

- Khokhriakov, I., Lottermoser, L., Beckmann, F., Integrated control system environment for high-throughput tomography, *Proceedings of SPIE - Developments in X-Ray Tomography XI* 10391 (2017) 103911H, doi: 10.1117/12.2287221
- Angelov, B.; Garamus, V.M.; Drechsler, M.; Angelova, A., Structural analysis of nanoparticulate carriers for encapsulation of macromolecular drugs, *Journal of Molecular Liquids* 235 (2017) 83, doi: 10.1016/j.molliq.2016.11.064
- Angelova, A.; Garamus, V.M.; Angelov, B.; Tian, Z.; Li, Y.; Zou, A., Advances in structural design of lipid-based nanoparticle carriers for delivery of macromolecular drugs, phytochemicals and anti-tumor agents, *Advances in Colloid and Interface Science* 249 (2017) 331, doi: 10.1016/j.cis.2017.04.006
- Antunes-Carvalho, C.; Yavorskaya, M.; Gnaspini, P.; Ribera, I.; Hammel, J.U.; Beutel, R.G., Cephalic anatomy and three-dimensional reconstruction of the head of *Catops ventricosus* (Weise, 1877) (Coleoptera: Leiodidae: Cholevinae), *Organisms Diversity and Evolution* 17 1 (2017) 199, doi: 10.1007/s13127-016-0305-3
- Balejčíková, L.; Garamus, V.M.; Avdeev, M.V.; Petrenko, V.I.; Almásy, L.; Kopčanský, P., The effect of solution pH on the structural stability of magnetoferritin, *Colloids and Surfaces B: Biointerfaces* 156 (2017) 375, doi: 10.1016/j.colsurfb.2017.05.036
- Balejčíková, L.; Petrenko, V.I.; Avdeev, M.V.; Garamus, V.M.; Almásy, L.; Kopčanský, P., Small-Angle Scattering on Magnetoferritin Nanoparticles, *Journal of Physics: Conference Series* 848 1 (2017) 12011, doi: 10.1088/1742-6596/848/1/012011
- Barriobero-Vila, P.; Gussone, J.; Haubrich, J.; Sandlöbes, S.; Da Silva, J.C.; Cloetens, P.; Schell, N.; Requena, G., Inducing stable $\alpha + \beta$ microstructures during selective laser melting of Ti-6Al-4V using intensified intrinsic heat treatments, *Materials* 10 3 (2017) 268, doi: 10.3390/ma10030268
- Benafan, O.; Garg, A.; Noebe, R.D.; Skorpenske, H.D.; An, K.; Schell, N., Deformation characteristics of the intermetallic alloy 60NiTi, *Intermetallics* 82 (2017) 40, doi: 10.1016/j.intermet.2016.11.003
- Blass, J.; Brunke, J.; Emmerich, F.; Przybylski, C.; Garamus, V.M.; Feoktystov, A.; Bennewitz, R.; Wenz, G.; Albrecht, M., Interactions between shape-persistent macromolecules as probed by AFM, *Beilstein Journal of Organic Chemistry* 13 (2017) 938, doi: 10.3762/bjoc.13.95
- Brokmeier, H.-G., Hot rectangular extrusion of six Mg-alloys via neutron diffraction, *Advanced Engineering Materials* (2017) 1700234, doi: 10.1002/adem.201700234
- Cao, H.; Guo, J.; Chang, F.; Pistidda, C.; Zhou, W.; Zhang, X.; Santoru, A.; Wu, H.; Schell, N.; Niewa, R.; Chen, P.; Klassen, T.; Dornheim, M., Transition and Alkali Metal Complex Ternary Amides for Ammonia Synthesis and Decomposition, *Chemistry - A European Journal* 23 41 (2017) 9766, doi: 10.1002/chem.201702728
- Chang, H.; Zheng, M.; Brokmeier, H.G.; Gan, W., Interface Characterization of the Mg/Al Laminated Composite Fabricated by Accumulative Roll Bonding at Ambient Temperature, *Jinshu Xuebao/Acta Metallurgica Sinica* 53 2 (2017) 220, doi: 10.11900/0412.1961.2016.00168
- Chen, Y.H.; Rogström, L.; Ostach, D.; Ghafour, N.; Johansson-Jöesaar, M.P.; Schell, N.; Birch, J.; Odén, M., Effects of decomposition route and microstructure on h-AlN formation rate in TiCrAlN alloys, *Journal of Alloys and Compounds* 691 (2017) 1024, doi: 10.1016/j.jallcom.2016.08.299
- Chen, Y.H.; Rogström, L.; Roa, J.J.; Zhu, J.Q.; Schramm, I.C.; Johnson, L.J.S.; Schell, N.; Mücklich, F.; Anglada, M.J.; Odén, M., Thermal and mechanical stability of wurtzite-ZrAlN/cubic-TiN and wurtzite-

ZrAlN/cubic-ZrN multilayers, *Surface and Coatings Technology* 324 (2017) 328, doi: 10.1016/j.surfcoat.2017.05.055

De Vincentis, N.S.; Avalos, M.C.; Benatti, E.A.; Kliauga, A.; Brokmeier, H.G.; Bolmaro, R.E., XRD and EBSD analysis of anisotropic microstructure development in cold rolled F138 stainless steel, *Materials Characterization* 123 (2017) 137, doi: 10.1016/j.matchar.2016.11.018

De Vincentis, N.S.; Avalos, M.C.; Kliauga, A.; Brokmeier, H.G.; Bolmaro, R.E., Strain path dependence of anisotropic microstructure evolution on low Stacking Fault Energy F138 steel, *Materials Science and Engineering A* 698 (2017) 1, doi: 10.1016/j.msea.2017.05.033

Dev, B.N.; Banu, N.; Fassbender, J.; Grenzer, J.; Schell, N.; Bischoff, L.; Groetzschel, R.; McCord, J., Ion irradiation effects on a magnetic Si/Ni/Si trilayer and lateral magnetic–nonmagnetic multistrip patterning by focused ion beam, *Indian Journal of Physics* 91 10 (2017) 1167, doi: 10.1007/s12648-017-1025-z

