Curriculum Vitae

Ágnes Vibók

Personal information:
Name: Ágnes Vibók
Citizenship: Hungarian
Date and place of birth: March 20, 1962, Gyöngyös
Family status: married, 3 children
Children: Veronika (1988), Máté (1990), Katinka (1994)

Workplace:
University of Debrecen, Department of Theoretical Physics
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Education:

2002: D.Sc. in physics, Hungarian Academy of Sciences, Budapest, Hungary
1998: Habilitation in physics, Kossuth Lajos University, Debrecen, Hungary
1990: Ph.D in physics, Kossuth Lajos University, Debrecen, Hungary
1985: M.Sc in physics, Kossuth Lajos University, Debrecen, Hungary

Employment:

2003-present: Professor, University of Debrecen, Debrecen, Hungary
2010-2011: Sabbatical, University of Heidelberg, Institute of Theoretical Chemistry, Germany (1 year)
2002-2003: Visiting Scientist, DKFZ, Heidelberg, Germany
1998-2003: Associate Professor, University of Debrecen, Debrecen, Hungary
1994-1998: Assistant Professor, Kossuth Lajos University, Debrecen, Hungary
1993-1994: Research Fellow, Kossuth Lajos University, Debrecen, Hungary
1992-1993: Postdoctoral Fellow, Josef Fourier University, Grenoble, France
1991-1992: Postdoctoral Fellow, University of Bristol, Bristol, U.K.
1990-1991: Research Assistant, Kossuth Lajos University, Debrecen, Hungary
1985-1990: Post Graduate Student, Kossuth Lajos University, Debrecen, Hungary

Research interest:

Atomic and molecular physics. Quantum chemistry. Developing theoretical methods to study the electronic structure of atoms and molecules. Electronic structure of biomolecular systems. Intermolecular interactions (hydrogen bonds and Van der Waals interactions). Complex absorbing potentials in time dependent quantum dynamics. Nonadiabatic molecular dynamics. Ion beam interactions with biomolecules. Nonadiabatic coupling terms in atomic and molecular systems containing degenerate electronic states. Topological phases. Molecular switches. Photon induced nonadiabatic processes. Laser induced conical intersections and nonadiabatic processes. Laser controlled physical and chemical processes in molecular systems. Ultrafast quantum dynamics through conical intersections. Quantum dynamics of light-matter interaction.

Research grants:

1987-1995: 5 grants from the Soros Foundation
1995: AMFK grant
1995-1997: OTKA grant (Principal young investigator) (Theoretical investigation of intermolecular interactions; 300eFt)
1998-2001: OTKA grant (principal investigator) (Electronic structure in atoms and molecules; 2800eFt)
1998-2002: FKFP grant (principal investigator) (Time-dependent quantum dynamics; 2800eFt)
2002-2005: OTKA grant (principal investigator) (Developing methods to investigate ..., 4000eFt)
2006-present: 3 NKTH-TÉT and MTA-DFG grants (principal investigator) (Hungarian-French TÉT(2006-08), Hungarian-Spanish TÉT(2007-09), Hungarian-Norvegian TÉT(2009-11))
2010: NKTH-OTKA (mobility grant) (principal investigator) (Photoinduced nonadiabatic processes; 13405eFT)

International study visits and fellowships

1987 (2 months) Slovak Academy of Sciences, Institute of Inorganic Chemistry, Bratislava, Slovakia

1988 (2 months) Slovak Academy of Sciences, Institute of Inorganic Chemistry, Bratislava, Slovakia

1991-1992 MTA-Royal Society postdoctoral fellowship, University of Bristol, School of Chemistry, Bristol, UK

1992-1993 CIES postdoctoral fellowship, Josef Fourier University, Department of Astrophysics, Grenoble, France

1995 (3 months) University of Bristol, School of Chemistry, Bristol, UK

1996 (3 months) Eötvös fellowship, DKFZ, German Cancer Research Institute, Department of Biophysics, Heidelberg, Germany

1997-2009 ((1-2) months/year) DKFZ, German Cancer Research Institute, Department of Biophysics, Heidelberg, Germany

2002-2003: visiting scientist, DKFZ, German Cancer Research Institute, Department of Biophysics, Heidelberg, Germany

2006- present MTA-DFG, Hungarian-French TÉT, Hungarian-Spanish TÉT, Hungarian-Norvegian TÉT collaborations (1-2 weeks/collaboration)

2010: sabbatical year, University of Heidelberg, Institute of Physical Chemistry, Heidelberg, Germany

2010 (1 month) „X-Ray Frontiers" , Kavli Institute for Theoretical Physics program, UCSB, Santa Barbara, USA

2011- (2 months /year) University of Heidelberg, Institute of Physical Chemistry, Heidelberg, Germany; granted by the DFG.

Scientific awards

1985: OTDK first prize

1989-1996: 6 fellowships from the Universitas Foundation, founded by the Hungarian Commercial and Credit Bank

1989: Youth Award of the Hungarian Academy of Sciences

1996-97: AMFK, Magyary Zoltán fellowship

1998-2002: Széchenyi Professorship

2006: L'Oréal-UNESCO fellowship

Teaching activity: (undergraduate, postgraduate...)

Lectures: Classical Electrodynamics, Atomic and Molecular Physics, Molecular Spectroscopy, Nonadiabatic Molecular Dynamics, Quantum Chemistry

Practice Classes: Classical Mechanics I-II, Classical Electrodynamics, Quantum Mechanics, Workshop on Theoretical Physics

The number of Ph.D students supervised: 5

Role in scientific community:

1996 - Member of the Eötvös Lóránd Physical Society

2001 - Member of the International Society for Theoretical Chemical Physics

2006 - Member of the Atomic and Molecular Physics Committee (secretary)

2006 - 2008 Management Committee member of COST action P9 (Radiation Damage in Biomolecular Systems)

2009 - 2012 Management Committee member of COST action CM0702 (Chemistry with Ultrashort Pulses and Free-Electron Lasers: Looking for Control Strategies Through "Exact" Computations)

2010-2014 Management Committee member of COST action MP1002 (Nano-IBCT– Nanoscale Insights into Ion Beam Cancer Therapy)

Referee of (International Journal of Quantum Chemistry, Journal of Chemical Theory and Computation, Journal of Chemical Physics, Chemical Physics, Chemical Physics Letters, Chemical Physics Physical Chemistry, ...)

The number of invited lectures at international conferences: 17

The number of contributed lectures and posters at international conferences: 57

The number of total publications in journals with referees: 88

The number of independent citation: ~945