sub>17</sub>Cu<sub>8</sub>Fe<sub>17</sub>Ni<sub>33</sub> based high entropy alloy*, Ultramicroscopy, **159**, 265-271, (2015), 10.1016/j.ultramic.2015.06.009

Steigert, A.; Lauermann, I.; Niesen, T.; Dalibor, T.; Palm, J.; Körner, S.; Scherg-Kurmes, H.; Muydinov, R.; Szyszka, B.; Klenk, R., *Sputtered Zn(O,S)/In<sub>2</sub>O<sub>3</sub>:H window layers for enhanced blue response of chalcopyrite solar cells*, Phys. Status Solidi RRL, **9**, 627-360, (2015), 10.1002/pssr.201510318

Kühnapfel, S.; Huang, J.; Teal, A.; Kampwerth, H.; Amkreutz, D.; Gall, S.; Varlamov, S., *Lifetime analysis of laser crystallized silicon films on glass*, J. Appl. Phys., **118**, 055304/1-5, (2015), 10.1063/1.4928156

Preidel, V.; Haschke, J.; Amkreutz, D.; Wollgarten, M.; Rech, B.; Becker, C., *Balance of optical, structural, and electrical properties of textured liquid phase crystallized Si solar cells*, J. Appl. Phys., **117**, 225306/1-7, (2015), 10.1063/1.4922138

Fengler, S.; Dittrich, T.; Rusu, M., *Electronic transitions and band offsets in C<sub>60</sub>:SubPc and C<sub>60</sub>:MgPc on MoO<sub>3</sub> studied by modulated surface photovoltage spectroscopy*, J. Appl. Phys., **118**, 035501/1-7, (2015), 10.1063/1.4926765

Borgwardt, M.; Sippel, P.; Eichberger, R.; Semtsiv, M.P.; Masselink, W.T.; Schwarzburg, K., *Excitation correlation photoluminescence in the presence of Shockley-Read-Hall recombination*, J. Appl. Phys., **117**, 215702/1-7, (2015), 10.1063/1.4921704

Larsen, J.K.; Li, S-Y.; Scragg, J.J.S.; Ren, Y.; Hägglund, C.; Heinemann, M.D.; Kretschmar, S.; Unold, T.; Platzer-Björkman, C., *Interference effects in photoluminescence spectra of Cu<sub>2</sub>ZnSnS<sub>4</sub> and Cu(In,Ga)Se<sub>2</sub> thin films*, J. Appl. Phys., **118**, 035307/1-9, (2015), 10.1063/1.4926857

Rapp, S.; Heinrich, G.; Wollgarten, M.; Huber, H.P.; Schmidt, M., *Physical mechanisms of SiN<sub>x</sub> layer structuring with ultrafast lasers by direct and confined laser ablation*, J. Appl. Phys., **117**, 105304/1-8, (2015), 10.1063/1.4914457



- Jordanovic, J.; Beleggia, M.; Schiötz, J.; Frandsen, C., *Simulations of super-structure domain walls in two dimensional assemblies of magnetic nanoparticles*, J. Appl. Phys., **118**, 043901/1-8, (2015), 10.1063/1.4926730
- Man, N.; Bikowski, A.; Ellmer, K., *Microstructure evolution of Al-doped zinc oxide and Sn-doped indium oxide deposited by radio-frequency magnetron sputtering: A comparison*, J. Appl. Phys., **117**, 155301/1-9, (2015), 10.1063/1.4916725
- Latzel, M.; Göbelt, M.; Brönstrup, G.; Venzago, C.; Schmitt, S.; Sarau, G.; Christiansen, S.H., *Modeling the dielectric function of degenerately doped ZnO:Al thin films grown by ALD using physical parameters*, Opt. Mat. Expr., **5**, 1979-1990, (2015), 10.1364/OME.5.001979
- Jia, L.; Harbauer, K.; Bogdanoff, P.; Ellmer, K.; Fiechter, S., *Sputtering Deposition of Ultra-thin alpha-Fe<sub>2</sub>O<sub>3</sub> Films for Solar Water Splitting*, J. Mater. Sci., **31**, 655-659, (2015), 10.1016/j.jmst.2014.10.007
- Akaike, K.; Koch, N.; Heimel, G.; Oehzelt, M., *The Impact of Disorder on the Energy Level Alignment at Molecular Donor-Acceptor Interfaces*, Adv. Mater. Interfaces, **2**, 1500232/1-6, (2015), 10.1002/admi.201500232
- Gabriel, O.; Kirner, S.; Klingsporn, M.; Friedrich, F.; Stannowski, B.; Schlatmann, R., *On the Plasma Chemistry During Plasma Enhanced Chemical Vapor Deposition of Microcrystalline Silicon Oxides*, PLASMA PROCESS POLYM, **12**, 82-91, (2015), 10.1002/ppap.201400114
- Paulisch, M.C.; Wanderka, N.; Haupt, M.; Selve, S.; Reimers, W., *The influence of heat Treatments on the microstructure and the mechanical properties in Commercial 7020 alloys*, Mater. Sci. Eng. A, **626**, 254-262, (2015), 10.1016/j.msea.2014.12.040
- Sun, G.; Zhang, X.; Rappich, J.; Hinrichs, K., *In situ infrared ellipsometric monitoring of the growth process of polyaniline thin films and doping with poly(4-styrenesulfonate)*, Appl. Surf. Sci., **344**, 181-187, (2015), 10.1016/j.apsusc.2015.03.083
- Gad, K.; Vössing, D.; Balamou, P.; Hiller, D.; Stegemann, B.; Angermann, H.; Kasemann, M., *Improved Si/SiO<sub>x</sub> interface passivation by ultra-thin tunneling oxide layers prepared by rapid thermal oxidation*, Appl. Surf. Sci., **353**, 1269-1276, (2015), 10.1016/j.apsusc.2015.07.060
- Karydas, A.G.; Streeck, C.; Bogdanovic Radovic, I.; Kaufmann, C.A.; Rissom, T.; Beckhoff, B.; Jaksic, M.; Barradas, N.P., *Ion beam analysis of Cu(In,Ga)Se<sub>2</sub> thin film solar cells*, Appl. Surf. Sci., **356**, 631-638, (2015), 10.1016/j.apsusc.2015.08.133
- Yin, G.; Steigert, A.; Andrä, P.; Goebelt, M.; Latzel, M.; Manley, P.; Lauermann, I.; Christiansen, S.; Schmid, M., *Integration of plasmonic Ag nanoparticles as back reflector in ultra-thin Cu(In,Ga)Se<sub>2</sub> solar cells*, Appl. Surf. Sci., **355**, 800-804, (2015), 10.1016/j.apsusc.2015.07.195
- Mu, R.; Steigert, A.; Lin, N.; Wilks, R.; Baer, M.; Zhang, Y., *The chemical structure of the ZnO/SiC heterointerface as revealed by electron spectroscopies*, J. Phys. D. Appl. Phys., **48**, 305304/1-7, (2015), 10.1088/0022-3727/48/30/305304
- Georgieva, J.; Valova, E.; Mintsouli, I.; Sotiropoulos, S.; Tatchev, D.; Arnyanov, S.; Hubin, A.; Dille, J.; Hoell, A.; Raghuvanshi, V.-S.; Karanasios, N.; Malet, L., *Pt(Ni) electrocatalysts for methanol oxidation prepared by galvanic replacement on TiO<sub>2</sub> and TiO<sub>2</sub>-C powder supports*, J. Electroanal. Chem., **754**, 65-74, (2015), 10.1016/j.jelechem.2015.07.001

Garcia-Moreno, F.; Siegel, B.; Heim, K.; Meagher, A.; Banhart, J., *Sub-mm sized bubbles injected into metallic melts*, Colloids Surf A: Physicochem Eng. Aspects, **473**, 60-67, (2015), 10.1016/j.colsurfa.2014.12.038

Meagher, A.; Garcia-Moreno, F.; Banhart, J.; Mughal, A.; Hutzler, S., *An experimental study of columnar crystals using monodisperse microbubbles*, Colloids Surf A: Physicochem Eng. Aspects, **473**, 55-59, (2015), 10.1016/j.colsurfa.2014.12.020

Lazaro, J.; Solórzano, E.; Rodríguez Pérez, M.A.; Garcia-Moreno, F., *Pore connectivity of aluminium foams: effect of production Parameters*, J. Mater. Sci., **50**, 3149-3163, (2015), 10.1007/s10853-015-8876-5

## Forschungsbereich Materie

- Landsgesell, S.; Prokes, K.; Colin, C.V.; Abou-Ras, D.; Schäfer, N., *Neutron Diffraction Studies: Structure and Physical Properties of La<sub>2</sub>O<sub>3</sub>-xFe<sub>2</sub>Se<sub>2</sub>*, *J. Supercond. Nov. Magn.*, **28**, 1111-1116, (2015), 10.1007/s10948-014-2760-4
- Troyanchuk, I.O.; Bushinsky, M.V.; Tereshko, N.V.; Dobryanskii, V.M.; Sikolenko, V.; Többens, D.M., *Magnetic properties of manganites doped with gallium, iron, and chromium ions*, *J. Exp. Theor. Phys.*, **120**, 838-843, (2015), 10.1134/S1063776115040160
- Troyanchuk, I.O.; Bushinsky, M.V.; Karpinsky, D.V.; Sikolenko, V.V.; Frontzek, M.; Efimov, V.V., *Magnetic ordering in Ln<sub>0.7</sub>Sr<sub>0.3</sub>Mn<sub>0.85</sub>Sb<sub>0.15</sub>O<sub>3</sub> (Ln = La, Nd, Sm, Eu)*, *Phys. Solid State*, **57**, 1128-1133, (2015), 10.1134/S1063783415060323
- Shmatko, V.A.; Yalovega, G.E.; Myasoedova, T.N.; Brzhezinskaya, M.M.; Shtekhin, I.E.; Petrov, V.V., *Influence of the surface morphology and structure on the gas-sorption properties of SiO<sub>2</sub>CuO<sub>x</sub> nanocomposite materials: X-ray spectroscopy investigations*, *Phys. Solid State*, **57**, 399-406, (2015), 10.1134/S1063783415020328
- Karpinsky, D.; Troyanchuk, I.; Silibin, M.; Gavrilov, S.; Bushinsky, M.; Sikolenko, V.; Sirenko, V.; Tebbens, D., *Crystal structure and magnetic exchange in La<sub>1-2x</sub>Sr<sub>2x</sub>Mn<sub>1-x</sub>Sb<sub>x</sub>O<sub>3</sub> (x=0.2)*, *Low Temp. Phys.*, **41**, 1006-1010, (2015), 10.1063/1.4937365
- Lagotzky, S.; Barday, R.; Jankowiak, A.; Kamps, T.; Klimm, C.; Knobloch, J.; Müller, G.; Senkovskiy, B.; Siewert, F., *Prevention of electron emission from molybdenum substrates for photocathodes by the native oxide layer*, *EPJ AP*, **70**, 21301/1-8, (2015), 10.1051/epjap/2015150167
- Troyanchuk, I.O.; Bushinsky, M.; Efimov, V.; Schorr, S.; Ritter, C.; Sikolenko, V., *Ferromagnetic ordering in La<sub>0.7</sub>Sr<sub>0.3</sub>Mn<sub>3+</sub>0.85Nb<sub>5+</sub>0.15O<sub>3</sub> manganite*, *Powder Diffr.*, **30**, S97-S100, (2015), 10.1017/S0885715615000032
- Hunter, W. N.; Weiss, M.S., *Macromolecular crystallography and what it can contribute to antiparasite drug discovery*, *Acta Crystallogr. F*, **71**, 483-484, (2015), 10.1107/S2053230X1500789X
- Kardjilov, N.; Hilger, A.; Manke, I.; Benfante, V.; Lo Celso, F.; Ruffo, I.; Tusa, S.; Triolo, R., *Neutron tomography in archaeology*, *Mater. Test.*, **57**, 324-328, (2015), 10.3139/120.110708
- Herppich, W.B.; Matsushima, U.; Graf, W.; Zabler, S.; Dawson, M.; Choinka, G.; Manke, I., *Synchrotron X-ray CT of rose peduncles - evaluation of tissue damage by radiation*, *Mater. Test.*, **57**, 59-63, (2015), 10.3139/120.110675
- Nestler, P.; Passvogel, M.; Ahrens, H.; Soltwedel, O.; Köhler, R.; Helm, C.A., *Branched Poly(ethylenimine) as Barrier Layer for Polyelectrolyte Diffusion in Multilayer Films*, *Macromolecules*, **48**, 8546-8556, (2015), 10.1021/acs.macromol.5b01065
- Bryson, J.F.J.; Nichols, C.I.O.; Herrero-Albillos, J.; Kronast, F.; Kasama, T.; Alimadadi, H.; van der Laan, G.; Nimmo, F.; Harrison, R.J., *Long-lived magnetism from solidification-driven convection on the pallasite parent body*, *Nat.*, **517**, 472-475, (2015), 10.1038/nature14114
- Wernet, Ph.; Kunnus, K.; Josefsson, I.; Rajkovic, I.; Quevedo, W.; Beye, M.; Schreck, S.; Grübel, S.; Scholz, M.; Nordlund, D.; Zhang, W.; Hartsock, R.W.; Schlotter, W.F.; Turner, J.J.; Kennedy, B.; Hennies, F.; de Groot, F.M.F.; Gaffney, K.J.; Techert, S.; Odelius, M.; Föhlisch, A., *Orbital-specific*