Diederichs, A.M.; Thiel, F.; Fischer, T.; Lienert, U.; Pantleon, W., Monitoring microstructural evolution in-situ during cyclic deformation by high resolution reciprocal space mapping, *Journal of Physics: Conference Series* 843 1 (2017) 12031, doi: 10.1088/1742-6596/843/1/012031

Drescher, S.; Garamus, V.M.; Garvey, C.J.; Meister, A.; Blume, A., Aggregation behaviour of a single-chain, phenylene-modified bolalipid and its miscibility with classical phospholipids, *Beilstein Journal of Organic Chemistry* 13 (2017) 995, doi: 10.3762/bjoc.13.99

Engelkes, K., Friedrich, F., Hammel, J.U., Haas, A., A simple setup for episcopic microtomy and a digital image processing workflow to acquire high-quality volume data and 3D surface models of small vertebrates, *Zoomorphology online first* (2017), doi: 10.1007/s00435-017-0386-3

Erdely, P.; Staron, P.; Maawad, E.; Schell, N.; Klose, J.; Clemens, H.; Mayer, S., Design and control of microstructure and texture by thermomechanical processing of a multi-phase TiAl alloy, *Materials and Design* 131 (2017) 286, doi: 10.1016/j.matdes.2017.06.030

Erdely, P.; Staron, P.; Maawad, E.; Schell, N.; Klose, J.; Mayer, S.; Clemens, H., Effect of hot rolling and primary annealing on the microstructure and texture of a β -stabilised γ -TiAl based alloy, *Acta Materialia* 126 (2017) 145, doi: 10.1016/j.actamat.2016.12.056

Fan, J.; Li, J.; Zhang, Y.; Kou, H.; Ghanbaja, J.; Gan, W.; Germain, L.; Esling, C., The origin of striation in the metastable β phase of titanium alloys observed by transmission electron microscopy, *Journal of Applied Crystallography* 50 3 (2017) 795, doi: 10.1107/S1600576717004150

Fernández, Gutiérrez, R.; Sket, F.; Maire, E.; Wilde, F.; Boller, E.; Requena, G., Effect of solution heat treatment on microstructure and damage accumulation in cast Al-Cu alloys, *Journal of Alloys and Compounds* 697 (2017) 341, doi: 10.1016/j.jallcom.2016.11.280

Friese, K.; Holderer, O.; Senyshyn, A.; Gilles, R.; Müller, M., MLZ Conference: Neutrons for Energy, *Neutron News* 28 1 (2017) 4, doi: 10.1080/10448632.2016.1265315

Fronczek, D.M.; Chulist, R.; Litynska-Dobrzynska, L.; Kac, S.; Schell, N.; Kania, Z.; Szulc, Z.; Wojewoda-Budka, J., Microstructure and kinetics of intermetallic phase growth of three-layered A1050/AZ31/A1050 clads prepared by explosive welding combined with subsequent annealing, *Materials and Design* 130 (2017) 120, doi: 10.1016/j.matdes.2017.05.051

Fronczek, D.M.; Chulist, R.; Litynska-Dobrzynska, L.; Lopez, G.A.; Wierzbicka-Miernik, A.; Schell, N.; Szulc, Z.; Wojewoda-Budka, J., Microstructural and Phase Composition Differences Across the

Interfaces in Al/Ti/Al Explosively Welded Clads, *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science* 48 9 (2017) 4154, doi: 10.1007/s11661-017-4169-8

Gan, W.; Hofmann, M.; Ventske, V.; Randau, C.; Huang, Y.; Kriele, A.; Brokmeier, H.-G.; Mueller, M., Microstructure and residual stress in rotary friction welded dissimilar metals of AA7020 aluminium alloy with 316L steel, *Materials Science Forum* 879 (2017) 572, doi: 10.4028/www.scientific.net/MSF.879.572

Gan, W.M.; Huang, Y.D.; Xu, Y.L.; Hofmann, M.; Kainer, K.U.; Hort, N., In situ tensile texture analysis of a new Mg-RE alloy, *Materials Science Forum* 879 (2017) 779, doi: 10.4028/www.scientific.net/MSF.879.779

Gancarz, T., Bobrowski, P., Pawlak, S., Schell, N., Chulist, R., Janik, K., Wetting of Sn-Zn-Ga and Sn-Zn-Na alloys on Al and Ni substrate, *Open access Journal of Electronic Materials* 47 1 (2017) 49, doi: 10.1007/s11664-017-5791-3

Garcés, G.; Oñorbe, E.; Gan, W.; Máthis, K.; Tolnai, D.; Horváth, K.; Pérez, P.; Adeva, P., Evolution of twinning in extruded AZ31 alloy with bimodal grain structure, *Materials Characterization* 126 (2017) 116, doi: 10.1016/j.matchar.2017.02.017

Garces, G.; Perez, P.; Cabeza, S.; Kabra, S.; Gan, W.; Adeva, P., Effect of Extrusion Temperature on the Plastic Deformation of an Mg-Y-Zn Alloy Containing LPSO Phase Using In Situ Neutron Diffraction, *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science* (2017) 1, doi: 10.1007/s11661-017-4284-6

Gdovinová, V.; Tomašovičová, N.; Batko, I.; Batková, M.; Balejčíková, L.; Garamus, V.M.; Petrenko, V.I.; Avdeev, M.V.; Kopčanský, P., Interaction of magnetic nanoparticles with lysozyme amyloid fibrils, *Journal of Magnetism and Magnetic Materials* 431 (2017) 8, doi: 10.1016/j.jmmm.2016.09.035

Golub, M.; Combet, S.; Wieland, D.C.F.; Soloviov, D.; Kuklin, A.; Lokstein, H.; Schmitt, F.-J.; Olliges, R.; Hecht, M.; Eckert, H.-J.; Pieper, J., Solution structure and excitation energy transfer in phycobiliproteins of *Acaryochloris marina* investigated by small angle scattering, *Biochimica et Biophysica Acta - Bioenergetics* 1858 4 (2017) 318, doi: 10.1016/j.bbabi.2017.01.010

