



Marie Curie
Early Stage Research Training
INTCHEM
MEST-CT-2005-020681

DFG- Forschergruppe
618

Deutsche
Forschungsgemeinschaft
DFG

Summer college

Non-Covalent Interactions in Chemistry and Biochemistry

21-28 September 2008



Czocha castle, Leśna Poland
<http://www.zamekczocha.pl>



INTCHEM

is an interdisciplinary European early stage training program aiming towards understanding of weak non-covalent interactions between molecules. These interactions govern the formation and structure of condensed phases (clusters, liquids, and crystals), adhesion of molecules on surfaces (SAMs), and they contribute to the structural stability of biomolecules.

main topics in the framework of INTCHEM

- advanced NMR spectroscopy (2D and 3D methods)
- advanced microscopic techniques (AFM, scanning electrochemical microscopy)
- advanced mass spectroscopy (MALDI, ESI etc.)
- modern methods of conventional and solid phase synthesis (DNA- and peptide synthesis)
- time-resolved, high-resolution, and low temperature spectroscopy (laser flash photolysis, tunable laser spectroscopy, step-scan FTIR spectroscopy, matrix isolation spectroscopy)
- electroanalytical methods

with applications in the areas of

- biosensors
- host-guest interactions
- protein-ion interactions
- nanoscale chemical mapping
- interactions in model peptides
- protein-protein interactions
- bioinorganic interactions

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is a collaborative research project with partners from Ruhr-Universität Bochum, Universität Duisburg-Essen, and Universität Düsseldorf aiming on specific questions in the area of crystal formation, the fluidic phase and dynamic processes. Specifically questions are raised aiming on the elucidation of the reasons for co-crystal formation and the formation of polymorphic crystals, understanding of the solubility of molecules at the molecular level and cooperative effects of microsolvation, kinetics of the formation of supramolecular structures and the role of „non-covalent“ reaction mechanisms.

Participation

For all invited speakers accommodation, conference participation and meals will be provided. In addition, invited speakers will receive a complimentary lump-sum contribution to their travel expenses of 250 €. Each invited speaker is offered to bring two PhD students from his/her research group as participants to the summerschool who will also receive free participation, accommodation and meals. As a requirement all participating students have to submit an abstract and present their research work either as a poster or an oral presentation.

Registration and abstract submission

www.ruhr-uni-bochum.de/intchem/summerschool08

Organisation

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