- mapping of the ligand exchange dynamics of Fe(CO)<sub>5</sub> in solution, *Nat.*, **520**, 78-81, (2015), 10.1038/nature14296
- Troyanchuk, I.; Bushinsky, M.; Karpinsky, D.; Tereshko, N.; Dobryansky, V.; Töbrens, D.M.; Sikolenko, V.; Efimov, V., *Magnetic interactions in La<sub>0.7</sub>Sr<sub>0.3</sub>Mn<sub>1-x</sub>Me<sub>x</sub>O<sub>3</sub> (Me = Ga, Fe, Cr) manganites*, *J. Magn. Magn. Mater.*, **394**, 212-216, (2015), 10.1016/j.jmmm.2015.06.046
- Öström, H.; Öberg, H.; Xin, H.; Larue, J.; Beye, M.; Dell'Angela, M.; Gladh, J.; Ng, M. L.; Sellberg, J.A.; Kaya, S.; Mercurio, G.; Nordlund, D.; Hantschmann, M.; Hieke, F.; Kühn, D.; Schlotter, W.F.; Dakovski, G.L.; Turner, J.J.; Minitti, M.P.; Mitra, A.; Moeller, S.P.; Föhlisch, A.; Wolf, M.; Wurth, W.; Persson, M.; Norskov, J.K.; Abild-Pedersen, F.; Ogasawara, H.; Pettersson, L.G.M.; Nilsson, A., *Probing the transition state region in catalytic CO oxidation on Ru*, *Science*, **347**, 978-982, (2015), 10.1126/science.1261747
- Bittencourt, C.; Rutar, M.; Umek, P.; Mrzel, A.; Vozel, K.; Arcon, D.; Henzler, K.; Krüger, P.; Guttmann, P., *Molecular nitrogen in N-doped TiO<sub>2</sub> nanoribbons*, *RSC Adv.*, **5**, 23350-23356, (2015), 10.1039/c4ra14410d
- Stribeck, A.; Jokari-Sheshdeh, F.; Poeselt, E.; Eling, B.; in't Veld, P.J.; Goerigk, G.J.; Hoell, A., *Machine Prepared Thermoplastic Polyurethanes of Varying Hard Segment Content: Morphology and Its Evolution in Tensile Tests*, *J. Poly. Sci. B*, **53**, 1213-1223, (2015), 10.1002/polb.23742
- Winter, B., *Scientists strike wet gold*, *Nat. Chem.*, **7**, 192-194, (2015), 10.1038/nchem.2189
- Gorgel, M.; Boggild, A.; Jensen Ulstrup, J.; Weiss, M.S.; Mueller, U.; Nissen, P.; Boesen, T., *Against the odds? De novo structure determination of a pilin with two cysteine residues by sulfur SAD*, *Acta Crystallogr. D*, **71**, 1095-1101, (2015), 10.1107/S1399004715003272
- Guttmann, P.; Bittencourt, C., *Overview of nanoscale NEXAFS performed with soft X-ray microscopes*, *Beilstein J. Nanotechnol.*, **6**, 595-604, (2015), 10.3762/bjnano.6.61
- Starr, D.E.; Sadoughi, G.; Handick, E.; Wilks, R.G.; Alsmeyer, J.H.; Köhler, L.; Gorgoi, M.; Snaith, H.J.; Baer, M., *Direct observation of an inhomogeneous chlorine distribution in CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3-x</sub>Cl<sub>x</sub> layers: surface depletion and interface enrichment*, *En. Envir. Science*, **8**, 1609-1615, (2015), 10.1039/c5ee00403a
- Büttner, F.; Moutafis, C.; Schneider, M.; Krüger, B.; Günther, C.M.; Geilhufe, J.; von Korff Schmising, C.; Mohanty, J.; Pfau, B.; Schaffert, S.; Bisig, A.; Foerster, M.; Schulz, T.; Vaz, C.A.F.; Franken, J.H.; Swagten, H.J.M.; Kläui, M.; Eisebitt, S., *Dynamics and inertia of skyrmionic spin structures*, *Nat. Phys.*, **11**, 225-228, (2015), 10.1038/NPHYS3234
- Varykhalov, A.; Sanchez-Barriga, J.; Marchenko, D.; Hlawenka, P.; Mandal, P.S.; Rader, O., *Tunable Fermi level and hedgehog spin texture in gapped graphene*, *Nat. Commun.*, **6**, 2085542, (2015), 10.1038/ncomms8610
- Guidi, T.; Gillon, B.; Mason, S.A.; Garlatti, E.; Carretta, S.; Santini, P.; Stunault, A.; Caciuffo, R.; van Slageren, J.; Klemke, B.; Cousson, A.; Timco, G.A.; Winpenny, R.E.P., *Direct observation of finite size effects in chains of antiferromagnetically coupled spins*, *Nat. Commun.*, **6**, 1885024, (2015), 10.1038/ncomms8061
- Schlesinger, R.; Bianchi, F.; Blumstengel, S.; Christodoulou, C.; Ovsyannikov, R.; Kobin, B.; Moudgil, K.; Barlow, S.; Hecht, S.; Marder, S.R.; Henneberger, F.; Koch, N., *Efficient light emission from inorganic and organic semiconductor hybrid structures by energy-level tuning*, *Nat. Commun.*, **6**, 1772895, (2015), 10.1038/ncomms7754

Méndez, H.; Heimel, G.; Winkler, S.; Frisch, J.; Opitz, A.; Sauer, K.; Wegner, B.; Oehzelt, M.; Röthel, C.; Duham, S.; Töbrens, D.; Koch, N.; Salzmann, I., *Charge-transfer crystallites as molecular electrical dopants*, Nat. Commun., **6**, 2432527, (2015), 10.1038/ncomms9560

Bruno, F.Y.; Grisolia, M.N.; Visani, C.; Valencia, S.; Varela, M.; Abrudan, R.; Tornos, J.; Rivera-Calzada, A.; Ünal, A.A.; Pennycook, S.J.; Sefrioui, Z.; Leon, C.; Villegas, J.E.; Santamaria, J.; Barthelemy, A.; Bibes, M., *Insight into spin transport in oxide heterostructures from interface-resolved magnetic mapping*, Nat. Commun., **6**, 1609268, (2015), 10.1038/ncomms7306

Streubel, R.; Kronast, F.; Fischer, P.; Parkinson, D.; Schmidt, O.G.; Makarov, D., *Retrieving spin textures on curved magnetic thin films with full-field soft X-ray microscopies*, Nat. Commun., **6**, 2086277, (2015), 10.1038/ncomms8612

Bauer, H.G.; Majchrak, P.; Kachel, T.; Back, C.H.; Woltersdorf, G., *Nonlinear spin-wave excitations at low magnetic bias fields*, Nat. Commun., **6**, 2328064, (2015), 10.1038/ncomms9274

Zielke, L.; Hutzenlaub, T.; Wheeler, D.R.; Chao, C.W.; Manke, I.; Hilger, A.; Paust, N.; Zengerle, R.; Thiele, S., *Three-Phase Multiscale Modeling of a LiCoO<sub>2</sub> Cathode: Combining the Advantages of FIB-SEM Imaging and X-Ray Tomography*, Adv. Energy Mater., **5**, 1401612/1-8, (2015), 10.1002/aenm.201401612

Wu, H.-C.; Chaika, A.N.; Huang, T.-W.; Syrlybekov, A.; Abid, M.; Aristov, V.Yu.; Molodtsova, O.V.; Babenkov, S.V.; Marchenko, D.; Sanchez-Barriga, J.; Mandal, P.S.; Varykhalov, A.Yu.; Niu, Y.; Murphy, B.E.; Krasnikov, S.A.; Luebben, O.; Wang, J.J.; Liu, H.; Yang, L.; Zhang, H.; Abid, M.; Janabi, Y.T.; Molotkov, S.N.; Chang, C.-R.; Shvets, I., *Transport Gap Opening and High On-Off Current Ratio in Trilayer Graphene with Self-Aligned Nanodomain Boundaries*, ACS Nano, **9**, 8967-8975, (2015), 10.1021/acsnano.5b02877

Bernien, M.; Naggert, H.; Arruda, L.M.; Kipgen, L.; Nickel, F.; Miguel, J.; Hermanns, C.F.; Krüger, A.; Krüger, D.; Schierle, E.; Weschke, E.; Tuczek, F.; Kuch, W., *Highly Efficient Thermal and Light-Induced Spin-State Switching of an Fe(II) Complex in Direct Contact with a Solid Surface*, ACS Nano, **9**, 8960-8966, (2015), 10.1021/acsnano.5b02840

Sluban, M.; Umek, P.; Jaglicic, Z.; Buh, J.; Smittek, P.; Mrzel, A.; Bittencourt, C.; Guttman, P.; Delville, M.-H.; Mihailovic, D.; Arcon, D., *Controlling Disorder and Superconductivity in Titanium Oxynitride Nanoribbons with Anion Exchange*, ACS Nano, **9**, 10133-10141, (2015), 10.1021/acsnano.5b03742

Schroeder, C.A.; Pluharova, E.; Seidel, E.; Schroeder, W.P.; Faubel, M.; Slavicek, P.; Winter, B.; Jungwirth, P.; Bradforth, S.E., *Oxidation Half-Reaction of Aqueous Nucleosides and Nucleotides via Photoelectron Spectroscopy Augmented by ab Initio Calculations*, J. Am. Chem. Soc., **137**, 201-209, (2015), 10.1021/ja508149e

Weatherup, R.S.; D'Arsie, L.; Cabrero-Vilatelá, A.; Caneva, S.; Blume, R.; Robertson, J.; Schloegl, R.; Hofmann, S., *Long-Term Passivation of Strongly Interacting Metals with Single-Layer Graphene*, J. Am. Chem. Soc., **137**, 14358-14366, (2015), 10.1021/jacs.5b08729

Pinkowicz, D.; Southerland, H.I.; Avendano, C.; Prosvirin, A.; Sanders, C.; Wernsdorfer, W.; Pedersen, K.S.; Dreiser, J.; Clerac, R.; Nehrkorn, J.; Simeoni, G.; Schnegg, A.; Holldack, K.; Dunbar, K.R., *Cyanide Single-Molecule Magnets Exhibiting Solvent Dependent Reversible On" and "Off" Exchange Bias Behavior*, J. Am. Chem. Soc., **137**, 14406-14422, (2015), 10.1021/jacs.5b09378

Zamudio-Bayer, V.; Hirsch, K.; Langenberg, A.; Niemeyer, M.; Vogel, M.; Lawicki, A.; Terasaki, A.; Lau, J.T.; Von Issendorff, B., *Maximum Spin Polarization in Chromium Dimer Cations as Demonstrated by*

- X-ray Magnetic Circular Dichroism Spectroscopy*, *Angew. Chem. Int. Ed.*, **54**, 4498-4501, (2015), 10.1002/anie.201411018
- Opitz, A.K.; Nenning, A.; Rameshan, C.; Rameshan, R.; Blume, R.; Hävecker, M.; Knop-Gericke, A.; Rupprechter, G.; Fleig, J.; Klötzer, B., *Enhancing Electrochemical Water-Splitting Kinetics by Polarization-Driven Formation of Near-Surface Iron(0): An In Situ XPS Study on Perovskite-Type Electrodes*, *Angew. Chem. Int. Ed.*, **54**, 2628-2632, (2015), 10.1002/anie.201409527
- Velasco-Velez, J.J.; Pfeifer, V.; Hävecker, M.; Weatherup, R.S.; Arrigo, R.; Chuang, C.-H.; Stotz, E.; Weinberg, G.; Salmeron, M.; Schlögl, R.; Knop-Gericke, A., *Photoelectron Spectroscopy at the Graphene-Liquid Interface Reveals the Electronic Structure of an Electrodeposited Cobalt/Graphene Electrocatalyst*, *Angew. Chem. Int. Ed.*, **54**, 14554–14558, (2015), 10.1002/anie.201506044
- Arrigo, R.; Schuster, M.E.; Xie, Z.; Yi, Y.; Wowsnick, G.; Sun, Li.L.; Hermann, K.E.; Friedrich, M.; Kast, P.; Hävecker, M.; Knop-Gericke, A.; Schloegl, R., *Nature of the N-Pd Interaction in Nitrogen-Doped Carbon Nanotube Catalysts*, *ACS Catal.*, **5**, 2740-2753, (2015), 10.1021/acscatal.5b00094
- Xiao, J.; Khan, M.; Singh, A.; Suljoti, E.; Spiccia, L.; Aziz, E.F., *Enhancing Catalytic Activity by Narrowing Local Energy Gaps—X-Ray Studies of a Manganese Water Oxidation Catalyst*, *ChemSusChem*, **8**, 872-877, (2015), 10.1002/cssc.201403219
- Hirsch, K.; Zamudio-Bayer, V.; Langenberg, A.; Niemeyer, M.; Langbehn, B.; Möller, T.; Terasaki, A.; von Issendorff, B.; Lau, J. T., *Magnetic Moments of Chromium-Doped Gold Clusters: The Anderson Impurity Model in Finite Systems*, *Phys. Rev. Lett.*, **114**, 087202/1-6, (2015), 10.1103/PhysRevLett.114.087202
- Rachel, S.; Laubach, M.; Reuther, J.; Thomale, R., *Quantum paramagnet in a pi flux triangular lattice Hubbard model*, *Phys. Rev. Lett.*, **114**, 167201/1-5, (2015), 10.1103/PhysRevLett.114.167201
- Xin, H.; LaRue, J.; Öberg, H.; Beye, M.; Dell'Angela, M.; Turner, J.J.; Gladh, J.; Ng, M.L.; Sellberg, J. A.; Kaya, S.; Mercurio, G.; Hieke, F.; Nordlund, D.; Schlotter, W. F.; Dakovski, G. L.; Minitti, M. P.; Föhlisch, A.; Wolf, M.; Wurth, W.; Ogasawara, H.; Norskov, J.K.; Öström, H.; Pettersson, L.G.M.; Nilsson, A.; Abild-Pedersen, E., *Strong Influence of Coadsorbate Interaction on CO Desorption Dynamics on Ru(0001) Probed by Ultrafast X-Ray Spectroscopy and Ab Initio Simulations*, *Phys. Rev. Lett.*, **114**, 156101/1-6, (2015), 10.1103/PhysRevLett.114.156101
- Maerten, L.; Bojahr, A.; Gohlke, M.; Roessle, M.; Bargheer, M., *Coupling of GHz Phonons to Ferroelastic Domain Walls in SrTiO<sub>3</sub>*, *Phys. Rev. Lett.*, **114**, 047401/1-5, (2015), 10.1103/PhysRevLett.114.047401
- Bojahr, A.; Gohlke, M.; Leitenberger, W.; Pudell, J.; Reinhardt, M.; von Reppert, A.; Roessle, M.; Sander, M.; Gaal, P.; Bargheer, M., *Second Harmonic Generation of Nanoscale Phonon Wave Packets*, *Phys. Rev. Lett.*, **115**, 195502/1-5, (2015), 10.1103/PhysRevLett.115.195502
- Cimino, R.; Baglin, V.; Schäfers, F., *Potential remedies against the high Synchrotron Radiation induced heat load for future highest energy proton circular colliders*, *Phys. Rev. Lett.*, **115**, 264804/1-5, (2015), 10.1103/PhysRevLett.115.264804
- Pietsch, A.; Hennies, F.; Miedema, P. S.; Kennedy, B.; Schlappa, J.; Schmitt, T.; Strocov, V.N.; Föhlisch, A., *Snapshots of the Fluctuating Hydrogen Bond Network in Liquid Water on the Sub-Femtosecond Timescale with Vibrational Resonant Inelastic x-ray Scattering*, *Phys. Rev. Lett.*, **114**, 088302/1-5, (2015), 10.1103/PhysRevLett.114.088302

