9th URA International Seminar

DATE NOVEMBER 17th 2017
TIME 14 : 30- 16:00
VENUE AT 50TH ANNIVERSARY HALL CONFERENCE ROOM (2ND FLOOR)

PROF. DR. MIRIJAM ZOBEL

UNIVERSITY of BAYREUTH Department of Chemistry,

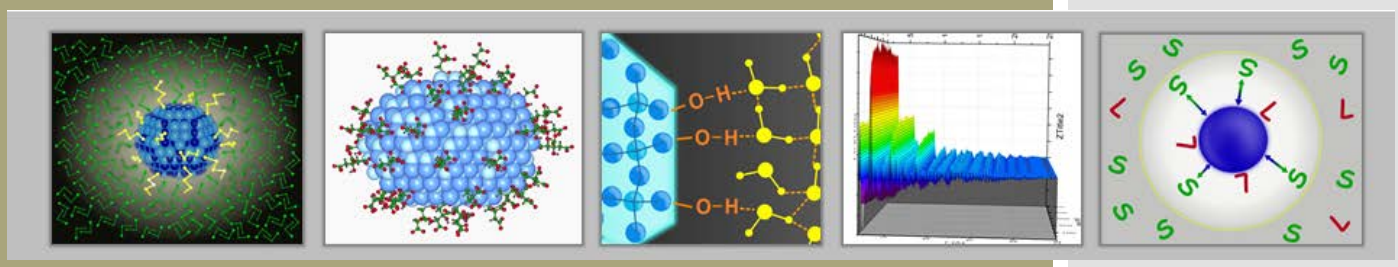
Professor Zobel's research is focused on the mutual dependence of short-range order and physical properties of nanomaterials. This includes the investigation of nanoparticle formation in solution, crystallization processes, nanoparticle-solvent interfaces and structural changes during catalysis. In order to achieve this goal, non-invasive X-ray scattering methods are employed besides supporting spectroscopic techniques.

Professor Zobel has been awarded assistant professor at the age of 31 and holds the professorship for "solid state chemistry and mesostructured materials" at the University Bayreuth (Top Ten in CHE ranking in Chemistry in Germany for over 10 years).

Looking at nanoparticle-solvent interfaces: restructuring of solid and liquid

Abstract

Nanoparticle-solvent interfaces play a key role in a variety of applications ranging from biomedical nanoparticle-enzyme complexes, silver nanoparticles in waste water or noble metal particles in catalysis. Over the last years many techniques emerged to study nanoparticle properties, but only few techniques are capable of characterizing the interfacial nanoparticle and, most importantly, the solvent structure. In this talk, an X-ray scattering technique called pair distribution function will be presented which allows to tackle nanoscopic interfacial restructuring phenomena in-situ at industrially relevant conditions. Insights into the relevance for in-operando catalytic studies will be given.



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Co-organized by

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