

PUBLIKATIONEN, KONFERENZBEITRÄGE, VORTRÄGE  
UND PREISE (1997-2018)

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**Veröffentlichungen in wissenschaftlichen Journalen**

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- *Exploiting Dynamic Opening of Apertures in Partially Fluorinated MOF for Enhancing H<sub>2</sub> Desorption Temperature and Isotope Separation*, L. Zhang, S. Jee, J. Park, M. Jung, D. Wallacher, A. Franz, W. Lee, M. Yoon, K.M. Choi, M. Hirscher, H. Oh, accepted in *J. Materials Chemistry A* (2019)
- *Experimental Evidence of Confined Methane Hydrate in Hydrophilic and Hydrophobic Model Carbons*, M.E. Casco, E. Zhang, S. Grätz, S. Krause, V. Bon, D. Wallacher, N. Grimm, D. Többens, T. Hauss, and L. Borchardt, *J. Phys. Chem. C* 123, 24071 (2019)
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- *An All-in-one Sample Holder for Macromolecular X-ray Crystallography with Minimal Background Scattering*, C.G. Feiler, D. Wallacher, M.S. Weiss *J. of Visualized Experiments JOVE* 149 (2019)
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*method for wide-angle X-ray scattering*, F. Badaczewski, M.O. Loeh, T. Pfaff, S. Dobrotka, D. Wallacher, D. Clemens, J. Metz, B.M. Smarsly, Carbon 141, 169 (2019)

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- Dissertation: „Porenkondensierte Materie in der Nähe des Fest-Flüssig-Dampf-Tripelpunktes - Thermodynamische Untersuchungen an Adsorbaten in nanoskaligen Poren“, Universität des Saarlandes, Saarbrücken 2006
  - Diplomarbeit: „FT-Infrarotspektroskopie an Stickstoff adsorbiert in nanoporösen Gläsern“, Universität des Saarlandes, Saarbrücken 1998
- 

## Vorträge und Konferenzbeiträge

- 10<sup>th</sup> International workshop on sample environment, Berlin, 2018, Talk: *Sample Environment at BESSY-II: Gas Atmospheres and More ...*
- 10<sup>th</sup> International workshop on sample environment, Berlin, 2018, Poster: *Cryostat for High-Resolution X-ray Emission spectroscopy*
- SNI 2018 German Conference for Research with Synchrotron Radiation, Neutrons and Ion Beams at Large Facilities, München-Garching 2018, Poster: *Specialized Sample Environment at BESSY-II*
- 30<sup>th</sup> European Crystallographic Meeting, 28<sup>th</sup> August - 1<sup>st</sup> September 2016, Congress Center Basel, Switzerland: *FALCON - A Laue diffractometer for ambient and non-ambient neutron structural analysis*, M. Tovar, L. Diestel, H.-J. Bleif, K. Fritsch, K. Habicht, D. Wallacher, G.N. Iles and S. Schorr, Acta Cryst A. A72, 415, (2016)
- 30<sup>th</sup> European Crystallographic Meeting, 28<sup>th</sup> August - 1<sup>st</sup> September 2016, Congress Center Basel, Switzerland: *Neutron diffraction on methane and hydrogen hydrates under high pressure*, U. Ranieri, L.E. Bove, S. Klotz, T.C. Hansen, M.M. Koza, P. Gillet, D. Wallacher, A. Falenty, W.F. Kuhs, Acta Cryst A. A72, 415, (2016)
- 8<sup>th</sup> International Workshop on Sample Environment at Neutron Scattering Facilities, Eynsham Hall – Oxfordshire (UK), 2014, Talk: *The next generation humidity chamber for neutron scattering*