Rubensson, J.-E.; Söderström, J.; Binggeli, C.; Grasjö, J.; Andersson, J.; Sathe, C.; Hennies, F.; Bisogni, V.; Huang, Y.; Olalde, P.; Schmitt, T.; Strocov, V. N.; Föhlisch, A.; Kennedy, B.; Pietzsch, A., *Rydberg-Resolved Resonant Inelastic Soft X-Ray Scattering: Dynamics at Core Ionization Thresholds*, Phys. Rev. Lett., **114**, 133001/1-5, (2015), 10.1103/PhysRevLett.114.133001

Kosub, T.; Kopte, M.; Radu, F.; Schmidt, O.G.; Makarov, D., *All-Electric Access to the Magnetic-Field-Invariant Magnetization of Antiferromagnets*, Phys. Rev. Lett., **115**, 097201/1-5, (2015), 10.1103/PhysRevLett.115.097201

Matsuda, T.; Partzsch, S.; Tsuyama, T.; Schierle, E.; Weschke, E.; Geck, J.; Saito, T.; Ishiwata, S.; Tokura, Y.; Wadati, H., *Observation of a Devil's Staircase in the Novel Spin-Valve System SrCo6O11*, Phys. Rev. Lett., **114**, 236403/1-5, (2015), 10.1103/PhysRevLett.114.236403

Laksmono, H.; McQueen, T.A.; Sellberg, J.A.; Loh, N.D.; Huang, C.; Schlesinger, D.; Sierra, R.G.; Hampton, C.Y.; Nordlund, D.; Beye, M.; Martin, A.V.; Barty, A.; Seibert, M.M.; Messerschmidt, M.; Williams, G.J.; Boutet, S.; Arnann-Winkel, K.; Loerting, T.; Pettersson, L.G.M.; Bogan, M.J.; Nilsson, A., *Anomalous Behavior of the Homogeneous Ice Nucleation Rate in No-Man's Land*, J. Phys. Chem. Lett., **6**, 2826-2832, (2015), 10.1021/acs.jpcllett.5b01164

Petit, T.; Yuzawa, H.; Nagasaka, M.; Yamanoi, R.; Osawa, E.; Kosugi, N.; Aziz, E.F., *Probing Interfacial Water on Nanodiamonds in Colloidal Dispersion*, J. Phys. Chem. Lett., **6**, 2909-2912, (2015), 10.1021/acs.jpcllett.5b00820

Mei, S.; Cao, J.; Lu, Y., *Controllable assembly of two types of metal nanoparticles onto block copolymer nanospheres with ordered spatial distribution*, J. Mater. Chem. A, **3**, 3382-3389, (2015), 10.1039/C4TA05827E

Jia, H.; Schmitz, D.; Ott, A.; Pich, A.; Lu, Y., *Cyclodextrin modified microgels as "nanoreactor" for the generation of Au nanoparticles with enhanced catalytic activity*, J. Mater. Chem. A, **3**, 6187-6195, (2015), 10.1039/c5ta00197h

Noechel, U.; Reddy, C.S.; Wang, K.; Cui, J.; Zizak, I.; Behl, M.; Kratz, K.; Lendlein, A., *Nanostructural changes in crystallizable controlling units determine the temperature-memory of polymers*, J. Mater. Chem. A, **3**, 8284-8293, (2015), 10.1039/c4ta06586g

Petit, T.; Pflüger, M.; Tolksdorf, D.; Xiao, J.; Aziz, E.F., *Valence holes observed in nanodiamonds dispersed in water*, Nanoscale, **7**, 2987-2991, (2015), 10.1039/c4nr06639a

Annanouch, F.E.; Haddi, Z.; Vallejos, S.; Umek, P.; Guttmann, P.; Bittencourt, C.; Llobet, E., *Aerosol-Assisted CVD-Grown WO3 Nanoneedles Decorated with Copper Oxide Nanoparticles for the Selective and Humidity-Resilient Detection of H2S*, ACS Appl. Mater. Interfaces, **7**, 6842-6851, (2015), 10.1021/acsami.5b00411

Timpel, M.; Nardi, M.V.; Ligorio, G.; Wegner, B.; Paetzel, M.; Kobin, B.; Hecht, S.; Koch, N., *Energy-Level Engineering at ZnO/Oligophenylene Interfaces with Phosphonate-Based Self-Assembled Monolayers*, ACS Appl. Mater. Interfaces, **7**, 11900-11907, (2015), 10.1021/acsami.5b01669

Christodoulou, C.; Giannakopoulos, A.; Ligorio, G.; Oehzelt, M.; Timpel, M.; Niederhausen, J.; Pasquali, L.; Giglia, A.; Parvez, K.; Müllen, M.; Beljonne, D.; Koch, N.; Nardi, M.V., *Tuning the Electronic Structure of Graphene by Molecular Dopants: Impact of the Substrate*, ACS Appl. Mater. Interfaces, **7**, 19134-19144, (2015), 10.1021/acsami.5b04777

Pohlmann, C.; Herbrig, K.; Gondek, L.; Kardjilov, N.; Hilger, A.; Figiel, H.; Banhart, J.; Kieback, B.; Manke, I.; Röntzsch, L., *In operando visualization of hydride-graphite composites during cyclic*

- hydrogenation by high-resolution neutron imaging*, J. Power Sourc., **277**, 360-369, (2015), 10.1016/j.jpowsour.2014.12.011
- Herbrig, K.; Pohlmann, C.; Gondek, L.; Figiel, H.; Kardjilov, N.; Hilger, A.; Manke, I.; Banhart, J.; Kieback, B.; Röntzsch, L., *Investigations of the structural stability of metal hydride Composites by in-situ neutron Imaging*, J. Power Sourc., **293**, 109-118, (2015), 10.1016/j.jpowsour.2015.05.039
- Arlt, T.; Schröder, A.; Heyne, K.; Riesemeier, H.; Wippermann, K.; Lehnert, W.; Manke, I., *In-operando investigation of the humidity condition and the swelling of a Nafion-based membrane in a DMFC with synchrotron X-ray imaging*, J. Power Sourc., **297**, 83-89, (2015), 10.1016/j.jpowsour.2015.07.064
- Arlt, T.; Lüke, W.; Kardjilov, N.; Banhart, J.; Lehnert, W.; Manke, I., *Monitoring the hydrogen distribution in poly(2,5-benzimidazole)-based (ABPBI) membranes in operating high-temperature polymer electrolyte fuel cells by using H-D contrast neutron Imaging*, J. Power Sourc., **299**, 125-129, (2015), 10.1016/j.jpowsour.2015.08.094
- Mascotto, S.; Kuzmicz, D.; Wallacher, D.; Siebenbürger, M.; Clemens, D.; Risse, S.; Yuan, J.; Antonietti, M.; Ballauff, M., *Poly(ionic liquid)-derived nanoporous carbon analyzed by combination of gas physisorption and small-angle neutron scattering*, Carbon, **82**, 425-435, (2015), 10.1016/j.carbon.2014.10.086
- Zhizhin, E.V.; Varykhalov, A.; Rybkin, A.G.; Rybkina, A.A.; Pudikov, D.A.; Marchenko, D.; Sanchez-Barriga, J.; Klimovskikh, I.I.; Vladimirov, G.G.; Rader, O.; Shikin, A.M., *Spin splitting of Dirac fermions in graphene on Ni intercalated with alloy of Bi and Au*, Carbon, **93**, 984-996, (2015), 10.1016/j.carbon.2015.05.104
- Isaac, A.; Barboza, V.; Ivan, F.; Roberto, J.; Andrey, L.; Hilger, A.; Manke, I., *Towards a deeper understanding of structural biomass recalcitrance using phase-contrast tomography*, Biotechn. for Biof., **8**, 40/1-7, (2015), 10.1186/s13068-015-0229-8
- Stevens, J.S.; Gainar, A.; Suljoti, E.; Xiao, J.; Golnak, R.; Aziz, E.F.; Schroeder, S.L.M., *Chemical Speciation and Bond Lengths of Organic Solutes by Core Level Spectroscopy: pH- and Solvent-Influence on p-Aminobenzoic Acid*, Chem. - a Eur. J., **21**, 7256-7263, (2015), 10.1002/chem.201405635
- Chen, K.; Lott, D.; Radu, F.; Choueikani, F.; Otero, E.; Ohresser, P., *Observation of an atomic exchange bias effect in DyCo4 film*, Sci. Rep., **5**, 10377/1-8, (2015), 10.1038/srep18377
- Strobl, M.; Sales, M.; Plomp, J.; Bowman, W.; Tremsin, A.; Kaestner, A.; Pappas, C.; Habicht, K., *Quantitative Neutron Darkfield Imaging through Spin-Echo Interferometry*, Sci. Rep., **5**, 16576/1-6, (2015), 10.1038/srep16576
- Benetti, A.R.; Jacobsen, J.; Lehnhoff, B.; Monsen, 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?*, Sci. Rep., **5**, 08972/1-8, (2015), 10.1038/srep08972
- Shiozawa, H.; Briones-Leon, A.; Domanov, O.; Zechner, G.; Sato, Y.; Suenaga, K.; Saito, T.; Eisterer, M.; Weschke, E.; Lang, W.; Peterlik, H.; Pichler, T., *Nickel clusters embedded in carbon nanotubes as high performance magnets*, Sci. Rep., **5**, 15033/1-9, (2015), 10.1038/srep15033
- Streubel, R.; Han, L.; Im, M.-Y.; Kronast, F.; Roessler, U.K.; Radu, F.; Abrudan, R.; Lin, G.; Schmidt, O.G.; Fischer, P.; Makarov, D., *Manipulating Topological States by Imprinting Non-Collinear Spin Textures*, Sci. Rep., **5**, 2515433, (2015), 10.1038/srep08787



Phillips, L.C.; Cherifi, R.O.; Ivanovskaya, V.; Zobelli, A.; Infante, I.C.; Jacquet, E.; Guiblin, N.; Uenal, A.A.; Kronast, F.; Dkhil, B.; Barthelemy, A.; Bibes, M.; Valencia, S., *Local electrical control of magnetic order and orientation by ferroelastic domain arrangements just above room temperature*, *Sci. Rep.*, **5**, 10026/1-8, (2015), 10.1038/srep10026

Sundermann, M.; Strigari, F.; Willers, T.; Winkler, H.; Prokofiev, A.; Ablett, J.M.; Rueff, J.-P.; Schmitz, D.; Weschke, E.; Moretti, M.; Al-Zein, A.; Tanaka, A.; Haverkort, M.W.; Kasinathan, D.; Tjeng, L.H.; Paschen, S.; Severing, A., *CeRu<sub>4</sub>Sn<sub>6</sub>: a strongly correlated material with nontrivial topology*, *Sci. Rep.*, **5**, 17937/1-9, (2015), 10.1038/srep17937

Zielke, L.; Barchasz, C.; Walus, S.; Alloin, F.; Leprêtre, J.-C.; Spetzl, A.; Schmidt, V.; Hilger, A.; Manke, I.; Banhart, J.; Zengerle, R.; Thiele, S., *Degradation of Li/S battery electrodes on 3D current collectors studied using x-ray phase contrast tomography*, *Sci. Rep.*, **5**, 10921 /1-12, (2015), 10.1038/srep10921

Henzler, K.; Heilemann, A.; Kneer, J.; Guttmann, P.; Jia, H.; Bartsch, E.; Lu, Y.; Palzer, S., *Investigation of reactions between trace gases and functional CuO nanospheres and octahedrons using NEXAFS-TXM imaging*, *Sci. Rep.*, **5**, 17729/1-12, (2015), 10.1038/srep17729

Bowler, M.W.; Mueller, U.; Weiss, M.S.; Sanchez-Weatherby, J.; Sorensen, T.L.-M.; Thunnissen, M.M.G.M.; Ursby, T.; Gobbo, A.; Russi, S.; Bowler, M.G.; Brockhauser, S.; Svensson, O.; Cipriani, F., *Automation and Experience of Controlled Crystal Dehydration: Results from the European Synchrotron HC1 Collaboration*, *Cryst. Growth Design*, **15**, 1043-1054, (2015), 10.1021/cg500890r