Golub, M.; Hejazi, M.; Kölsch, A.; Lokstein, H.; Wieland, D.C.F.; Zouni, A.; Pieper, J., Solution structure of monomeric and trimeric photosystem I of *Thermosynechococcus elongatus* investigated by small-angle X-ray scattering, *Photosynthesis Research* 133 1-3 (2017) 163, doi: 10.1007/s11120-017-0342-6

Greving, I.; Ogurreck, M.; Marschall, F.; Last, A.; Wilde, F.; Dose, T.; Burmester, H.; Lottermoser, L.; Müller, M.; David, C.; Beckmann, F., Nanotomography endstation at the P05 beamline: Status and perspectives, *Journal of Physics: Conference Series* 849 1 (2017) 12056, doi: 10.1088/1742-6596/849/1/012056

Griewatsch, K.; Müller, M.; Unruh, T., German Neutron Scattering Conference in Kiel, *Neutron News* 28 2 (2017) 5, doi: 10.1080/10448632.2017.1308184

Grigor'eva, N.A.; Eckerlebe, H.; Eliseev, A.A.; Lukashin, A.V.; Napol'skii, K.S.; Kraje, M.; Grigor'ev, S.V., Structural and magnetic properties of the nanocomposite materials based on a mesoporous silicon dioxide matrix, *Journal of Experimental and Theoretical Physics* 124 3 (2017) 476, doi: 10.1134/S106377611702011X

Gussone, J.; Garces, G.; Haubrich, J.; Stark, A.; Hagedorn, Y.-C.; Schell, N.; Requena, G., Microstructure stability of γ -TiAl produced by selective laser melting, *Scripta Materialia* 130 (2017) 110, doi: 10.1016/j.scriptamat.2016.11.028

Henne, S.; Friedrich, F.; Hammel, J.U.; Sombke, A.; Schmidt-Rhaesa, A., Reconstructing the anterior part of the nervous system of *Gordius aquaticus* (Nematomorpha, cycloneuralia) by a multimethodological approach, *Journal of Morphology* 278 1 (2017) 106, doi: 10.1002/jmor.20623

Hipp, A., Moosmann, J., Herzen, J., Hammel, J. U., Schreyer, A., Beckmann, F., High-resolution grating interferometer for phase-contrast imaging at PETRA III, *Proceedings of SPIE - Developments in X-Ray Tomography XI* 10391 (2017) 1039108, doi: 10.1117/12.2273892

Hrkac, S.B.; Koops, C.T.; Abes, M.; Krywka, C.; Müller, M.; Burghammer, M.; Sztucki, M.; Dane, T.; Kaps, S.; Mishra, Y.K.; Adelung, R.; Schmalz, J.; Gerken, M.; Lage, E.; Kirchhof, C.; Quandt, E.; Magnussen, O.M.; Murphy, B.M., Tunable Strain in Magnetoelectric ZnO Microrod Composite Interfaces, *ACS Applied Materials and Interfaces* 9 30 (2017) 25571, doi: 10.1021/acsami.6b15598

Hu, Y.; Li, Z.; Yang, B.; Qian, S.; Gan, W.; Gong, Y.; Li, Y.; Zhao, D.; Liu, J.; Zhao, X.; Zuo, L.; Wang, D.; Du, Y., Combined caloric effects in a multiferroic Ni-Mn-Ga alloy with broad refrigeration temperature region, *APL Materials* 5 4 (2017) 46103, doi: 10.1063/1.4980161

Hua, K., Zhang, Y., Kou, H., Li, J., Gan, W., Funderberger, J.-J., Esling, C., Composite structure of a phase in metastable β Ti alloys induced by lattice strain during β to α phase transformation, *Acta Materialia* 132 (2017) 307, doi: <http://dx.doi.org/10.1016/j.actamat.2017.04.051>

Hua, K., Zhang, Y., Kou, H., Li, J., Gan, W., Funderberger, J.-J., Esling, C., Reply to comments on “composite structure of α phase in metastable β Ti alloys induced by lattice strain during β to α phase transformation” by Prof. D. Banerjee, *Scripta Materialia* 141 (2017) 148, doi: <http://dx.doi.org/10.1016/j.scriptamat.2017.08.010>

Karge, L., Gilles, R., Busch, S., Calibrating SANS data for instrument geometry and pixel sensitivity effects: access to an extended Q range, *Journal of Applied Crystallography* 50 5 (2017) 1382, doi: 10.1107/S1600576717011463

Karge, L.; Gilles, R.; Mukherji, D.; Strunz, P.; Beran, P.; Hofmann, M.; Gavilano, J.; Keiderling, U.; Dolotko, O.; Kriele, A.; Neubert, A.; Rösler, J.; Petry, W., The influence of C/Ta ratio on TaC precipitates in Co-Re base alloys investigated by small-angle neutron scattering, *Acta Materialia* 132 (2017) 354, doi: 10.1016/j.actamat.2017.04.029

Kashaev, N.; Ventzke, V.; Horstmann, M.; Chupakhin, S.; Riekehr, S.; Falck, R.; Maawad, E.; Staron, P.; Schell, N.; Huber, N., Effects of laser shock peening on the microstructure and fatigue crack propagation behaviour of thin AA2024 specimens, *International Journal of Fatigue* 98 (2017) 223, doi: 10.1016/j.ijfatigue.2017.01.042

Keppler, J.K.; Martin, D.; Garamus, V.M.; Berton-Carabin, C.; Nipoti, E.; Coenye, T.; Schwarz, K., Functionality of whey proteins covalently modified by allyl isothiocyanate. Part 1 physicochemical and antibacterial properties of native and modified whey proteins at pH 2 to 7, *Food Hydrocolloids* 65 (2017) 130, doi: 10.1016/j.foodhyd.2016.11.016

