JAN CHALABALA

(00420) 731317029, chalabaj@vscht.cz, Prague

RESEARCH INTEREST

I currently focus on quantum chemistry modeling and molecular simulations of hydrogen bonded systems with relevance to astrochemistry.

Particularly: photoionization dynamics of ammonia and water clusters, electron ionization mass spectra modeling, X-ray spectroscopy

EDUCATION

International Max Planck Research School, Dresden (joint Ph.D.) 2015-now
Institute of Chemical Technology, Prague

Ph.D. **Physical chemistry**
Dissertation: X-ray photodynamics: molecular simulation of radiation processes

Institute of Chemical Technology, Prague 2010-2015

M.Sc. **Molecular analytical and physical chemistry** (*summa cum laude*)
Thesis: Intermolecular interactions of aromatic compounds in excited and ionized states

B.Sc. **Environmental Chemistry and Toxicology** (*summa cum laude*)
Thesis: Influence of bicarbonate ion on carbon steel corrosion

WORK EXPERIENCE

Institute of Chemical Technology, Prague 09/2015-now
assistant at Department of physical chemistry

Institute of Chemical Process Fundamentals of the ASCR 04/2014
short-term internship
processing gas chromatography spectra

Department of Petroleum Technology, ICT Prague 06 - 08/2012
developing procedure for image analysis of particles in oil sediments

Arkon flow systems s.r.o., Brno 06 - 09/2009
constructing electromagnetic flow meters for foreign customers
final testing and calibrating devices before delivery

CERTIFICATES AND COURSES

ATHENS programme

Climate change and ethics, University of Technology, Delft 2015

Safety Engineering, Katholieke Universiteit, Leuven 2014

Nanotechnologies, Ecole Nationale Supérieure de Techniques Avancées, Paris 2013

Arctic technology field course 2013

Technical University of Denmark , Greenland
Installation and measurement of micro-hydro power plant in arctic condition

Introduction to solid state chemistry 2013

Massachusetts Institute of Technology, Cambridge
Comprehensive course focusing on chemical nature of matter

Astronomy 2013-2014

Prague planetarium and Stefanik Observatory, Prague
Two year seminar and sky observations

ADDITIONAL SKILLS

Computer: MS Office, Linux (user), HTML/CSS, Delphi/PHP/MySQL(basics)
Bash/Fortran(basics)

Language: English (B2+)

Driving license class B

LIST OF PUBLICATIONS

- Chalabala, J.; Slavíček, P. Ionization Dynamics of Ammonia Dimer Studied by Methods of Quantum Chemistry. Book of Abstracts, COST Action Our Astrochemical History CM1401. Praha, 25-29th May, Copy General, 2015; p 62.
- Chalabala, J.; Slavíček, P.; Structure and Dynamics of Ionized Ammonia Dimer. 51st Symposium on Theoretical Chemistry Chemistry in Motion, Postupim, 20-24th.September 2015
- Chalabala J., Macak J.: *Influence of bicarbonate ions on carbon steel corrosion*. Conference collection „Chemie energetických okruhu 9“, p40, Prague (2012)