Roqueta, J.; Pomar, A.; Balcells, L.; Frontera, C.; Valencia, S.; Abrudan, R.; Bozzo, B.; Konstantinovic, Z.; Santiso, J.; Martinez, B., *Strain-Engineered Ferromagnetism in LaMnO<sub>3</sub> Thin Films*, *Cryst. Growth Design*, **15**, 5332-5337, (2015), 10.1021/acs.cgd.5b00884

Markötter, H.; Dittmann, K.; Haußmann, J.; Alink, R.; Gerteisen, D.; Riesemeier, H.; Scholta, J.; Banhart, J.; Manke, I., *Influence of local carbon fibre orientation on the water transport in the gas diffusion layer of polymer electrolyte membrane fuel cells*, *Electrochem. Commun.*, **51**, 133-136, (2015), 10.1016/j.elecom.2014.12.013

Hoeh, M.A.; Arlt, T.; Manke, I.; Banhart, J.; Fritz, D.L.; Maier, W.; Lehnert, W., *In operando synchrotron X-ray radiography studies of polymer electrolyte membrane water electrolyzers*, *Electrochem. Commun.*, **55**, 55-59, (2015), 10.1016/j.elecom.2015.03.009

Kasigkeit, C.; Hirsch, K.; Langenberg, A.; Möller, T.; Probst, J.; Rittmann, J.; Vogel, M.; Wittich, J.; Zamudio-Bayer, V.; von Issendorff, B.; Lau, J.T., *Higher Ionization Energies from Sequential Vacuum Ultraviolet Multiphoton Ionization of Size-Selected Silicon Cluster Cations*, *J. Phys. Chem. C*, **119**, 11148-11152, (2015), 10.1021/jp511928m

Adler, H.; Paszkiewicz, M.; Uihlein, J.; Polek, M.; Ovsyannikov, R.; Basova, T.V.; Chasse, T.; Peisert, H., *Interface Properties of VOPc on Ni(111) and Graphene/Ni(111): Orientation-Dependent Charge Transfer*, *J. Phys. Chem. C*, **119**, 8755-8762, (2015), 10.1021/acs.jpcc.5b01485

Bokarev, S.I.; Khan, M.; Abdel-Latif, M.K.; Xiao, J.; Hila, R.; Aziz, S.G.; Aziz, E.F.; Kühn, O., *Unraveling the Electronic Structure of Photocatalytic Manganese Complexes by L-Edge X-ray Spectroscopy*, *J. Phys. Chem. C*, **119**, 19192-19200, (2015), 10.1021/acs.jpcc.5b05169

Angioletti-Uberti, S.; Lu, Y.; Ballauff, M.; Dzubiella, J., *Theory of Solvation-Controlled Reactions in Stimuli-Responsive Nanoreactors*, *J. Phys. Chem. C*, **119**, 15723-15730, (2015), 10.1021/acs.jpcc.5b03830

Anger, F.; Glowatzki, H.; Franco-Cañellas, A.; Bürker, C.; Gerlach, A.; Scholz, R.; Sakamoto, Y.; Suzuki, T.; Koch, N.; Schreiber, F., *Interface dipole and growth mode of partially and fully fluorinated rubrene on Au(111) and Ag(111)*, J. Phys. Chem. C, **119**, 6769–6776, (2015), 10.1021/jp511822g

Graf, C.; Goroncy, C.; Stumpf, P.; Weschke, E.; Boeglin, C.; Ronneburg, H.; Rühl, E., *Local Magnetic and Electronic Structure of the Surface Region of Postsynthesis Oxidized Iron Oxide Nanoparticles for Magnetic Resonance Imaging*, J. Phys. Chem. C, **119**, 19404-19414, (2015), 10.1021/jp512023z

Pryadchenko, V.V.; Srabionyan, V.V.; Mikheykina, E.B.; Avakyan, L.A.; Murzin, V.Yu.; Zubavichus, Ya.V.; Zizak, I.; Guterman, V.E.; Bugaev, L.A., *Atomic Structure of Bimetallic Nanoparticles in PtAg/C Catalysts: Determination of Components Distribution in the Range from Disordered Alloys to “Core–Shell” Structures*, J. Phys. Chem. C, **119**, 3217-3227, (2015), 10.1021/jp512248y

Vogel, Ch.; Radtke, M.; Reinholz, U.; Schäfers, F.; Adam, Ch., *Chemical State of Chromium, Sulfur and Iron in Sewage Sludge Ash based Phosphorus Fertilizers*, ACS Sust. Chem. Eng., **3**, 2376–2380, (2015), 10.1021/acssuschemeng.5b00678

Blume, R.; Rosenthal, D.; Tessonier, J.-P.; Li, H.; Knop-Gericke, A.; Schlögl, R., *Characterizing Graphitic Carbon with X-ray Photoelectron Spectroscopy: A Step-by-Step Approach*, ChemCatChem, **7**, 2871-2881, (2015), 10.1002/cctc.201500344

Marion, J.; Trovaslet, M.; Martinez, N.; Masson, P.; Schweins, R.; Nachon, F.; Trapp, M.; Peters, J., *Pressure-induced molten globule state of human acetylcholinesterase: structural and dynamical changes monitored by neutron scattering*, Phys. Chem. Chem. Phys., **17**, 3157-3163, (2015), 10.1039/c4cp02992e

Miglierini, M.; Pavlovic, M.; Prochazka, V.; Hatala, T.; Schumacher, G.; Ruffer, R., *Evolution of structure and local magnetic fields during crystallization of HITPERM glassy alloys studied by in situ diffraction and nuclear forward scattering of synchrotron radiation*, Phys. Chem. Chem. Phys., **17**, 28239-28249, (2015), 10.1039/c5cp00245a

Gu, S.; Lu, Y.; Kaiser, J.; Albrecht, M.; Ballauff, M., *Kinetic analysis of the reduction of 4-nitrophenol catalyzed by Au/Pd nanoalloys immobilized in spherical polyelectrolyte brushes*, Phys. Chem. Chem. Phys., **17**, 28137-28143, (2015), 10.1039/C5CP00519A

Mitzscherling, S.; Cui, Q.; Koopman, W.; Bargheer, M., *Dielectric function of two-phase colloid-polymer nanocomposite*, Phys. Chem. Chem. Phys., **17**, 29465-29474, (2015), 10.1039/c5cp04326c

Kothe, A.; Wilke, M.; Moguilevski, A.; Engel, N.; Winter, B.; Kiyan, I.Yu.; Aziz, E.F., *Charge transfer to solvent dynamics in iodide aqueous solution studied at ionization threshold*, Phys. Chem. Chem. Phys., **17**, 1918-1924, (2015), 10.1039/C4CP02482F

Kothe, A.; Wilke, M.; Moguilevski, A.; Engel, N.; Winter, B.; Kiyan, I.Yu.; Aziz, E.F., *Reply to the ‘Comment on Charge Transfer to Solvent Dynamics in Iodide Aqueous Solution Studied at Ionization Threshold’*, Phys. Chem. Chem. Phys., **17**, 18195-18196, (2015), 10.1039/c5cp01804h

Golnak, R.; Xiao, J.; Atak, K.; Stevens, J.S.; Gainar, A.; Schroeder, S.L.M.; Aziz, E.F., *Intermolecular bonding of hemin in solution and in solid state probed by N K-edge X-ray spectroscopies*, Phys. Chem. Chem. Phys., **17**, 29000-29006, (2015), 10.1039/c5cp04529k

Atak, K.; Golnak, R.; Xiao, J.; Pflüger, M.; Brandenburg, T.; Winter, B.; Aziz, E.F., *Co(III) protoporphyrin IX chloride in solution: spin-state and metal coordination revealed from resonant inelastic X-ray scattering and electronic structure calculations*, Phys. Chem. Chem. Phys., **17**, 3409-3414, (2015), 10.1039/c4cp04703f

Bon, V.; Klein, N.; Senkovska, I.; Heerwig, A.; Getzschmann, J.; Wallacher, D.; Zizak, I.; Brzhezinskaya, M.; Müller, U.; Kaskel, S., *Exceptional adsorption-induced cluster and network deformation in the flexible metal–organic framework DUT-8(Ni) observed by in situ X-ray diffraction and EXAFS*, *Phys. Chem. Chem. Phys.*, **17**, 17471-17479, (2015), 10.1039/C5CP02180D

Lentz, M.; Klaus, M.; Beyerlein, I.J.; Zecevic, M.; Reimers, W.; Knezevic, M., *In Situ X-Ray Diffraction and Crystal Plasticity Modeling of the Deformation Behavior of Extruded Mg-Li-(Al) Alloys: An Uncommon Tension-Compression Asymmetry*, *Acta Mater.*, **86**, 254-268, (2015), 10.1016/j.actamat.2014.12.003

Parditka, B.; Toman, J.; Cserhati, C.; Janosfalvi, Zs.; Csik, A.; Zizak, I.; Feyerherm, R.; Schmitz, G.; Erdelyi, Z., *The earliest stage of phase growth in sharp concentration gradients*, *Acta Mater.*, **87**, 111-120, (2015), 10.1016/j.actamat.2014.11.048

Stoeckel, D.; Wallacher, D.; Zickler, G.; Thommes, M.; Smarsly, B., *Elucidating the Sorption Mechanism of Dibromomethane in Disordered Mesoporous Silica Adsorbents*, *Langmuir*, **31**, 6332-6342, (2015), 10.1021/acs.langmuir.5b00705

Geisel, K.; Henzler, K.; Guttman, P.; Richtering, W., *New Insight into Microgel-Stabilized Emulsions Using Transmission X-ray Microscopy: Nonuniform Deformation and Arrangement of Microgels at Liquid Interfaces*, *Langmuir*, **31**, 83-89, (2015), 10.1021/la503959n

Cao, J.; Mei, S.; Jia, H.; Ott, A.; Ballauff, M.; Lu, Y., *In Situ Synthesis of Catalytic Active Au Nanoparticles onto Gibbsite-Polydopamine Core-Shell Nanoplates*, *Langmuir*, **31**, 9483-9491, (2015), 10.1021/acs.langmuir.5b02279

Chu, F.; Heptner, N.; Lu, Y.; Siebenbürger, M.; Lindner, P.; Dzubiel, J.; Ballauff, M., *Colloidal Plastic Crystals in a Shear Field*, *Langmuir*, **31**, 5992-6000, (2015), 10.1021/la504932p

Schwörer, F.; Trapp, M.; Ballauff, M.; Dahint, R.; Steitz, R., *Surface-Active Lipid Linings under Shear Load - a Combined in-Situ Neutron Reflectivity and ATR-FTIR Study*, *Langmuir*, **31**, 11539-11548, (2015), 10.1021/acs.langmuir.5b01678

Kent, B.; Hauss, T.; Deme, B.; Cristiglio, V.; Darwish, T.; Hunt, T.; Bryant, G.; Garvey, C.J., *Direct Comparison of Disaccharide Interaction with Lipid Membranes at Reduced Hydrations*, *Langmuir*, **31**, 9134-9141, (2015), 10.1021/acs.langmuir.5b02127

Li, W.; Li, D.; Gao, X.; Gurlo, A.; Zander, S.; Jones, P.; Navrotsky, A.; Shen, Z.; Riedel, R.; Ionescu, E., *A study on the thermal conversion of scheelite-type ABO<sub>4</sub> into perovskite-type AB(O,N)<sub>3</sub>*, *Dalton Trans.*, **44**, 8238-8246, (2015), 10.1039/C5DT00711A

Könnecke, M.; Akeroyd, F.A.; Bernstein, H.J.; Brewster, A.S.; Campbell, S.I.; Clausen, B.; Cottrell, S.; Hoffmann, J.U.; Jemian, P.R.; Männicke, D.; Osborn, R.; Peterson, P.F.; Richter, T.; Suzuki, J.; Watts, B.; Wintersberger, E.; Wuttke, J., *The NeXus data format*, *J. Appl. Crystallogr.*, **48**, 301-305, (2015), 10.1107/S1600576714027575

Radulescu, A.; Goerigk, G.; Fetters, L.; Richter, D., *Morphology of crystalline-amorphous olefin block copolymers in solution characterized by small-angle neutron scattering and microscopy*, *J. Appl. Crystallogr.*, **48**, 1860-1869, (2015), 10.1107/S1600576715019226

Sales, M.; Plomp, J.; Habicht, K.; Strobl, M., *Investigating time-of-flight spin-echo modulation for small-angle neutron scattering through experiments and simulation*, *J. Appl. Crystallogr.*, **48**, 92–96, (2015), 10.1107/S1600576714025916