- Workshop Innovative Methoden der Sorptionsmessung, Fraunhofer IWS Dresden, 2014, Invited Talk: *In-situ Gasadsorptionsmethoden kombiniert mit Röntgen- und Neutronenstreuung*
- ICNS 2013, Edinburgh (Scotland), 2013, Talk: *Innovations in Sample Environment for Soft Matter Science and Material Research at HZB*
- ESS Science Symposium: Neutrons for Future Energy Strategy, PSI-Switzerland, 2013, Invited Talk: *Dedicated Sample Environment for Energy Research*
- DN 2012, Bonn, 2012, Poster: *Standard, Advanced and Complementary Sample Environment at the Helmholtz-Centre Berlin*
- ESS Science Symposium : Time-resolved, in-situ Chemistry using neutrons, Gothenburg, Sweden 2012, Invited Talk: *Sample Environment and investigations under controlled gas atmospheres and humidity*
- Science and Scientists @ ESS, Berlin, 2012, Poster: *Standard, Advanced and Complementary Sample Environment at the Helmholtz-Centre Berlin*
- PNI in-house research “2nd Soft Matter & Life Science Workshop”, Potsdam 2012, Talk: *Soft Matter SANS Sample Environment at the HZB*
- ESS Science Symposium : The Future of Soft Matter SANS, Lund, Sweden 2012, Poster: *Soft Matter SANS Sample environment at the Helmholtz-Zentrum Berlin*
- 5<sup>th</sup> European Conference on Neutron Scattering, Prague, 2011, Talk: *In-situ Gas Adsorption Techniques in Neutron Scattering*
- 6<sup>th</sup> International workshop on sample environment, Munich, 2010, Talk: *Multi-purpose gas handling for automated in-situ gas adsorption measurements*
- ICNS 2009, Knoxville (Tennessee), 2009, Invited Talk: *Methods and Instrumentation for Neutron Scattering combined with In-Situ Gas Adsorption*
- 21. Deutsche Zeolith-Tagung, Kiel, 2009, Poster: *Combined Neutron Scattering and Gas Adsorption at the Berlin Neutron Scattering Centre*
- MOF08 - 1st International Conference on Metal Organic Frameworks, Augsburg 2008, Poster

- DN 2008, München, 2008, Poster: *Neutron Scattering under Controlled Gas Atmospheres - The CGA-Sample Environment*
- 20. Deutsche Zeolith-Tagung, Halle, 2008, Poster: In-situ-SANS investigations of C<sub>5</sub>F<sub>12</sub> condensation in mesoporous silicas with a hierarchical pore structure Scattering; Poster: *Experiments under controlled gas pressure: New experimental possibilities for the study of porous materials*
- European Conference on Neutron Scattering (ECNS 2007), Lund, Sweden, 2007, Poster: Sample Environment at BENSC - New Developments on Magnetic Field and Temperature; Poster: *Combined Neutron Scattering and In-situ Gas Adsorption Experiments under controlled PVT-Conditions*
- Fundamental of Adsorption (FOA 9), Giardini Naxos, Italy, 2007, Vortrag: *On the Nitrogen Sorption Mechanism in Silica with hierarchical mesoporosity studied by in-situ Small-Angle Neutron Scattering*
- 19. Deutsche Zeolith-Tagung, Leipzig, 2007, Vortrag: *Combined Neutron Scattering and In-situ Gas Adsorption Experiments under controlled PVT-conditions*
- SNI 2006, Hamburg, 2006, Poster: Probenumgebung für Neutronenstreuung in Kombination mit in situ Gasadsorption unter kontrollierten PVT-Bedingungen
- Berliner Tieftemperatur-Kolloquium, Berlin, 23. Mai 2006, Vortrag: *Neutronendiffraktion an festem <sup>4</sup>He in porösem Glas*
- Dynamics in Confinement 2003, Grenoble, France, 2003, Poster: *Dielectric investigations of some pore condensates*
- Klausurtagung des SFB 277 „Grenzflächenbestimmte Materialien“ , Homburg, November 2001, Vortrag: *Schmelzen von Argon in Nanoporen*
- Dynamics in Confinement, Grenoble, France, 2000, Poster: *Thermodynamics and structure of Ar, N<sub>2</sub>, CO solidified in nanopores*
- DISMOS 6, Garchy, France, 1999, Poster: *Pore condensed molecules*
- DPG-Frühjahrstagung, Münster, 1997, Poster: *Infrarot und Strukturuntersuchungen in nanoporösem Vycor Glas*

## Preise

- Universität des Saarlandes, Saarbrücken, Oktober 2007:  
Dr. Eduard-Martin-Preis für die beste Dissertation im akademisch Jahr 2006 in der  
Naturwissenschaftlich-Technischen Fakultät II der Universität des Saarlandes