Kiefer, D.; Gibmeier, J.; Beckmann, F.; Wilde, F., In-situ Monitoring of Laser Surface Line Hardening by Means of Synchrotron X-Ray Diffraction, *RESIDUAL STRESSES 2016: ICRS-10, Materials Research Proceedings* 2 (2017) 467, doi: 10.21741/9781945291173-79

Kliauga, A.M., Sordi, V.L., de Vincentis, N.S., Bolmaro, R.E., Schell, N., and Brokmeier, H.-G., Severe plastic deformation by equal channel angular pressing and rolling: the influence of the deformation path on strain distribution, *Advanced Engineering Materials* (2017) 1700055, doi: 10.1002/adem.201700055

Kornemann, E.; O. Márkus, A. Opolka, T. Zhou, I. Greving, M. Storm, C. Krywka, A. Last, and J. Mohr, Miniaturized compound refractive X-ray zoom lens, *Optics Express* 25 19 (2017) 22455, doi: 10.1364/OE.25.022455

Kozhevnikov, I.V.; Buzmakov, A.V.; Siewert, F.; Tiedtke, K.; Störmer, M.; Samoylova, L.; Sinn, H., Growth of nano-dots on the grazing incidence mirror surface under FEL irradiation: Analytic approach to modeling, *Proceedings of SPIE - The International Society for Optical Engineering* 10236 (2017) 102360D, doi: 10.1117/12.2269371

Kreuzpaintner, W.; Masalovich, S.; Moulin, J.-F.; Wiedemann, B.; Ye, J.; Mayr, S.; Paul, A.; Haese, M.; Pomm, M.; Böni, P., Application of a portable ³He-based polarization insert at a time-of-flight neutron reflectometer, *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment* 848 (2017) 144, doi: 10.1016/j.nima.2016.12.017

Kreuzpaintner, W.; Wiedemann, B.; Stahn, J.; Moulin, J.-F.; Mayr, S.; Mairoser, T.; Schmehl, A.; Herrnberger, A.; Korelis, P.; Haese, M.; Ye, J.; Pomm, M.; Böni, P.; Mannhart, J., In situ Polarized Neutron Reflectometry: Epitaxial Thin-Film Growth of Fe on Cu(001) by dc Magnetron Sputtering, *Physical Review Applied* 7 5 (2017) 54004, doi: 10.1103/PhysRevApplied.7.054004

Kumar, N.; Goel, S.; Jayaganthan, R.; Brokmeier, H.-G., Effect of grain boundary misorientation, deformation temperature and AlFeMnSi-phase on fatigue life of 6082 Al alloy, *Materials Characterization* 124 (2017) 229, doi: 10.1016/j.matchar.2017.01.002

Kumar, N.; Jayaganthan, R.; Brokmeier, H.G., Effect of deformation temperature on precipitation, microstructural evolution, mechanical and corrosion behavior of 6082 Al alloy, *Transactions of Nonferrous Metals Society of China (English Edition)* 27 3 (2017) 475, doi: 10.1016/S1003-6326(17)60055-4

Laipple, D., Wang, L., Rackel, M.W., Stark, A., Schwebke, B., Schreyer, A., and Pyczak, F., Microstructure of gas atomised γ -TiAl based alloy powders, *MRS Advances* (2017) 1, doi: 10.1557/adv.2017.88

Lautner Silke, Claudia Lenz, Jörg Hammel, Julian Moosmann, Michael Kühn, Michele Caselle, Matthias Vogelgesang, Andreas Kopmann, Felix Beckmann, Using SR μ CT to define water transport capacity in *Picea abies*, *Proc. SPIE, Developments in X-Ray Tomography XI* (2017) 1039118, doi: <http://dx.doi.org/10.1117/12.2287221>

Lautner, S., Lenz, C., Hammel, J. U., Moosmann, J., Kühn, M., Caselle, M., Vogelgesang, M., Kopmann, A., Beckmann, F., Using SR μ CT to define water transport capacity in *Picea abies*, *Proceedings of SPIE - Developments in X-Ray Tomography XI* 10391 (2017) 1039118, doi: 10.1117/12.2287221

Li, Y., Pyczak, F., Oehring, M., Wang, L., Paul, J., Lorenz, U., Yao, Z., Thermal Stability of γ' phase in long-term aged Co-Al-W alloys, *Journal of Alloys and Compounds* 729 (2017) 266, doi: 10.1016/j.jallcom.2017.09.157

Li, Z.; Yang, B.; Zou, N.; Zhang, Y.; Esling, C.; Gan, W.; Zhao, X.; Zuo, L., Crystallographic Characterization on Polycrystalline Ni-Mn-Ga Alloys with Strong Preferred Orientation, *Materials* 10(5), 463 (2017), doi: 10.3390/ma10050463

Lindner, S.; Gruhle, K.; Schmidt, R.; Garamus, V.M.; Ramsbeck, D.; Hause, G.; Meister, A.; Sinz, A.; Drescher, S., Azide-Modified Membrane Lipids: Synthesis, Properties, and Reactivity, *Langmuir* 33 20 (2017) 4960, doi: 10.1021/acs.langmuir.7b00228

Martinez, Sanchez, A.H.; Feyerabend, F.; Laipple, D.; Willumeit-Römer, R.; Weinberg, A.; Luthringer, B.J.C., Chondrogenic differentiation of ATDC5-cells under the influence of Mg and Mg alloy degradation, *Materials Science and Engineering C* 72 (2017) 378, doi: 10.1016/j.msec.2016.11.062

Mattauch, S.; Ioffe, A.; Lott, D.; Bottyán, L.; Daillant, J.; Markó, M.; Menelle, A.; Sajti, S.; Veres, T., HERITAGE: the concept of a giant flux neutron reflectometer for the exploration of 3-d structure of free-liquid and solid interfaces in thin films, *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment* 841 (2017) 34, doi: 10.1016/j.nima.2016.09.043

Maugeri, L.; Busch, S.; McLain, S.E.; Pardo, L.C.; Bruni, F.; Ricci, M.A., Structure-activity relationships in carbohydrates revealed by their hydration, *Biochimica et Biophysica Acta - General Subjects* 1861 6 (2017) 1486, doi: 10.1016/j.bbagen.2016.12.017