- Makowska, M.G.; Strobl, M.; Lauridsen, E.M.; Frandsen, H.I.; Tremsin, A.S.; Kardjilov, N.; Manke, I.; Kelleher, J.F.; Theil Kuhn, L., *Effect of stress on NiO reduction in solid oxide fuel cells: a new application of energy-resolved neutron imaging*, J. Appl. Crystallogr., **48**, 401-408, (2015), 10.1107/S1600576715002794
- Paul, A.; Teichert, A.; Krist, T.; Steitz, R., *Substrate-stress-induced magnetic and nonmagnetic structural correlations in Fe/Si multilayers*, J. Appl. Crystallogr., **48**, 1023-1033, (2015), 10.1107/S1600576715009942
- Treimer, W.; Feye-Treimer, U., *Corrigendum: Calculation of scattering patterns from phase-shifting objects using the Radon transform*, J. Appl. Crystallogr., **48**, 975-975, (2015), 10.1107/S1600576715006111
- Seibel, I.; Cordini, D.; Rehak, M.; Hager, A.; Riechardt, A.; Böker, A.; Heufelder, J.; Weber, A.; Gollrad, J.; Besserer, A.; Jousen, A.M., *Local Recurrence After Primary Proton Beam Therapy in Uveal Melanoma: Risk Factors, Retreatment Approaches, and Outcome*, Am. J. of Ophth., **160**, 628–636, (2015), 10.1016/j.ajo.2015.06.017
- Marchenko, D.; Varykhalov, A.; Sanchez-Barriga, J.; Rader, O.; Carbone, C.; Bihlmayer, G., *Highly spin-polarized Dirac fermions at the graphene/Co interface*, Phys. Rev. B, **91**, 235431/1-5, (2015), 10.1103/PhysRevB.91.235431
- Toft-Petersen, R.; Reehuis, M.; Jensen, T.B.S.; Andersen, N.H.; Li, J.; Le, M.D.; Laver, M.; Niedermayer, C.; Klemke, B.; Lefmann, K.; Vaknin, D., *Anomalous magnetic structure and spin dynamics in magnetoelectric LiFePO<sub>4</sub>*, Phys. Rev. B, **92**, 024404/1-9, (2015), 10.1103/PhysRevB.92.024404
- Reehuis, M.; Tovar, M.; Többens, D.M.; Pattison, P.; Hoser, A.; Lake, B., *Competing Jahn-Teller distortions and ferrimagnetic ordering in the geometrically frustrated system Ni<sub>1-x</sub>Cu<sub>x</sub>Cr<sub>2</sub>O<sub>4</sub>*, Phys. Rev. B, **91**, 024407/1-12, (2015), 10.1103/PhysRevB.91.024407
- Kuznetsov, M.V.; Yashina, L.V.; Sánchez-Barriga, J.; Ogorodnikov, I.I.; Vorokh, A.S.; Volykhov, A.A.; Koch, R.J.; Neudachina, V.S.; Tamm, M.E.; Siroтина, A.P.; Varykhalov, A.; Springholz, G.; Bauer, G.; Riley, J.D.; Rader, O., *Atomic structure of Bi<sub>2</sub>Se<sub>3</sub> and Bi<sub>2</sub>Te<sub>3</sub> (111) surfaces probed by photoelectron diffraction and holography*, Phys. Rev. B, **91**, 085402/1-7, (2015), 10.1103/PhysRevB.91.085402
- Anand, V.K.; Bera, A.K.; Xu, J.; Herrmannsdörfer, T.; Ritter, C.; Lake, B., *Observation of long-range magnetic ordering in pyrochlore Nd<sub>2</sub>Hf<sub>2</sub>O<sub>7</sub>: A neutron diffraction study*, Phys. Rev. B, **92**, 184418/1-10, (2015), 10.1103/PhysRevB.92.184418
- Xu, J.; Anand, V.K.; Bera, A.K.; Frontzek, M.; Abernathy, D.L.; Casati, N.; Siemensmeyer, K.; Lake, B., *Magnetic structure and crystal-field states of the pyrochlore antiferromagnet Nd<sub>2</sub>Zr<sub>2</sub>O<sub>7</sub>*, Phys. Rev. B, **92**, 224430/1-12, (2015), 10.1103/PhysRevB.92.224430
- Moras, P.; Bihlmayer, G.; Sheverdyaeva, P.M.; Mahatha, S.K.; Papagno, M.; Sanchez-Barriga, J.; Rader, O.; Novinec, L.; Gardonio, S.; Carbone, C., *Magnetization-dependent Rashba splitting of quantum well states at the Co/W interface*, Phys. Rev. B, **91**, 195410/1-8, (2015), 10.1103/PhysRevB.91.195410
- Hartwig, S.; Prokes, K.; Hansen, T.; Ritter, C.; Gerke, B.; Poettgen, R.; Mydosh, J.A.; Foerster, T., *Complex antiferromagnetic structure in the intermediate-valence intermetallic Ce<sub>2</sub>RuZn<sub>4</sub>*, Phys. Rev. B, **92**, 024420/1-8, (2015), 10.1103/PhysRevB.92.024420
- Wang, Z.; Schmidt, M.; Bera, A.K.; Islam, A.T.M.N.; Lake, B.; Loidl, A.; Deisenhofer, J., *Spinon confinement in the one-dimensional Ising-like antiferromagnet SrCo<sub>2</sub>V<sub>2</sub>O<sub>8</sub>*, Phys. Rev. B, **91**, 140404/1-4, (2015), 10.1103/PhysRevB.91.140404

- Bera, A.K.; Lake, B.; Islam, A.T.M.N.; Schneidewind, A., *Critical properties of coupled anisotropic Haldane spin chains in a magnetic field*, Phys. Rev. B, **92**, 060412/1-11, (2015), 10.1103/PhysRevB.92.060412
- Bergeard, N.; Schaffert, S.; Lopez-Flores, V.; Jaouen, N.; Geilhufe, J.; Günther, C.M.; Schneider, M.; Graves, C.; Wang, T.; Wu, B.; Scherz, A.; Baumier, C.; Delaunay, R.; Fortuna, F.; Tortarolo, M.; Tudu, B.; Krupin, O.; Minitti, M.P.; Robinson, J.; Schlotter, W.F.; Turner, J.J.; Lüning, J.; Eisebitt, S.; Boeglin, C., *Irreversible transformation of ferromagnetic ordered stripe domains in single-shot infrared-pump/resonant-x-ray-scattering-probe experiments*, Phys. Rev. B, **91**, 054416/1-8, (2015), 10.1103/PhysRevB.91.054416
- Buettner, F.; Krueger, B.; Eisebitt, S.; Kläui, M., *Accurate calculation of the transverse anisotropy of a magnetic domain wall in perpendicularly magnetized multilayers*, Phys. Rev. B, **92**, 054408/1-7, (2015), 10.1103/PhysRevB.92.054408
- Chen, K.; Lott, D.; Radu, F.; Choueikani, F.; Otero, E.; Ohresser, P., *Temperature-dependent magnetic properties of ferrimagnetic DyCo<sub>3</sub> alloy films*, Phys. Rev. B, **91**, 024409/1-8, (2015), 10.1103/PhysRevB.91.024409
- Skoulatos, M.; Toth, S.; Roessli, B.; Enderle, M.; Habicht, K.; Sheptyakov, D.; Cervellino, A.; Freeman, P. G.; Reehuis, M.; Stunault, A.; McIntyre, G. J.; Tung, L. D.; Marjerrison, C.; Pomjakushina, E.; Brown, P. J.; Khomskii, D. I.; Rueegg, Ch.; Kreyssig, A.; Goldman, A. I.; Goff, J. P., *Jahn-Teller versus quantum effects in the spin-orbital material LuVO<sub>3</sub>*, Phys. Rev. B, **91**, 161104/1-5, (2015), 10.1103/PhysRevB.91.161104
- Fritsch, K.; Ehlers, G.; Rule, K.C.; Habicht, K.; Ramazanoglu, M.; Dabkowska, H.A.; Gaulin, B.D., *Quantum phase transitions and decoupling of magnetic sublattices in the quasi-two-dimensional Ising magnet Co<sub>3</sub>V<sub>2</sub>O<sub>8</sub> in a transverse magnetic field*, Phys. Rev. B, **92**, 180404/1-5, (2015), 10.1103/PhysRevB.92.180404
- Hälg, M.; Hüvonen, 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*, Phys. Rev. B, **92**, 014412/1-7, (2015), 10.1103/PhysRevB.92.014412
- Wulf, E.; Huevonen, D.; Schoenemann, R.; Kuehne, H.; Herrmannsdoerfer, T.; Glavatsky, I.; Gerischer, S.; Kiefer, K.; Gvasaliya, S.; Zheludev, A., *Critical exponents and intrinsic broadening of the field-induced transition in NiCl<sub>2</sub> center dot 4SC(NH<sub>2</sub>)(<sub>2</sub>)*, Phys. Rev. B, **91**, 014406/1-7, (2015), 10.1103/PhysRevB.91.014406
- Cermak, P.; Prokes, K.; Ouladdiaf, B.; Boehm, M.; Kratochvilova, M.; Javorsky, P., *Magnetic structures in the magnetic phase diagram of Ho<sub>2</sub>RhIn<sub>8</sub>*, Phys. Rev. B, **91**, 144404/1-9, (2015), 10.1103/PhysRevB.91.144404
- Bera, A.K.; Lake, B.; Islam, A.T.M.N.; Janson, O.; Rosner, H.; Schneidewind, A.; Park, J.T.; Wheeler, E.; Zander, S., *Consequences of critical interchain couplings and anisotropy on a Haldane chain*, Phys. Rev. B, **91**, 144414/1-11, (2015), 10.1103/PhysRevB.91.144414
- Swainson, I.P.; Stock, C.; Parker, S.F.; Van Eijck, L.; Russina, M.; Taylor, J.W., *Soft phonons and fast continuum scattering in CH<sub>3</sub>NH<sub>3</sub>PbBr<sub>3</sub>*, Phys. Rev. B, **92**, 100303(R)/1-5, (2015), 10.1103/PhysRevB.92.100303

Skaugen, A.; Schierle, E.; van der Laan, G.; Shukla, D. K.; Walker, H. C.; Weschke, E.; Stremper, J., *Long-range antiferromagnetic order of formally nonmagnetic Eu<sup>3+</sup> Van Vleck ions observed in multiferroic Eu<sub>1-x</sub>Y<sub>x</sub>MnO<sub>3</sub>*, Phys. Rev. B, **91**, 180409/1-5, (2015), 10.1103/PhysRevB.91.180409

Frantzeskakis, E.; de Jong, N.; Zwartsenberg, B.; Bay, T.V.; Huang, Y.K.; Ramankutty, S.V.; Tytarenko, A.; Wu, D.; Pan, Y.; Hollanders, S.; Radovic, M.; Plumb, N.C.; Xu, N.; Shi, M.; Lupulescu, C.; Arion, T.; Ovsyannikov, R.; Varykhalov, A.; Eberhardt, W.; de Visser, A.; van Heumen, E.; Golden, M S, *Dirac states with knobs on: Interplay of external parameters and the surface electronic properties of three-dimensional topological insulators*, Phys. Rev. B, **91**, 205134/1-15, (2015), 10.1103/PhysRevB.91.205134

de Jong, N.; Frantzeskakis, E.; Zwartsenberg, B.; Huang, Y.K.; Wu, D.; Hlawenka, P.; Sanchez-Barriga, J.; Varykhalov, A.; van Heumen, E.; Golden, M.S., *Angle-resolved and core-level photoemission study of interfacing the topological insulator Bi<sub>1.5</sub>Sb<sub>0.5</sub>Te<sub>1.7</sub>Se<sub>1.3</sub> with Ag, Nb, and Fe*, Phys. Rev. B, **92**, 075127/1-10, (2015), 10.1103/PhysRevB.92.075127

Fink, J.; Charnukha, A.; Rienks, E.D.L.; Liu, Z.H.; Thirupathaiyah, S.; Avigo, I.; Roth, F.; Jeevan, H.S.; Gegenwart, P.; Roslova, M.; Morozov, I.; Wurmehl, S.; Bovensiepen, U.; Borisenko, S.; Vojta, M.; Buechner, B., *Non-Fermi-liquid scattering rates and anomalous band dispersion in ferropnictides*, Phys. Rev. B, **92**, 201106/1-6, (2015), 10.1103/PhysRevB.92.201106

de Jong, N.; Frantzeskakis, E.; Zwartsenberg, B.; Huang, Y. K.; Wu, D.; Hlawenka, P.; Sanchez-Barriga, J.; Varykhalov, A.; van Heumen, E.; Golden, M. S., *Erratum: Angle-resolved and core-level photoemission study of interfacing the topological insulator Bi<sub>1.5</sub>Sb<sub>0.5</sub>Te<sub>1.7</sub>Se<sub>1.3</sub> with Ag, Nb, and Fe (vol 92, 075127, 2015)*, Phys. Rev. B, **92**, 119903/1, (2015), 10.1103/PhysRevB.92.119903

Streubel, R.; Kronast, F.; Roessler, U.K.; Schmidt, O.G.; Makarov, D., *Reconfigurable large-area magnetic vortex circulation patterns*, Phys. Rev. B, **92**, 104431/1-8, (2015), 10.1103/PhysRevB.92.104431

Cuartero, V.; Lafuerza, S.; Subias, G.; Garcia, J.; Schierle, E.; Blasco, J.; Herrero-Albillos, J., *X-ray magnetic circular dichroism study of the magnetic anisotropy on TbMnO<sub>3</sub>*, Phys. Rev. B, **91**, 165111/1-8, (2015), 10.1103/PhysRevB.91.165111

Praetorius, C.; Zinner, M.; Köhl, A.; Kießling, H.; Brück, S.; Muenzing, B.; Kamp, M.; Kachel, T.; Choueikani, F.; Ohresser, P.; Wilhelm, F.; Rogalev, A.; Fauth, K., *Electronic tuneability of a structurally rigid surface intermetallic and Kondo lattice: CePt<sub>5</sub>/Pt(111)*, Phys. Rev. B, **92**, 045116/1-13, (2015), 10.1103/PhysRevB.92.045116

Prokes, K.; Hartwig, S.; Gukasov, A.; Mydosh, J. A.; Huang, Y. -K.; Niehaus, O.; Poettgen, R., *Coexistence of different magnetic moments in CeRuSn probed by polarized neutrons*, Phys. Rev. B, **91**, 014424/1-6, (2015), 10.1103/PhysRevB.91.014424

Tan, N.P.B.; Lee, C.H.; Chen, L.; Ho, K M.; Lu, Y.; Ballauff, M.; Li, P., *Facile synthesis of gold/polymer nanocomposite particles using polymeric amine-based particles as dual reductants and templates*, Polymer, **76**, 271-279, (2015), 10.1016/j.polymer.2015.09.015

