Mgr. Tereza Uhlíková, Ph.D.

Contact Information

Department of Analytical Chemistry
University of Chemistry and Technology
Technická 5
166 28 Prague 6
Czech Republic

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Research Interests

Astrochemistry, radicals, quantum chemistry, properties of excited states of small molecules – lifetimes, vibronic coupling, spin-orbit coupling
solid state chemistry properties of crystalls – phonon vibrations, low energy vibration, intra- and intermolecular vibrations

Personal information

Born name:	Šedivcová
Nationality:	Czech
Resident of:	Czech Republic

Education

Gymnázium Jaroslava Heyrovského – secondary school, Prague 13 **1994–1998**

Charles University, Prague, Czech Republic – master degree **1998–2003**
Faculty of Science, Department of Physical and Macromolecular chemistry
M. S., Physical Chemistry, Jun 2003
Diploma topic: "Theoretical study of molecular ions and their detection in interstellar matter"
Advisors: Doc. RNDr. J. Fišer, CSc. and RNDr. S. Civiš, CSc.

Charles University, Prague, Czech Republic – doctoral degree **2003–2007**
Faculty of Science, Department of Physical and Macromolecular chemistry
Ph. D., Physical Chemistry, March 2007
Dissertation topic: "Properties of metastable states of small molecules"
Advisor: Ing. Vladimír Špirko, DrSc.

Courses

Astronomical courses *Planetárium Praha, CZE* **1997–1998**
Summer-school of Quantum Chemistry *Jaroslav Heyrovský Institute of Physical Chemistry, Academy of Sciences of the Czech Republic* **2001**
Astronomical and astrophysical lectures *Faculty of Mathematics and Physics, Charles University in Prague with practice on Ondřejov Observatory 2-meter Telescope* **2001–2003**
Theoretical Spectroscopy Lectures: theory and codes *CECAM, Lyon, France* **2007**
Basic techniques and tools for development and maintenance of atomic-scale software *CECAM, Lyon, France* **2008**

Professional Experience & Abroad stage

Jaroslav Heyrovský Institute of Physical Chemistry
Academy of Sciences of the Czech Republic (IPCh CAS), Prague, Czech Republic **July 2001**
RNDr. Svatopluk Civiš, CSc. diploma thesis **2001–2003**
Analysis of astronomical spectra in order to identify C_2^- in interstellar matter

Okayama University and Observatory
Faculty of Science, Department of Chemistry, Okayama, Japan **November 2003**
Prof. Kentarou Kawaguchi
Observation and processing of measured visible spectra of reddened stars in order to identify carbon chain as possible carrier of DIB's

Bergische Universität
Faculty of Mathematics and Natural Sciences, Department of Theoretical Chemistry, Wuppertal, Germany **September – December 2005**
Prof. Per Jensen, Ph.D.
Introducing with `MORBID` program, calculating high excited rovibrational states of H_2O

Institute of Organic chemistry and Biochemistry
Academy of Sciences of the Czech Republic, Prague, Czech Republic **Feb. 2006 – Feb. 2007**
Ing. Vladimír Špirko, DrSc
Metastable states and radiative association of diatomic dications

Universita' degli Studi di Milano
Physics Department, Milano, Italy **March 2007 – December 2008**
Dott. Nicola Manini
Calculations of spectra of triatomic molecules using factorization approach

University of Chemistry and Technology, Prague
Laboratory of High Resolution Molecular Spectroscopy **January 2009 – present**
Prof. Štěpán Urban
Calculation and analysis of microwave spectra of radicals

SKILLS

Languages: English (level C1), France (level B1)
Using program packages and languages: `MOLPRO, MOLCAS, Gaussian, Cfour, MORBID`
experience with C, Fortran, MatLab
Operating Systems: Linux, Windows

RESEARCH PROJECT

Calculations and analyses of high resolution microwave spectra of species of atmospheric and astrophysical interest **2009 – 2012**
Provider: Grand Agency of the Czech Republic