

## ALEXANDER JOHS

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### EDUCATION

2005	Graz University of Technology, Austria	Ph.D.	Biophysics
1999	Graz University of Technology, Austria	M.Sc.	Biochemistry and Biotechnology

### PROFESSIONAL POSITIONS

2007 – Present	Postdoctoral Research Associate, Environmental Sciences Division, ORNL.
2005 – 2006	Postdoctoral Research Associate, Institute of Biophysics and Nanosystems, Austrian Academy of Sciences, Graz, AUS.

### PROFESSIONAL SERVICE, AFFILIATIONS, AND HONORS

**Member:** American Crystallographic Association, Austrian Chemical Society, Austrian Society of Biotechnology.

**Honors:** Scientific Highlight, Institute Laue-Langevin, Annual Report, Grenoble, FRA, 2006.

Paper of the Week, Journal of Biological Chemistry 281:19732-19739, 2006.

Graduation with Honors, Ph.D., Graz University of Technology, AUS, 2005.

Award for Best Scientific Presentation, 8<sup>th</sup> International Summer School on Biophysics, Rovinij, HRV, 2003.

### SELECT RECENT PUBLICATIONS

Johs, A., L. Shi, T. Droubay, J.F. Ankner and L. Liang. 2010. Characterization of the decaheme c-type cytochrome OmcA in solution and on hematite surfaces by small angle x-ray scattering and neutron reflectometry. *Biophys. J.* 98:3035-3043.

Guo, H.-B., A. Johs, J.M. Parks, L. Olliff, S.M. Miller, A.O. Summers, L. Liang and J.C. Smith. 2010. Structure and conformational dynamics of the metalloregulator MerR upon binding of Hg(II). *J. Mol. Biol.* 398:555-568.

Wang W., L. Liang, A. Johs, and B. Gu. 2008. Thin films of uniform hematite nanoparticles: control of surface hydrophobicity and self-assembly. *J. Mater. Chem.* 18:5770-5775.

Wang W., L. Liang, A. Johs, J. Ankner, and B. Gu. 2008. Controlled synthesis, manipulation of surface hydrophobicity, and self-assembly of hematite nanocrystals. *Geochim. Cosmochim. Acta* 72:A1001.

Johs A., L. Liang, B. Gu, J. Ankner, and W. Wang. 2008. Application of neutron reflectometry for studies of biomolecular structures and functions at interfaces. IN: *Neutron Applications in Earth, Energy, and Environmental Sciences*. Liang, L., R. Rinaldi, and H. Schober (eds), Springer.

Johs, A., M. Hammel, I. Waldner, R.P. May, P. Laggner, and R. Prassl. 2006. Modular structure of solubilised human apolipoprotein B-100: low resolution model revealed by small angle neutron scattering. *J. Biol. Chem.* 281:19732-19739.

Gamsjäger R., A. Johs, A. Gries, H.J. Gruber, C. Romanin, R. Prassl, and P. Hinterdorfer. 2005. Membrane binding of  $\beta$ 2-glycoprotein I can be described by a two-state reaction model - an atomic force microscopy and surface plasmon resonance study. *Biochem. J.* 389:665-673.

Johs A., M. Hammel, I. Waldner., R.P. May, P. Laggner, and R. Prassl. 2006. Low resolution model of solubilized apolipoprotein-B100. *Atherosclerosis* 7:500.

Johs, A., R. Gamsjäger, H.J. Gruber, C. Romanin, P. Hinterdorfer, A. Gries, and R. Prassl. 2004. Interaction of beta(2)-glycoprotein I with negatively charged phospholipids. *Chem. Phys. Lipids* 130:1.

Laggner P., M. Kriechbaum, M. Rappolt, G. Pabst. H. Amenitsch, A. Johs, K. Lohner, D. Zwegtich, R. Koschuch, and P. Abuja. 2002. Pharmaceutical solid-state characterization by small-and wide-angle X-ray scattering. IN: Solid State Characterization of Pharmaceuticals. Zakrzewski, A. and M. Zakrzewski (eds.), ASSA International.

Johs A., A. Gries, P. Laggner, and R. Prassl. 2002. Structural studies on protein-lipid interactions. Chem. Phys. Lipids 118:86.

#### **COLLABORATORS**

Anne O. Summers, University of Georgia, Athens; Susan M. Miller, University of California, San Francisco; Kevin Weiss, Chemical Sciences Division, ORNL; John F. Ankner, Spallation Neutron Source, ORNL; Liang Shi, Biological Sciences Division, Pacific Northwest National Laboratory; Michal Hammel, Advanced Light Source, Lawrence Berkeley National Laboratory