Bihlmayer, G.; Rader, O.; Winkler, R., *Focus on the Rashba effect*, New J. Phys., **17**, 050202/1-8, (2015), 10.1088/1367-2630/17/5/050202

von Korff Schmising, C.; Giovannella, M.; Weder, D.; Schaffert, S.; Webb, J. L.; Eisebitt, S., *Nonlocal ultrafast demagnetization dynamics of Co/Pt multilayers by optical field enhancement*, New J. Phys., **17**, 033047/1-8, (2015), 10.1088/1367-2630/17/3/033047

- Guehrs, E.; Fohler, M.; Frömmel, S.; Günther, C.M.; Hessing, P.; Schneider, M.; Shemilt, L.; Eisebitt, S., *Mask-based dual-axes tomoholography using soft x-rays*, *New J. Phys.*, **17**, 103042/1-7, (2015), 10.1088/1367-2630/17/10/103042
- Tremis, A.S.; Kardjilov, N.; Strobl, M.; Manke, I.; Dawson, M.; McPhate, J.B.; Vallerger, J.V.; Siegmund, O.H.W.; Feller, W.B., *Imaging of dynamic magnetic fields with spin-polarized neutron beams*, *New J. Phys.*, **17**, 2-18, (2015), 10.1088/1367-2630/17/4/043047
- Rehbein, S.; Lyon, A.; Leung, R.; Feser, M.; Schneider, G., *Near field stacking of zone plates for reduction of their effective zone period*, *Opt. Express*, **23**, 11063-11072, (2015), 10.1364/OE.23.011063
- Hafner, A.; Anklamm, L.; Firsov, A.; Löchel, H.; Sokolov, A.; Gubzokov, R.; Erko, A., *Reflection zone plate wavelength-dispersive spectrometer for ultra-light elements measurements*, *Opt. Express*, **23**, 29476-29483, (2015), 10.1364/OE.23.029476
- Hilger, A.; Kardjilov, N.; Manke, I.; Zandler, C.; Lieutenant, K.; Habicht, K.; Banhart, J.; Strobl, M., *Neutron guide optimisation for a time-of-flight neutron imaging instrument at the European Spallation Source*, *Opt. Express*, **23**, 301–311, (2015), 10.1364/OE.23.000301
- Barth, C.; Wolters, J.; Schell, A.W.; Probst, J.; Schoengen, M.; Löchel, B.; Kowarik, S.; Benson, O., *Miniaturized Bragg-grating couplers for SiN-photonic crystal slabs*, *Opt. Express*, **23**, 9803-9811, (2015), 10.1364/OE.23.009803
- Löchel, H.; Braig, C.; Brzhezinskaya, M.; Siewert, F.; Baumgärtel, P.; Firsov, A.; Erko, A., *Femtosecond high-resolution hard X-ray spectroscopy using reflection zone plates*, *Opt. Express*, **23**, 8788-8799, (2015), 10.1364/OE.23.008788
- Agresti, J.; Osticioli, J.; Guidotti, M.C.; Capriotti, G.; Kardjilov, N.; Scherillo, A.; Siano, S., *Combined neutron and laser techniques for technological and compositional investigations of hollow bronze figurines*, *J. Anal. At. Spectr.*, **30**, 713-720, (2015), 10.1039/C4JA00447G
- Bon, V.; Pallmann, J.; Eisbein, E.; Hoffmann, H.C.; Senkovska, I.; Schwedler, I.; Schneemann, A.; Henke, S.; Wallacher, D.; Fischer, R.A.; Seifert, G.; Brunner, E.; Kaskel, S., *Characteristics of flexibility in metal-organic framework solid solutions of composition  $[Zn_2(BME-bdc)_x(DB-bdc)_{2-x}dabco]_n$ : In situ powder X-ray diffraction*, *Microporous Mesoporous Mater.*, **216**, 64–74, (2015), 10.1016/j.micromeso.2015.02.042
- Baglioni, M.; Benavides, Y.J.; Berti, D.; Giorgi, R.; Keiderling, U.; Baglioni, P., *An amine-oxide surfactant-based microemulsion for the cleaning of works of art*, *J. Colloid Interface Sci.*, **440**, 204-210, (2015), 10.1016/j.jcis.2014.10.003
- Zywczyk, A.; Rusinek, D.; Czub, J.; Sikora, M.; Stepien, J.; Gondek, L.; Takasaki, A.; Hoser, A., *Amorphous hydrides of the  $Ti_{45}Zr_{38}Ni_{17-x}Co_x$  nano-powders*, *Int. J. Hydrogen Energ.*, **40**, 15534-15539, (2015), 10.1016/j.ijhydene.2015.09.136
- Eckert, S.; Beye, M.; Pietzsch, A.; Quevedo, W.; Hantschmann, M.; Ochmann, M.; Ross, M.; Minitti, M. P.; Turner, J. J.; Moeller, S. P.; Schlotter, W. F.; Dakovski, G. L.; Khalil, M.; Huse, N.; Föhlisch, A., *Principles of femtosecond X-ray/optical cross-correlation with X-ray induced transient optical reflectivity in solids*, *Appl. Phys. Lett.*, **106**, 061104/1-4, (2015), 10.1063/1.4907949
- Seidel, R.; Atak, K.; Stephan, T.; Aziz, E.F.; Winter, B., *Ti<sup>3+</sup> Aqueous Solution: Hybridization and Electronic Relaxation Probed by State-Dependent Electron Spectroscopy*, *J. Phys. Chem. B*, **119**, 10607-10615, (2015), 10.1021/acs.jpcc.5b03337

- Unger, I.; Hollas, D.; Seidel, R.; Thuermer, S.; Aziz, E.F.; Slavicek, P.; Winter, B., *Control of X-ray Induced Electron and Nuclear Dynamics in Ammonia and Glycine Aqueous Solution via Hydrogen Bonding*, J. Phys. Chem. B, **119**, 10750-10759, (2015), 10.1021/acs.jpcc.5b07283
- Martin, M.-B.; Dlubak, B.; Weatherup, R.S.; Piquemal-Banci, M.; Yang, H.; Blume, R.; Schloegl, R.; Collin, S.; Petroff, F.; Hofmann, S.; Robertson, J.; Anane, A.; Fert, A.; Seneor, P., *Protecting nickel with graphene spin-filtering membranes: A single layer is enough*, Appl. Phys. Lett., **107**, 012408/1-4, (2015), 10.1063/1.4923401
- Tentscher, P.R.; Seidel, R.; Winter, B.; Guerard, J.J.; Arey, J.S., *Exploring the Aqueous Vertical Ionization of Organic Molecules by Molecular Simulation and Liquid Microjet Photoelectron Spectroscopy*, J. Phys. Chem. B, **119**, 238-256, (2015), 10.1021/jp508053m
- Golnak, R.; Xiao, J.; Atak, K.; Khan, M.; Suljoti, E.; Aziz, E.F., *Local Energy Gap Opening Induced by Hemin Dimerization in Aqueous Solution*, J. Phys. Chem. B, **119**, 3058-3062, (2015), 10.1021/jp509966q
- Nehrkorn, J.; Telsler, J.; Holldack, K.; Stoll, S.; Schnegg, A., *Simulating Frequency-Domain Electron Paramagnetic Resonance: Bridging the Gap between Experiment and Magnetic Parameters for High-Spin Transition-Metal Ion Complexes*, J. Phys. Chem. B, **119**, 13816 - 13824, (2015), 10.1021/acs.jpcc.5b04156
- Selin, M.; Fogelqvist, E.; Werner, S.; Hertz, H.M., *Tomographic reconstruction in soft x-ray microscopy using focus-stack back-projection*, Opt. Lett., **40**, 2201-2204, (2015), 10.1364/OL.40.002201
- Förster, D.; Lindenau, B.; Leyendecker, M.; Janssen, F.; Winkler, C.; Schumann, F.O.; Kirschner, J.; Holldack, K.; Föhlich, A., *Phase-locked MHz pulse selector for x-ray sources*, Opt. Lett., **40**, 2265-2268, (2015), 10.1364/OL.40.002265
- Seim, C.; Reineke, K.; Werner, S.; Dehlinger, A.; Legall, H.; Stiel, H.; Kanngießer, B., *High pressure treated Bacillus subtilis spores - Structural analysis by means of synchrotron and laboratory based soft X-ray microscopy*, Inn. Food Science & Eme. Techn., **29**, 134-142, (2015), 10.1016/j.ifset.2015.03.010
- Habicht, A.; Schmolke, W.; Goerigk, G.J.; Lange, F.; Saalwächter, K.; Ballauff, M.; Seiffert, S., *Critical Fluctuations and Static Inhomogeneities in Polymer Gel Volume Phase Transitions*, J. Poly. Sci. A, **53**, 1112-1122, (2015), 10.1002/polb.23743
- Kittelmann, T.; Boin, M., *Polycrystalline neutron scattering for Geant4: NXSG4*, Comp. Phys. Comm., **189**, 114-118, (2015), 10.1016/j.cpc.2014.11.009
- Ivanovski, V.N.; Cekic, B.; Umicevic, A.; Barudzija, T.; Schumacher, G.; Madarevic, I.; Koteski, V., *Site preference of Hf dopant in Ni<sub>3</sub>Al alloys: A perturbed angular correlation study*, J. Alloy. Compd., **622**, 541-544, (2015), 10.1016/j.jallcom.2014.10.132
- Egorova, Y.; Scherb, T.; Schumacher, G.; Bouwmeester, H.; Filatova, E., *Soft x-ray absorption spectroscopy study of (Ba<sub>0.5</sub>Sr<sub>0.5</sub>)(Co<sub>0.8</sub>Fe<sub>0.2</sub>)<sub>1</sub>-NbxO<sub>3</sub> with different content of Nb (5%-20%)*, J. Alloy. Compd., **650**, 848-852, (2015), 10.1016/j.jallcom.2015.08.073
- Troyanchuk, I.O.; Bushinsky, M.V.; Sikolenko, V.; Efimov, V.; Volkov, N.V.; Többens, D.M.; Ritter, C.; Raveau, B., *Ferromagnetism in single-valent manganites*, J. Alloy. Compd., **619**, 719-725, (2015), 10.1016/j.jallcom.2014.08.236



- Rusinek, D.; Czub, J.; Niewolski, J.; Gondek, L.; Gajewska, M.; Takasaki, A.; Hoser, A.; Zywczyk, A., *Structural phase transitions in the Ti45Zr38Ni17-xFex nano-alloys and their deuterides*, J. Alloy. Compd., **646**, 90-95, (2015), 10.1016/j.jallcom.2015.06.023
- Zamudio-Bayer, V.; Hirsch, K.; Langenberg, A.; Kossick, M.; Lawicki, A.; Terasaki, A.; von Issendorff, B.; Lau, J.T., *Direct observation of high-spin states in manganese dimer and trimer cations by x-ray magnetic circular dichroism spectroscopy in an ion trap*, J. Chem. Phys., **142**, 234301/1-6, (2015), 10.1063/1.4922487
- Zamudio-Bayer, V.; Hirsch, K.; Langenberg, A.; Lawicki, A.; Terasaki, A.; von Issendorff, B.; Lau, J.T., *Electronic ground states of Fe<sup>2+</sup> and Co<sup>2+</sup> as determined by x-ray absorption and x-ray magnetic circular dichroism spectroscopy*, J. Chem. Phys., **143**, 244318/1-6, (2015), 10.1063/1.4939078
- Sellberg, J.; McQueen, T.; Laksmono, H.; Schreck, S.; Beye, M.; DePonte, D.; Kennedy, B.; Nordlund, D.; Sierra, R.; Schlesinger, D.; Tokushima, T.; Zhovtobriukh, I.; Eckert, S.; Segtnan, V.; Ogasawara, H.; Kubicek, K.; Techert, S.; Bergmann, U.; Dakovski, G.; Schlotter, W.; Harada, Y.; Bogan, M.; Wernet, P.; Föhlisch, A.; Pettersson, L.; Nilsson, A., *X-ray emission spectroscopy of bulk liquid water in “no-man’s land”*, J. Chem. Phys., **142**, 044505/1-9, (2015), 10.1063/1.4905603
- Hoffmann, I.; Farago, B.; Schweins, R.; Falus, P.; Sharp, M.; Prevost, S.; Gradzielski, M., *On the mesoscopic origins of high viscosities in some polyelectrolyte-surfactant mixtures*, J. Chem. Phys., **143**, 074902/1-11, (2015), 10.1063/1.4928583
- Grell, G.; Bokarev, S.I.; Winter, B.; Seidel, R.; Aziz, E.F.; Aziz, S.G.; Kühn, O., *Multi-reference approach to the calculation of photoelectron spectra including spin-orbit coupling*, J. Chem. Phys., **143**, 074104/1-9, (2015), 10.1063/1.4928511
- Leitner, T.; Taieb, R.; Meyer, M.; Wernet, P., *Probing photoelectron angular distributions in molecules with polarization-controlled two-color above-threshold ionization*, Phys. Rev. A, **91**, 063411/1-7, (2015), 10.1103/PhysRevA.91.063411
- Kozhevnikov, I.V.; Filatova, E.O.; Sokolov, A.A.; Konashuk, A.S.; Siewert, F.; Störmer, M.; Gaudin, J.; Keitel, B.; Samoylova, L.; Sinn, H., *Comparative study of the X-ray reflectivity and in-depth profile of a-C, B4C and Ni coatings at 0.1–2 keV*, J. Synchrot. Radiat., **22**, 1-6, (2015), 10.1107/S1600577515000430
- Savoly, Z.; Buzanich, G.; Pepponi, G.; Strelci, C.; Hracs, K.; Nagy, P.I.; Zárny, G., *The fate of nano-ZnO and its bulk counterpart in the body of microscopic nematodes: An X-ray spectrometric study*, Microchem. J., **118**, 80-87, (2015), 10.1016/j.microc.2014.08.011
- Stribeck, N.; Li, X.; Kogut, I.; Moritz, H.-U.; Eling, B.; Goerigk, G.; Hoell, A., *Morphological failure mechanisms in tensile tests of crosslinked polyurethanes with poorly developed domain structure*, Macromol. Mat. Eng., **300**, 699-711, (2015), 10.1002/mame.201500007
- Feye-Treimer, U.; Treimer, W., *Erratum: Phase-based x-ray scattering - A possible method to detect cancer cells in a very early stage*, Med. Phys., **42**, 2654, (2015), 10.1118/1.4917220
- Lentz, M.; Klaus, M.; Wagner, M.; Fahrenson, Ch.; Beyerlein, I. J.; Zecevic, M.; Reimers, W.; Knezevic, M., *Effect of age hardening on the deformation behavior of an Mg-Y-Nd alloy: In-situ X-ray diffraction and crystal plasticity modeling*, Mater. Sci. Eng. A, **628**, 396-409, (2015), 10.1016/j.msea.2015.01.069
- Keller, L.; Hilger, A.; Manke, I., *Impact of sand content on solute diffusion in Opalinus Clay*, App. Clay Sc., **0**, 134-142, (2015), 10.1016/j.clay.2015.04.009