Merk, V.; Berg, J.K.; Krywka, C.; Burgert, I., Oriented crystallization of barium sulfate confined in hierarchical cellular structures, *Crystal Growth and Design* 17 2 (2017) 677, doi: 10.1021/acs.cgd.6b01517

Molcan, M.; Petrenko, V.I.; Avdeev, M.V.; Ivankov, O.I.; Garamus, V.M.; Skumiel, A.; Jozefczak, A.; Kubovcikova, M.; Kopcansky, P.; Timko, M., Structure characterization of the magnetosome solutions for hyperthermia study, *Journal of Molecular Liquids* 235 (2017) 11, doi: 10.1016/j.molliq.2016.12.054

Moosmann, J., Zeller-Plumhoff, B., Wieland, D.C.F., Galli, S., Krüger, D., Dose, T., Burmester, H., Wilde, F., Bech, M., Peruzzi, N., Wiese, B., Hipp, A., Beckmann, F., Hammel, J., Willumeit-Römer, R., Biodegradable magnesium-based implants in bone studied by synchrotron radiation microtomography, *Proceedings of SPIE - Developments in X-Ray Tomography XI* 10391 (2017) 1039100, doi: 10.1117/12.2275121

Morak, R., Braxmeier, S., Ludescher, L., Putz, F., Busch, S., Hüsing, N., Reichenauer, G., Paris, O., Qu-antifying adsorption-induced deformation of nanoporous materials on different length scales, *Journal of Applied Crystallography* 50 5 (2017) 1404, doi: 10.1107/S1600576717012274

Müller, M., de Sena Oliveira, I., Allner, S., Ferstl, S., Bidola, P., Mechlem, K., Fehringer, A., Hehn, L., Dierolf, M., Achterhold, K., Gleich, B., Hammel, J.U., Jahn, H., Mayer, G., Pfeiffer, F., Myoanatomy of the velvet worm leg revealed by laboratory-based nanofocus X-ray source tomography, *PNAS - Proceedings of the National Academy of Sciences of the United States of America* 114 47 (2017) 12378, doi: 10.1073/pnas.1710742114

Oberthuer, D.; Knoška, J.; Wiedorn, M.O.; Beyerlein, K.R.; Bushnell, D.A.; Kovaleva, E.G.; Heymann, M.; Gumprecht, L.; Kirian, R.A.; Barty, A.; Mariani, V.; Tolstikova, A.; Adriano, L.; Awel, S.; Barthelmess, M.; Dörner, K.; Xavier, P.L.; Yefanov, O.; James, D.R.; Nelson, G.; Wang, D.; Calvey, G.; Chen, Y.; Schmidt, A.; Szczepek, M.; Frielingsdorf, S.; Lenz, O.; Snell, E.; Robinson, P.J.; Šarler, B.; Belšak, G.; Maček, M.; Wilde, F.; Aquila, A.; Boutet, S.; Liang, M.; Hunter, M.S.; Scheerer, P.; Lipscomb, J.D.; Weierstall, U.; Kornberg, R.D.; Spence, J.C.H.; Pollack, L.; Chapman, H.N.; Bajt, S., Double-flow focused liquid injector for efficient serial femtosecond crystallography, *Scientific Reports* 7 (2017) 44628, doi: 10.1038/srep44628

Oliveira, J.P., Miranda, R.M., and Braz Fernandes, F.M., Welding and joining of NiTi shape memory alloys: a review, *Progress in Materials Science* 88 (2017) 412, doi: 10.1016/j.pmatsci.2017.04

Oliveira, J.P.; Duarte, J.F.; Inácio, P.; Schell, N.; Miranda, R.M.; Santos, T.G., Production of Al/NiTi composites by friction stir welding assisted by electrical current, *Materials and Design* 113 (2017) 311, doi: 10.1016/j.matdes.2016.10.038

Paul, J.D.H.; Oehring, M.; Appel, F.; Pyczak, F., Depth resolved near-surface residual stresses in γ -based TiAl before and after high-temperature exposure, *Intermetallics* 84 (2017) 103, doi: 10.1016/j.intermet.2016.12.014

Prylutska, S.; Panchuk, R.; Gołtuński, G.; Skivka, L.; Prylutsky, Y.; Hurmach, V.; Skorohyd, N.; Borowik, A.; Woziwodzka, A.; Piosik, J.; Kyzyma, O.; Garamus, V.; Bulavin, L.; Evstigneev, M.; Buchelnikov, A.; Stoika, R.; Berger, W.; Ritter, U.; Scharff, P., C60 fullerene enhances cisplatin anticancer activity and overcomes tumor cell drug resistance, *Nano Research* 10 2 (2017) 652, doi: 10.1007/s12274-016-1324-2

Raj, A.; Wang, M.; Zander, T.; Wieland, D.C.F.; Liu, X.; An, J.; Garamus, V.M.; Willumeit-Römer, R.; Fielden, M.; Claesson, P.M.; Dédinaité, A., Lubrication synergy: Mixture of hyaluronan and dipalmitoylphosphatidylcholine (DPPC) vesicles, *Journal of Colloid and Interface Science* 488 (2017) 225, doi: 10.1016/j.jcis.2016.10.091

Rebelo Kornmeier, J.; Gan, W.M.; Marques, M.J.; Batista, A.C.; Hofmann, M.; Loureiro, A., Texture characterization of stainless steel cladded layers of process vessels, *Materials Science Forum* 879 (2017) 1588, doi: 10.4028/www.scientific.net/MSF.879.1588

Rebelo-Kornmeier J., Hofmann M., Wei Min Gan, Randau C., Braun K., Zeitelhack K., Defendi I., Krueger, J., Faulhaber E., Brokmeier, H.G., New Developments of the Materials Science Diffractometer STRESS-SPEC, *Materials Science Forum* 905 (2017) 151, doi: 10.4028/www.scientific.net/msf.905.151