Gierster, L.; Ünal, A.A.; Pape, L.; Radu, F.; Kronast, F., *Laser induced magnetization switching in a TbFeCo ferrimagnetic thin film: discerning the impact of dipolar fields, laser heating and laser helicity by XPEEM*, *Ultramicroscopy*, **159**, 508-512, (2015), 10.1016/j.ultramic.2015.05.016

Schuetz, R.; Fix, D.; Schade, U.; Aziz, E.F.; Timofeeva, N.; Weinkamer, R.; Masic, A., *Anisotropy in Bone Demineralization Revealed by Polarized Far-IR Spectroscopy*, *Mol.*, **20**, 5835-5850, (2015), 10.3390/molecules20045835

Tedesco, J.C.G.; Carvalho, A.M.G.; Christensen, N.B.; Kockelmann, W.; Telling, M.T.F.; Yokaichiya, F.; Töbrens, D.M.; Simeoni, G.G.; Cardoso, L.P.; Coelho, A.A.; Bordallo, H.N., *Analysis of the crystallographic and magnetic structures of the Tb<sub>0.1</sub>Pr<sub>0.9</sub>Al<sub>2</sub> and Tb<sub>0.25</sub>Pr<sub>0.75</sub>Al<sub>2</sub> magnetocaloric compounds by means of neutron scattering*, *J. Mater. Sci.*, **50**, 2884-2892, (2015), 10.1007/s10853-015-8851-1

Toth, S.; Lake, B., *Linear spin wave theory for single-Q incommensurate magnetic structures*, *J. Phys.: Condens. Matter*, **27**, 166002/1-10, (2015), 10.1088/0953-8984/27/16/166002

Anand, V.K.; Tennant, D.A.; Lake, B., *Investigations of the effect of nonmagnetic Ca substitution for magnetic Dy on spin-freezing in Dy<sub>2</sub>Ti<sub>2</sub>O<sub>7</sub>*, *J. Phys.: Condens. Matter*, **27**, 436001/1-9, (2015), 10.1088/0953-8984/27/43/436001

Sikolenko, V.; Troyanchuk, I.; Bushinsky, M.; Efimov, V.; Keller, L.; White, J. S.; Schilling, F. R.; Schorr, S., *High pressure induced spin state crossover in Sr<sub>2</sub>CaYCo<sub>4</sub>O<sub>10.5</sub>*, *J. Phys.: Condens. Matter*, **27**, 046005/1-5, (2015), 10.1088/0953-8984/27/4/046005

Gu, S.; Kaiser, J.; Marzun, G.; Ott, A.; Lu, Y.; Ballauff, M.; Zaccone, A.; Barcikowski, S.; Wagoner, P., *Ligand-free Gold Nanoparticles as a Reference Material for Kinetic Modelling of Catalytic Reduction of 4-Nitrophenol*, *Cat. Letters*, **145**, 1105-1112, (2015), 10.1007/s10562-015-1514-7

Saito, K.; Ueno, T.; Yano, M.; Harada, M.; Shoji, T.; Sakuma, N.; Manabe, A.; Kato, A.; Keiderling, U.; Ono, K., *Magnetization reversal of a Nd-Cu-infiltrated Nd-Fe-B nanocrystalline magnet observed with small-angle neutron scattering*, *J. Appl. Phys.*, **117**, 17B302/1-4, (2015), 10.1063/1.4908026

Roshchupkin, D.; Ortega, L.; Zizak, I.; Plotitsyna, O.; Matveev, V.; Kononenko, O.; Emelin, E.; Erko, A.; Tynyshtykbayev, K.; Irzhak, D.; Insepov, Z., *Surface acoustic wave propagation in graphene film*, *J. Appl. Phys.*, **118**, 104901/1-5, (2015), 10.1063/1.4930050

Kunkel, N.; Reichert, C.; Springborg, M.; Wallacher, D.; Kohlmann, H., *Hydrogenation properties of Li<sub>x</sub>Sr<sub>1-x</sub>AlSi studied by quantum-chemical methods (0 ≤ x ≤ 1) and in-situ neutron powder diffraction (x=1)*, *J. Solid State Chem.*, **211**, 318-324, (2015), 10.1016/j.jssc.2014.10.021

Raghuwanshi, V.S.; Harizanova, R.; Tatchev, D.; Hoell, A.; Rüssel, C., *Structural analysis of Fe-Mn-O nanoparticles in glass ceramics by small angle scattering*, *J. Solid State Chem.*, **222**, 103-110, (2015), 10.1016/j.jssc.2014.11.009

Feinauer, J.; Brereton, T.; Spetl, A.; Weber, M.; Manke, I.; Schmidt, V., *Stochastic 3D modeling of the microstructure of lithium-ion battery anodes via Gaussian random fields on the sphere*, *Comp Mat Science*, **109**, 137-146, (2015), 10.1016/j.commatsci.2015.06.025

Öberg, H.; Gladh, J.; Dell'Angela, M.; Anniyev, T.; Beye, M.; Coffee, R.; Föhlisch, A.; Katayama, T.; Kaya, S.; LaRue, J.; Mogelhoj, A.; Nordlund, D.; Ogasawara, H.; Schlotter, W. F.; Sellberg, J. A.; Sorgenfrei, F.; Turner, J. J.; Wolf, M.; Wurth, W.; Öström, H.; Nilsson, A.; Norskov, J. K.; Pettersson, L.G.M., *Optical laser-induced CO desorption from Ru(0001) monitored with a free-electron X-ray laser*:

- DFT prediction and X-ray confirmation of a precursor state*, Surf. Sci., **640**, 80-88, (2015), 10.1016/j.susc.2015.03.011
- Vogel, C.; Stemann, J.; Holldack, K.; Sekine, R.; Lipiec, E.; Adam, C., *Thermal treatment of chromium(III) oxide with carbonates analyzed by far-infrared spectroscopy*, Appl. Spect., **69**, 1210-1214, (2015), 10.1366/15-07878
- Pardo-Alonso, S.; Solórzano, E.; Vincente, J.; Brabant, L.; Dierik, M.; Manke, I.; Hilger, A.; Laguna, E.; Rodriguez-Perez, M.A., *muCT-Based Analysis of the Solid Phase in Foams: Cell Wall Corrugation and other Microscopic Features*, Micro. Microanal., **21**, 1361-1371, (2015), 10.1017/S1431927615014890
- Platt, P.; Polatidis, E.; Frankel, P.; Klaus, M.; Gass, M.; Howells, R.; Preuss, M., *A Study into Stress Relaxation in Oxides Formed on Zirconium Alloys*, J. Nuclear Mater., **456**, 415-425, (2015), 10.1016/j.jnucmat.2014.09.072
- Feinauer, J.; Spetl, A.; Manke, I.; Strege, S.; Kwade, A.; Pott, A.; Schmidt, V., *Structural Characterization of Particle Systems using Spherical Harmonics*, Mater. Character., **106**, 123-133, (2015), 10.1016/j.matchar.2015.05.023
- Marx, V.M.; Kirchlechner, C.; Zizak, I.; Cordill, M.J.; Dehm, G., *Adhesion measurement of a buried Cr interlayer on polyimide*, Phil. Mag., **95**, 1982-1991, (2015), 10.1080/14786435.2014.920543
- Born, Philip; Holldack, Karsten; Sperl, Matthias, *Particle characterization using THz spectroscopy*, Gran. Matt., **17**, 531-536, (2015), 10.1007/s10035-015-0578-9
- Liu, Y.; Schumacher, G.; Bian, X.F.; Banhart, J., *Local constriction around minor elements in Al<sub>86</sub>Ni<sub>7</sub>X<sub>1</sub>Y<sub>6</sub> metallic glass (X: Ag, Au, Pt)*, J. Non-Cryst. Solids, **422**, 26-31, (2015), doi:10.1016/j.jnoncrysol.2015.05.001
- Russina, O.; Macchiagodena, M.; Kirchner, B.; Mariani, A.; Aoun, B.; Russina, M.; Caminiti, R.; Triolo, A., *Association in ethylammonium nitrate-dimethyl sulfoxide mixtures: First structural and dynamical evidences*, J. Non-Cryst. Solids, **407**, 333-338, (2015), 10.1016/j.jnoncrysol.2014.08.051
- Hampe, O.; Franke, H.; Hipsley, A.; Kardjilov, N.; Müller, J., *Prenatal cranial ossification of the humpback whale (Megaptera novaeangliae)*, J. of Morph., **276**, 564-582, (2015), 10.1002/jmor.20367
- Crumpton, N.; Kardjilov, N.; Asher, R.J., *Convergence vs. Specialization in the Ear Region of Moles (Mammalia)*, J. of Morph., **276**, 900-914, (2015), 10.1002/jmor.20391
- Alfeld, M.; Laurenze-Landsberg, C.; Denker, A.; Janssens, K.; Noble, P., *Neutron activation autoradiography and scanning macro-XRF of Rembrandt van Rijn's Susanna and the Elders (Gemäldegalerie Berlin): a comparison of two methods for imaging of historical paintings with elemental contrast*, Appl. Phys. A, **119**, 795-805, (2015), 10.1007/s00339-015-9081-8
- Dugan, G.F.; Sonnad, K.G.; Cimino, R.; Ishibashi, T.; Schäfers, F., *Measurements of x-ray scattering from accelerator vacuum chamber surfaces, and comparison with an analytical model*, Phys. Rev. Spec. Topics, **18**, 040704/1-20, (2015), 10.1103/PhysRevSTAB.18.040704
- Pöplau, G.; van Rienen, U.; Meseck, A., *Numerical studies of the behavior of ionized residual gas in an energy recovering linac*, Phys. Rev. Spec. Topics, **18**, 044401/1-12, (2015), 10.1103/PhysRevSTAB.18.044401

- Vogt, J.-M.; Kugeler, O.; Knobloch, J., *High-Q operation of superconducting rf cavities: Potential impact of thermocurrents on the rf surface resistance*, Phys. Rev. Spec. Topics, **18**, 042001/1-11, (2015), 10.1103/PhysRevSTAB.18.042001
- Gierster, L.; Pape, L.; Uenal, A.A.; Kronast, F., *A sample holder with integrated laser optics for an ELMITEC photoemission electron microscope*, Rev. Sci. Instrum., **86**, 023702/1-4, (2015), 10.1063/1.4907402
- Prokhnenko, O.; Stein, W.-D.; Bleif, H.-J.; Fromme, M.; Bartkowiak, M.; Wilpert, T., *Time-of-flight Extreme Environment Diffractometer at the Helmholtz-Zentrum Berlin*, Rev. Sci. Instrum., **86**, 033102/1-9, (2015), 10.1063/1.4913656
- Groitzl, F.; Keller, T.; Quintero-Castro, D. L.; Habicht, K., *Neutron resonance spin-echo upgrade at the three-axis spectrometer FLEXX*, Rev. Sci. Instrum., **86**, 025110/1-9, (2015), 10.1063/1.4908167
- Yin, Z.; Peters, H.B.; Hahn, U.; Agaker, M.; Hage, A.; Reininger, R.; Siewert, F.; Nordgren, J.; Viefhaus, J.; Techert, S., *A new compact soft x-ray spectrometer for resonant inelastic x-ray scattering studies at PETRA III*, Rev. Sci. Instrum., **86**, 093109/1-5, (2015), 10.1063/1.4930968
- Abrudan, R.; Bruessing, F.; Salikhov, R.; Meermann, J.; Radu, I.; Ryll, H.; Radu, F.; Zabel, H., *ALICE-An advanced reflectometer for static and dynamic experiments in magnetism at synchrotron radiation facilities*, Rev. Sci. Instrum., **86**, 063902/1-18, (2015), 10.1063/1.4921716
- Tötzke, C.; Manke, I.; Gaiselmann, G.; Bohner, J.; Müller, B.R.; Kupsch, A.; Hentschel, M.P.; Schmidt, V.; Banhart, J.; Lehnert, W., *A dedicated compression device for high resolution X-ray tomography of compressed gas diffusion layers*, Rev. Sci. Instrum., **86**, 043702/1-6, (2015), 10.1063/1.4918291
- Valiska, M.; Pospisil, J.; Stunault, A.; Takeda, Y.; Gillon, B.; Haga, Y.; Prokes, K.; Abd-Elmeguid, M.M.; Nenert, G.; Okane, T.; Yamagami, H.; Chapon, L.; Gukasov, A.; Cousson, A.; Yamamoto, E.; Sechovsky, V., *Gradual Localization of 5f States in Orthorhombic UTX Ferromagnets: Polarized Neutron Diffraction Study of Ru Substituted UCoGe*, J. the Phys. Soc. Jpn., **84**, 084707/1-8, (2015), 10.7566/JPSJ.84.084707
- Pietzsch, A.; Nisar, J.; Jämstorp, E.; Grasjö, J.; Arhammar, C.; Ahuja, R.; Rubensson, J.-E., *Kaolinite: Defect defined material properties - A soft X-ray and first principles study of the band gap*, J. Electr. Spectr., **202**, 11-15, (2015), 10.1016/j.elspec.2015.02.003
- Schiwietz, G.; Beye, M.; Kühn, D.; Xiao, G., *The retarding Bessel-Box - an electron-spectrometer designed for pump/probe experiments*, J. Electr. Spectr., **203**, 51-59, (2015), 10.1016/j.elspec.2015.06.011
- Zhao, H.; Chen, X.G.; Wei, J.Z.; Du, H.L.; Han, J.Z.; Wang, C.S.; Liu, S.Q.; Zhang, Y.; Yang, Y.C.; Franz, A.; Töbrens, D.; Yang, J.B., *Competing Magnetic Interactions in Co-Doped La<sub>0.7</sub>Sr<sub>0.3</sub>MnO<sub>3</sub>*, IEEE Trans. Magn., **51**, 1200205/1-5, (2015), 10.1109/TMAG.2015.2443154
- Mueller, U.; Förster, R.; Hellmig, M.; Huschmann, F.U.; Kastner, A.; Malecki, P.; Pühringer, S.; Röwer, M.; Sparta, K.; Steffien, M.; Ühlein, M.; Wilk, P.; Weiss, M.S., *The macromolecular crystallography beamlines at BESSY II of the Helmholtz-Zentrum Berlin: Current status and perspectives*, Europ. Phys. J. Plus, **130**, 141/1-10, (2015), 10.1140/epjp/i2015-15141-2
- Reinhardt, M.; Kreuzer, M.; Geue, T.; Dahint, R.; Ballauff, M.; Steitz, R., *Poly-acrylic Acid Brushes and Adsorbed Proteins*, Z. Phys. Chem., **229**, 1119-1139, (2015), 10.1515/zpch-2014-0540

- Yin, Z.; Rajkovic, I.; Thekku Veedu, S.; Deinert, S.; Raiser, D.; Jain, R.; Fukuzawa, H.; Wada, S.; Quevedo, W.; Kennedy, B.; Schreck, S.; Pietzsch, A.; Wernet, P.; Ueda, K.; Föhlisch, A.; Techert, S., *Ionic Solutions Probed by Resonant Inelastic X-ray Scattering*, *Z. Phys. Chem.*, **229**, 1855-1867, (2015), 10.1515/zpch-2015-0610
- Früh, J.; Rühm, A.; Möhwald, H.; Krastev, R.; Köhler, R., *Reflectometry on curved interfaces*, *Physica B*, **457**, 202-211, (2015), 10.1016/j.physb.2014.08.030
- Kim, F.H.; Penumadu, D.; Gregor, J.; Marsch, M.; Kardjilov, N.; Manke, I., *Characterizing Partially Saturated Compacted-Sand Specimen Using 3D Image Registration of High-Resolution Neutron and X-Ray Tomography*, *J. Comp. Civil Eng.*, **29**, 04014096/1-11, (2015), 10.1061/(ASCE)CP.1943-5487.0000424
- Dixon, I.R.; Adkins, T.A.; Bird, M.D.; Bole, S.; Toth, J.; Ehmler, H.; Hoffmann, M.; Smeibidl, P., *Final Assembly of the Helmholtz-Zentrum Berlin Series-Connected Hybrid Magnet System*, *IEEE Trans. Appl. Supercond.*, **25**, 4300204/1-4, (2015), 10.1109/TASC.2014.2361098
- Schmitz, D.; Siewert, F.; Zeschke, T., *Stripe pattern in the intensity profile of collimated soft x-ray beams caused by surface corrugation of the refocusing mirrors*, *Nucl. Instrum. Methods Phys. Res. Sect. A*, **774**, 89–93, (2015), 10.1016/j.nima.2014.11.094
- Bartkowiak, M.; Stüßer, N.; Prokhnenko, O., *The design of the inelastic neutron scattering mode for the Extreme Environment Diffractometer with the 26 T High Field Magnet*, *Nucl. Instrum. Methods Phys. Res. Sect. A*, **797**, 121-129, (2015), 10.1016/j.nima.2015.06.028
- Gurieva, G.; Dimitrievska, M.; Zander, S.; Pérez-Rodríguez, A.; Izquierdo-Roca, V.; Schorr, S., *Structural characterisation of Cu<sub>2</sub>O<sub>4</sub>Zn<sub>0.91</sub>Sn<sub>1.05</sub>S<sub>2</sub>O<sub>8</sub>Se<sub>1.92</sub>*, *Phys. Status Solidi C*, **12**, 588–591, (2015), 10.1002/pssc.201400307
- Ishikawa, T.; Watanabe, T.; Hara, S.; Islam, A.T.M.N.; Wheeler, E.M.; Lake, B., *Ultrasound velocity measurements in orbital-degenerate frustrated spinel MgV<sub>2</sub>O<sub>4</sub>*, *J. Phys. Conf.*, **592**, 012107/1-4, (2015), 10.1088/1742-6596/592/1/012107
- Lim, J.A.; Siemensmeyer, K.; Cermak, P.; Lake, B.; Schneidewind, A.; Inosov, D.S., *Bambus: a new inelastic multiplexed neutron spectrometer for PANDA*, *J. Phys. Conf.*, **592**, 012145/1-6, (2015), 10.1088/1742-6596/592/1/012145
- Voigt, J.; Soltner, H.; Babcock, E.; Aldus, R.J.; Salhi, Z.; Gainov, R.R.; Brueckel, T., *Polarization analysis for the thermal chopper spectrometer TOPAS*, *EPJ Web Conf*, **83**, 03016/1-5, (2015), 10.1051/epjconf/20158303016
- Brokmeier, H.-G.; Carradó, A.; Al-hamdany, N.; Pirling, T.; Wimpory, R.; Schell, N.; Palkowski, H., *Texture gradient in a copper tube at maximum and minimum wall thickness*, *IOP Conf. Ser.*, **82**, 012102/1-4, (2015), 10.1088/1757-899X/82/1/012102
- Prokes, K.; Hartwig, S.; Stunault, A.; Isikawa, Y.; Stockert, O., *Probing Magnetism in CePdAl under Multi-Extreme Conditions using Polarized Neutrons*, *J. Phys. Conf.*, **592**, 012082/1-6, (2015), 10.1088/1742-6596/592/1/012082
- Hartwig, S.; Prokes, K.; Huang, Y.; Pöttgen, R., *Magnetic neutron diffraction and pressure studies on CeRuSn*, *J. Phys. Conf.*, **592**, 012091/1-6, (2015), 10.1088/1742-6596/592/1/012091
- Dell'Angela, M.; Anniyev, T.; Beyre, M.; Coffee, R.; Föhlisch, A.; Gladh, J.; Kaya, S.; Katayama, T.; Krupin, O.; Nilsson, A.; Nordlund, D.; Schlotter, W. F.; Sellberg, J. A.; Sorgenfrei, F.; Turner, J. J.;

Öström, H.; Ogasawara, H.; Wolf, M.; Wurth, W., *Vacuum space charge effects in sub-picosecond soft X-ray photoemission on a molecular adsorbate layer*, *Str. Dyn.*, **2**, 025101/1-10, (2015), 10.1063/1.4914892

Rose, J.P.; Wang, B.-C.; Weiss, M.S., *Native SAD is maturing*, *IUCrJ*, **2**, 431-440, (2015), 10.1107/S2052252515008337

Höh, M.A.; Arlt, T.; Kardjilov, N.; Manke, I.; Banhart, J.; Fritz, D.L.; Ehlert, J.; Lüke, W.; Lehnert, W., *In-operando Neutron Radiography Studies of Polymer Electrolyte Membrane Water Electrolyzers*, *ECS Trans.*, **69**, 1135-1140, (2015), 10.1149/06917.1135ecst

Härk, E.; Jäger, R.; Tallo, T.; Thomberg, T.; Kurig, H.; Russina, M.; Kardjilov, N.; Manke, I.; Hilger, A.; Lust, E., *Different Carbide Derived Nanoporous Carbon Supports and Electroreduction of Oxygen*, *ECS Trans.*, **66**, 69-80, (2015), 10.1149/06624.0069ecst

Habicht, K.; Quintero-Castro, D.L.; Toft-Petersen, R.; Kure, M.; Maede, L.; Groitl, F.; Le, M.D., *The upgraded cold neutron triple-axis spectrometer FLEXX - enhanced capabilities by new instrumental options*, *EPJ Web Conf*, **83**, 03007/1-5, (2015), 10.1051/epjconf/20158303007

Haußmann, J.; Wilhelm, F.; Enz, S.; Klages, M.; Pournemat, A.; Bergbreiter, Ch.; Clark, J.S.; Duraisamy, K.P.; Seibenberger, K.; Markötter, H.; Manke, I.; Scholta, J., *GDL and MPL Characterization and Their Relevance to Fuel Cell Modelling*, *ECS Trans.*, **69**, 1279-1291, (2015), 10.1149/06917.1279ecst

Winkler, S.; Amsalem, P.; Frisch, J.; Oehzelt, M.; Heimel, G.; Koch, N., *Probing the energy levels in hole-doped molecular semiconductors*, *Mater. Horizons*, **2**, 427-433, (2015), 10.1039/c5mh00023h

Papaefthimiou, V.; Diebold, M.; Ulhaq-Bouillet, C.; Doh, W.H.; Blume, R.; Zafeiratos, S.; Savinova, E.R., *Potential - induced segregation phenomena in bimetallic PtAu nanoparticles: an in-situ near ambient pressure photoelectron spectroscopy (NAP-XPS) study*, *ChemElectroChem*, **2**, 1519-1526, (2015), 10.1002/celec.201500188

Opitz, A.K.; Nenning, A.; Kogler, S.; Rameshan, C.; Rameshan, R.; Blume, R.; Hävecker, M.; Knop-Gericke, A.; Ruppel, G.; Klötzer, B.; Fleig, J., *Water Splitting on Model-Composite La<sub>0.6</sub>Sr<sub>0.4</sub>FeO<sub>3-d</sub> (LSF) Electrodes in H<sub>2</sub>/H<sub>2</sub>O Atmosphere*, *ECS Trans.*, **68**, 3333-3343, (2015), 10.1149/06801.3333ecst

Barrett, M.A.; Alsop, R.; Hauß, T.; Rheinstädter, M., *The Position of A beta 22-40 and A beta 1-42 in Anionic Lipid Membranes Containing Cholesterol*, *Membr.*, **5**, 824-843, (2015), 10.3390/membranes5040824

Radu, I.; Stamm, C.; Eschenlohr, A.; Radu, F.; Abrudan, R.; Vahaplar, K.; Kachel, T.; Pontius, N.; Mitzner, R.; Holldack, K.; Föhlisch, A.; Evans, R. F. L.; Ostler, T. A.; Mentink, J.; Chantrell, R. W.; Tsukamoto, A.; Itoh, A.; Kirilyuk, A.; Kimel, A. V.; Rasing, Th., *Engineering Ultrafast Magnetism*, , , 297-299, (2015), 10.1007/978-3-319-07743-7\_92

Garcez, E.O.; Aldridge, L.P.; Raven, M.; Gates, W.P.; Collins, F.; Franco, M.; Yokaichiya, F., *Synchrotron Powder Diffraction Study of Cements Pastes*, *J. Austr. Cer. Soc.*, **51**, 47-53, (2015),

Calligaris, G.A.; Franco, M.K.K.D.; Aldrige, L.P.; Rodrigues, M.S.; Beraldo, A.Lu.; Yokaichiya, F.; Turrillas, X.; Cardoso, L.P., *Assessing the pozzolanic activity of cements with added sugar cane straw ash by synchrotron X-ray diffraction and Rietveld analysis*, *Constr. Build. Mat.*, **98**, 44-50, (2015), 10.1016/j.conbuildmat.2015.08.103

Maerten, L.; Bojahr, A.; Bargheer, M., *Observing backfolded and unfolded acoustic phonons by broadband optical light scattering*, *Ultras.*, **56**, 148-152, (2015), 10.1016/j.ultras.2014.08.023

Willerding, G.D.; Cordini, D.; Hackl, C.; Karle, B.; Lakotka, N.; Foerster, M.H.; Bechrakis, N.E.; Heufelder, J.; Moser, L.; Joussem, A.M., *Proton beam radiotherapy of diffuse iris melanoma in 54 patients*, *Brit. J. Opht.*, **99**, 812-816, (2015), 10.1136/bjophthalmol-2014-305174

Hagen, C.; Dent, K.C.; Zeev-Ben-Mordehai, T.; Grange, M.; Bosse, J.B.; Whittle, C.; Klupp, B.G.; Siebert, C.A.; Vasishtan, D.; Baeuerlein, F.J.B.; Cheleski, J.; Werner, S.; Guttmann, P.; Rehbein, S.; Henzler, K.; Demmerle, J.; Adler, B.; Koszinowski, U.; Schermelleh, L.; Schneider, G.; Enquist, L.W.; Plitzko, J.M.; Mettenleiter, T.C.; Gruenewald, K., *Structural Basis of Vesicle Formation at the Inner Nuclear Membrane*, *Cell*, **163**, 1692-1701, (2015), 10.1016/j.cell.2015.11.029

Bahrtdt, J.; Kuhn, C., *Cryogenic Permanent Magnet Undulator Development at HZB/BESSY II*, *Syn. Rad. News*, **28**, 7-14, (2015), 10.1080/08940886.2015.1037673