Rodrigues, P., Braz Fernandes, F.M., Paula, A.S., Oliveira, J.P., Ribeiro, S.B., Teixeira, E.N., and Schell, N., Microstructural characterization of NiTi shape memory alloy produced by rotary hot forging, *Powder Diffraction* 32 (2017) S201, doi: 10.1017/S0885715617000549

Ruett, U.; Dippel, A.-C.; Beckmann, F.; Lienert, U.; Liermann, H.-P.; Zimmermann, M.V.; Schroer, C.G., PETRA IV Workshop on Research with High-Energy X-rays at Ultra-Low Emittance Sources, *Synchrotron Radiation News* 30 3 (2017) 55, doi: 10.1080/08940886.2017.1316138 n

Rumancev, C., von Gundlach, A.R., Baier, S., Wittstock, A., Shi, J., Benzi, F., Senkbeil, T., Stuhr, S., Garamus, V.M., Grunwaldt, J.-D., Rosenhahn, A., Morphological analysis of cerium oxide stabilized nanoporous gold catalysts by soft X-ray SAXS, *RSC Advances* 7 (2017) 45344, doi: 10.1039/c7ra05396g

Schell, N., Synchrotron-Based Capabilities for Studying Engineering Materials at PETRA-III, *Synchrotron Radiation News* 30 3 (2017) 29, doi: 10.1080/08940886.2017.1316129

Schindler, T.; Schmutzler, T.; Schmiele, M.; Lin, W.; Segets, D.; Peukert, W.; Appavou, M.-S.; Kriele, A.; Gilles, R.; Unruh, T., Changes within the stabilizing layer of ZnO nanoparticles upon washing, *Journal of Colloid and Interface Science* 504 (2017) 356, doi: 10.1016/j.jcis.2017.05.059

"Schmelzle, S., Heethoff, M., Heuveline, V., Lösel, P.,

Becker, J., Beckmann, F., Schluenzen, F., Hammel, J.U., Kopmann, A., Mexner, W., Vogelgesang, M., Jerome, N.T., Betz, O., Beutel, R., Wipfler, B., Blanke, A., Harzsch, S., Hörnig, M., Baumbach, T., van de Kamp, T.", The NOVA project: maximizing beam time efficiency through synergistic analyses of SR μ CT

data, Proceedings of SPIE - Developments in X-Ray Tomography XI 10391 (2017) 103910P, doi: 10.1117/12.2275959

Schuh, B., Völker, B., Todt, J., Schell, N., Perriere, L., Couzinié, J.P., and Hohenwarter, A., Thermodynamical instability of nanocrystalline, singlephase TiZrNbHfTa alloy and its impact on the mechanical properties, *Acta Materialia* 142 (2017) 201, doi: 10.1016/j.actamat.2017.09.035

Schuster, R., Schafner, E., Schell, N., Kunz, M., and Abart, R., Microstructure of calcite deformed by high-pressure torsion: an x-ray line profile study, *Tectonophysics* 721 (2017) 448, doi: 10.1016/j.tecto.2017.10.015

Siegfried, S.-A.; Sukhanov, A.S.; Altyntbaev, E.V.; Honecker, D.; Heinemann, A.; Tsvyashchenko, A.V.; Grigoriev, S.V., Spin-wave dynamics in the helimagnet FeGe studied by small-angle neutron scattering, *Physical Review B* 95 13 (2017) 134415, doi: 10.1103/PhysRevB.95.134415

Škvarla, J.; Raya, R.K.; Uchman, M.; Zedník, J.; Procházka, K.; Garamus, V.M.; Meristoudi, A.; Pispas, S.; Štěpánek, M., Thermoresponsive behavior of poly(N-isopropylacrylamide)s with dodecyl and carboxyl terminal groups in aqueous solution: pH-dependent cloud point temperature, *Colloid and Polymer Science* 295 8 (2017) 1343, doi: 10.1007/s00396-017-4067-z

Smyslov, R. Yu.; K. V. Ezdakova, G. P. Kopitsa, A. K. Khripunov, À. N. Bugrov, A. A. Tkachenko, B. Angelov, V. Pipich, N. K. Szekely, À. À. Baranchikov, E. Latysheva, Yu. O. Chetverikov, V. Haramus, Morphological structure of *Gluconacetobacter xylinus* cellulose and cellulose-based organic-inorganic composite materials, *IOP Conf. Series: Journal of Physics: Conf. Series* 848 (2017) 12017, doi: 10.1088/1742-6596/848/1/012017

Stan-Głowińska, K.; Rogal, Ł.; Góral, A.; Wierzbicka-Miernik, A.; Wojewoda-Budka, J.; Schell, N.; Lityńska-Dobrzyńska, L., Formation of a quasicrystalline phase in Al–Mn base alloys cast at intermediate cooling rates, *Journal of Materials Science* 52 13 (2017) 7794, doi: 10.1007/s10853-017-1011-z

Staron, P., Liu, J., Riekehr, S., Schell, N., Huber, N., Kashaev, N., Müller, M., and Schreyer, A., In-situ experiment for laser beam welding of Ti alloys using high-energy x-rays, *Materials Science Forum: Mechanical Stress Evaluation by Neutrons and Synchrotron Radiation* 905 (2017) 114, doi: 10.1017/S0885715617000549

Staron, P., Liu, J., Riekehr, S., Schell, N., Huber, N., Kashaev, N., Müller, M., Schreyer, A., In situ experiment for laser beam welding of Ti alloys using high-energy X-rays, *Materials Science Forum* 905 (2017) 114, doi: 10.4028/www.scientific.net/MSF.905.114

Staron, P. (Editor); Schreyer, A. (Editor); Clemens, H. (Editor); Mayer, S. (Editor); Yi, S.; Gan, W.; Brokmeier, H.-G., *Texture Analyses by Synchrotron X-rays and Neutrons, Neutrons and Synchrotron Radiation in Engineering Materials Science*, Wiley-VCH Verlag GmbH & Co. KGaA, 2017,; ISBN: 9783527335923; doi: 10.1002/9783527684489.ch10

Staron, P. (Editor); Schreyer, A. (Editor); Clemens, H. (Editor); Mayer, S. (Editor); Pranzas P.K.; Heinemann A, *Small-Angle Neutron Scattering, Neutrons and Synchrotron Radiation in Engineering Materials Science*, Wiley-VCH Verlag GmbH & Co. KGaA, 2017,; ISBN: 9783527335923; doi: 10.1002/9783527684489.ch12

Stebner, F., Szadziowski, R., Rühr, P.T., Singh, H., Hammel, J.U., Kvifte, G.M., Rust, J., Corrigendum: A fossil biting midge (Diptera: Ceratopogonidae) from early Eocene Indian amber with a complex pheromone evaporator, *Scientific Reports* 7 (2017) 41899, doi: 10.1038/srep41899

Stefanescu, I.; Christensen, M.; Fenske, J.; Hall-Wilton, R.; Henry, P.F.; Kirstein, O.; Müller, M.; Nowak, G.; Pooley, D.; Raspino, D.; Rhodes, N.; Šaroun, J.; Schefer, J.; Schooneveld, E.; Sykora, J.; Schweika, W., Neutron detectors for the ESS diffractometers, *Journal of Instrumentation* 12 1 (2017) P01019, doi: 10.1088/1748-0221/12/01/P01019

Storm, M.; Beckmann, F.; Rau, C., Analytical registration of vertical image drifts in parallel beam tomographic data, *Optics Letters* 42 23 (2017) 4982, doi: 10.1364/OL.42.004982

Subroto, T.; Mendis, C.L.; D'Elia, F.; Szakacs, G.; Fife, J.L.; Hort, N.; Kainer, K.U.; Tolnai, D., 3D Microstructural Evolution on Solidifying Mg–5Nd–5Zn Alloy Observed via In Situ Synchrotron Tomography, *Magnesium Technology 2017* (2017) 605, doi: 10.1007/978-3-319-52392-7_83

Tarnavich, V.; Tartakovskaya, E.; Chetverikov, Y.; Golub, V.; Lott, D.; Chernenkov, Y.; Devishvili, A.; Ukleev, V.; Kapaklis, V.; Oleshkevych, A.; Fedorov, V.; Bairamukov, V.; Vorobiev, A.; Grigoriev, S., Magnetic field induced chirality in Ho/Y multilayers with gradually decreasing anisotropy, *Physical Review B* 96 1 (2017) 14415, doi: 10.1103/PhysRevB.96.014415

Thalmann, P.; Bikis, C.; Hipp, A.; Müller, B.; Hieber, S.E.; Schulz, G., Single and double grating-based X-ray microtomography using synchrotron radiation, *Applied Physics Letters* 110 6 (2017) 61103, doi: 10.1063/1.4975679

Tian, Y.; Lienert, U.; Borgenstam, A.; Fischer, T.; Hedström, P., Martensite formation during incremental cooling of Fe-Cr-Ni alloys: An in-situ bulk X-ray study of the grain-averaged and single-grain behavior, *Scripta Materialia* 136 (2017) 124, doi: 10.1016/j.scriptamat.2017.04.020

Tolnai, D.; Kaercher, T.; Buzolin, R.; Subroto, T.; D'Elia, F.; Gavras, S.; Stark, A.; Schell, N.; Hort, N.; Kainer, K.U., Effect of the Zn Content on the Compression Behaviour of Mg5Nd(Zn): An In Situ Synchrotron Radiation Diffraction Study, *MAGNESIUM TECHNOLOGY 2017, Minerals Metals & Materials Series* (2017) 675, doi: 10.1007/978-3-319-52392-7_93

Victoria Kononikhina, Andreas Stark, Weimin Gan, Andreas Schreyer, Florian Pyczak, Ordering and disordering of β/β_0 -phase in γ -TiAl based alloys investigated by neutron diffraction, *MRS Advances* (2017) 1, doi: 10.1557/adv.2017.145

Vieweg, A.; Povoden-Karadeniz, E.; Ressel, G.; Prevedel, P.; Wojcik, T.; Mendez-Martin, F.; Stark, A.; Keckes, J.; Kozeschnik, E., Phase evolution and carbon redistribution during continuous tempering of martensite studied with high resolution techniques, *Materials & Design* 136 (2017) 214, doi: 10.1016/j.matdes.2017.09.065

"Wagner, J.A.; Patil, S.P.; Greving, I.; Lämmel, M.; Gkagkas, K.; Seydel, T.; Müller, M.; Markert, B.; Gräter, F.", "Stress-induced long-range ordering in spider silk", *Scientific Reports* 7 (2017) 15273, doi: 10.1038/s41598-017-15384-8

Wang, K.; Hartig, C.; Blankenburg, M.; Müller, M.; Günther, R.; Weissmüller, J., Local flow stresses in interpenetrating-phase composites based on nanoporous gold — In situ diffraction, *Scripta Materialia* 127 (2017) 151, doi: 10.1016/j.scriptamat.2016.09.026

Wang, L.; Lorenz, U.; Münch, M.; Stark, A.; Pyczak, F., Influence of alloy composition and thermal history on carbide precipitation in γ -based TiAl alloys, *Intermetallics* 89 (2017) 32, doi: 10.1016/j.intermet.2017.05.006

Wang, L.; Zenk, C.; Stark, A.; Felfer, P.; Gabrisch, H.; Göken, M.; Lorenz, U.; Pyczak, F., Morphology evolution of Ti₃AlC carbide precipitates in high Nb containing TiAl alloys, *Acta Materialia* 137 (2017) 36, doi: 10.1016/j.actamat.2017.07.018

- Wieland, D.C.F.; Zander, T.; Garamus, V.M.; Krywka, C.; Dedinaite, A.; Claesson, P.; Willumeit-Römer, R., Complex solutions under shear and pressure: A rheometer setup for X-ray scattering experiments, *Journal of Synchrotron Radiation* 24 3 (2017) 646, doi: 10.1107/S1600577517002648
- Wierzbicka-Miernik, A.; Wojewoda-Budka, J.; Miernik, K.; Litynska-Dobrzynska, L.; Schell, N., Characteristics of intermetallic phases in Cu/(Sn,Ni) diffusion couples annealed at 220 °C, *Journal of Alloys and Compounds* 693 (2017) 1102, doi: 10.1016/j.jallcom.2016.09.147
- Wilhelm, J.; Seidlmayer, S.; Keil, P.; Schuster, J.; Kriele, A.; Gilles, R.; Jossen, A., Cycling capacity recovery effect: A coulombic efficiency and post-mortem study, *Journal of Power Sources* 365 (2017) 327, doi: 10.1016/j.jpowsour.2017.08.090
- Witte, K.; Bodnar, W.; Schell, N.; Fulda, G.; Burkel, E., Phase transformations of stoichiometric mixtures of hematite and iron under FAST conditions, *Journal of Alloys and Compounds* 724 (2017) 728, doi: 10.1016/j.jallcom.2017.07.089
- Woźniak, E.; Špírková, M.; Šlouf, M.; Garamus, V.M.; Šafaříková, M.; Šafařík, I.; Štěpánek, M., Stabilization of aqueous dispersions of poly(methacrylic acid)-coated iron oxide nanoparticles by double hydrophilic block polyelectrolyte poly(ethylene oxide)-block-poly(N-methyl-2-vinylpyridinium iodide), *Colloids and Surfaces A: Physicochemical and Engineering Aspects* 514 (2017) 32, doi: 10.1016/j.colsurfa.2016.11.044
- Yu, Z.; Huang, Y.; Gan, W.; Zhong, Z.; Hort, N.; Meng, J., Effects of extrusion ratio and annealing treatment on the mechanical properties and microstructure of a Mg–11Gd–4.5Y–1Nd–1.5Zn–0.5Zr (wt%) alloy, *Journal of materials science* 52(11), 6670 (2017) [10.1007/s10853-017-0902-3
- Zdora, M.-C.; Vila-Comamala, J.; Schulz, G.; Khimchenko, A.; Hipp, A.; Cook, A.C.; Dilg, D.; David, C.; Grünzweig, C.; Rau, C.; Thibault, P.; Zanette, I., X-ray phase microtomography with a single grating for high-throughput investigations of biological tissue, *Biomedical Optics Express* 8 2 (2017) 1257, doi: 10.1364/BOE.8.001257
- Zeller-Plumhoff, B., Helmholz, H., Feyerabend, F., Dose, T., Wilde, F., Hipp, A., Beckmann, F.; Willumeit-Römer, R., Hammel, J.U., Quantitative characterization of degradation processes in situ by means of a bioreactor coupled flow chamber under physiological conditions using time-lapse SR μ CT, *Materials and Corrosion* (2017) 1, doi: 10.1002/maco.201709514
- Zeller-Plumhoff, B.; Roose, T.; Katsamenis, O.L.; Mavrogordato, M.N.; Torrens, C.; Schneider, P.; Clough, G.F., Phase contrast synchrotron radiation computed tomography of muscle spindles in the mouse soleus muscle, *Journal of Anatomy* 230 6 (2017) 859, doi: 10.1111/joa.12606
- Zhang, X.X.; Wang, D.; Xiao, B.L.; Andrä, H.; Gan, W.M.; Hofmann, M.; Ma, Z.Y., Enhanced multiscale modeling of macroscopic and microscopic residual stresses evolution during multi-thermo-mechanical processes, *Materials and Design* 115 (2017) 364, doi: 10.1016/j.matdes.2016.11.070
- Zhong, Y.; Ostach, D.; Scholz, M.; Epp, S.W.; Techert, S.; Schlichting, I.; Ullrich, J.; Krasniqi, F.S., Hot carrier relaxation in CdTe via phonon-plasmon modes, *JOURNAL OF PHYSICS-CONDENSED MATTER* 29 9 (2017) 95701, doi: 10.1088/1361-648X/aa5478
- Ziegler, A.; Neues, F.; Janáček, J.; Beckmann, F.; Epple, M., Mineral in skeletal elements of the terrestrial crustacean *Porcellio scaber*: SR μ CT of function related distribution and changes during the moult cycle, *Arthropod Structure and Development* 46 1 (2017) 63, doi: 10.1016/j.asd.2016.05.004

Zimmer, O.; Jouve, H.M.; Stuhmann, H.B., Time-resolved proton polarisation (TPP) images tyrosyl radical sites in bovine liver catalase, *Journal of Physics: Conference Series* 848 1 (2017) 12002, doi: 10.1088/1742-6596/848/1/012002

Zinth, V.; von Lüders, C.; Wilhelm, J.; Erhard, S.V.; Hofmann, M.; Seidlmayer, S.; Rebelo-Kornmeier, J.; Gan, W.; Jossen, A.; Gilles, R., Inhomogeneity and relaxation phenomena in the graphite anode of a lithium-ion battery probed by in situ neutron diffraction, *Journal of Power Sources* 361 (2017) 54, doi: 10.1016/j.jpowsour.2017.06.060

Zobkalo, I., Gavrilov, S., Matveev, V., Fenske, J., New POLDI – project of reincarnation of a polarized neutron diffractometer at the reactor PIK, *Journal of Physics: Conf. Series* 862 (2017) 12031, doi: 10.1088/1742-6596/862/1/012031

Zou, A.; Li, Y.; Chen, Y.; Angelova, A.; Garamus, V.M.; Li, N.; Drechsler, M.; Angelov, B.; Gong, Y., Self-assembled stable sponge-type nanocarriers for *Brucea javanica* oil delivery, *Colloids and Surfaces B: Biointerfaces* 153 (2017) 310, doi: 10.1016/j.colsurfb.2017.02.031

Zou, A.; Zhao, X.; Handge, U.A.; Garamus, V.M.; Willumeit-Römer, R.; Yin, P., Folate receptor targeted bufalin/ β -cyclodextrin supramolecular inclusion complex for enhanced solubility and anti-tumor efficiency of bufalin, *Materials Science and Engineering C* 78 (2017) 609, doi: 10.1016/j.msec.2017.04.094