

CURRICULUM VITAE

Name: Béla Viskolcz
 Place and date of Birth: Miskolc, 07. 07, 1967
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I. PROFESSIONAL EDUCATION, SCIENTIFIC DEGREES

DEGREE	INSTITUTE	YEARS
Chemistry, MSc	Attila József Scientific University, Szeged	1991
<i>Dr. rer. nat.</i> (PhD)	Martin Luther Universität Halle-Wittenberg	1996
Chemistry Candidate	Hungarian Academy of Sciences (HAS)	1998
Habilitation	University Miskolc	2015

II. EDUCATIONAL BACKGROUND

EMPLOYMENT:

EMPLOYER	STATUS	YEARS
Hungarian Academy of Sciences (HAS)	State fellowship	1991-1993
Universität Halle Wittenberg	Research Fellow	1993-1996
University of Szeged	College lecturer	1997
University of Szeged	College Associate Professor	1998-2002
Univ. of Szeged, Dep. of Chemistry	College Professor	2002-
Univ. of Szeged, Dep. of Chemical Informatics	Head of Department	2011-2014
Univ. Miskolc, Institute of Chemistry	Head of Institute	2015-
Univ. Miskolc, Climaadaptaion Center	Head of Center	2021-
Univ. Miskolc, Higher Education and Industry Cooperation Center	Director	2022-

UNDERGRADUATE COURSE TOPICS:

Lectures	Practices
Basics of Chemistry I.	Molecular Statistics
Basics of Chemistry II.	Chemical Software Packages
Biochemistry I.	Computations of Potential Energy Surfaces
Biochemistry II.	Physical Chemistry
Environmental Chemistry	Organic Chemistry
Theoretical Organic Chemistry	Analytical Chemistry
Computations of Potential Energy Surfaces	Basics of Informatics
Molecular Statistics	Basics of Chemistry
Interdisciplinary Chemical Informatics	

VISITING POSITIONS:

STATUS	INSTITUTE	YEARS
Visiting Researcher	Universität Halle-Wittenberg	1993-1996
Humboldt Fellowship	Universität Karlsruhe	1999-2000
Visiting Professor	Universität Karlsruhe	2002 (1 month)
Visiting Professor	University of Lille	2004 (2 months)
Visiting Professor	Universität Karlsruhe	2005 (1 month)

III. SCIENTIFIC ACHIEVEMENTS (2022.11.28)

Number of Publications:	264
Number of Citations:	2124
Number of Independent Citations:	1536
H-index:	28
Conference lecture/poster	123

IV. AWARDS

Zoltán Magyary Postdoctoral Fellowship	1997-1999
Eötvös State Fellowship	1998
Alexander von Humboldt Stipendium	1999-2000
János Bolyai Postdoctoral Fellowship	2001-2004
Pro Juventute Medal	2004
Rectoral Recognition	2006
Öveges Fellowship	2006
János Bolyai Postdoctoral Fellowship II.	2007-2010

PUBLIC ACTIVITY

Hungarian Academy of Sciences Public-Body Fellowship	1998-
Deutsche Bunsengesellschaft	1996-
Zoltán Magyary Postdoctoral Associates (leader)	2001-2002
István Meleg Foundation for Chemistry Education (Founding member)	2006-2015
Hungarian Combustion Committee	2013-
National Council of Science Students	
President of Chemical Industrial Section	2015-

V. MAIN PUBLICATIONS

1. B. Viskolcz, G. Lendvay, T. Körtvélyesi and L. Seres: "Intramolecular H Atom Transfer Reactions in Alkyl radicals and the Ring Strain Energy in the Transition Structure" *J. Am. Chem. Soc.* 3006, **118** (1996).
2. F. Caralp, P. Devolder, C. Fittschen, N. Gomez, H. Hippler, R. Méreau, M. T. Rayez, F. Striebel, and B. Viskolcz, "The thermal unimolecular decomposition rate constants of ethoxy radicals." *Phys. Chem. Chem. Phys.* 2935, **1**, (1999).
3. H. Hippler, and B. Viskolcz: "Competition between Alkyl Radical Addition to Carbonyl Bonds and H-Atom Abstraction Reactions" *Phys. Chem. Chem. Phys.* 4663, **4**, (2002).
4. B. Viskolcz, Sz. N. Fejer, A. Perczel, S. J. K. Jensen and I.G. Csizmadia "Maximal Information Accumulation in Polypeptide Secondary Structures" *Chem. Phys. Letter*, 123-126, **450**, (2007).
5. M. Szőri, I. G. Csizmadia and B. Viskolcz "Non-enzymatic pathway of PUFA oxidation A first principles study on the reactions of OH radical with 1,4 pentadiene and arachidonic acid" *J. Chem. Theory Comput.*, 1472-1479, **4**, (2008)
6. Róbert Izsák, Milán Szőri, Peter J. Knowles, and Béla Viskolcz, High Accuracy Ab Initio Calculations on Reactions of OH with 1-Alkenes. The Case of Propene, *J. Chem. Theory Comput.*, 2313-2321, **5**, (2009).
7. Fiser Béla, Szori Milan, Jojart Balazs, Izsak Robert, Csizmadia Imre G, Viskolcz Béla, Antioxidant Potential of Glutathione: A Theoretical Study, *J. Phys. Chem B.* 11269-11277, **115**: (2011)

8. Fiser B, Jojart B , Szori M , Lendvay G , Csizmadia IG , Viskolcz B, Glutathione as a Prebiotic Answer to alpha-Peptide Based Life. *J. Phys. Chem B.* 3940-3947, 119: (2015)

Book Chapter:

9. Imre Jákl, András Perczel, Béla Viskolcz, Imre G Csizmadia Quantum Chemical Calculations on Small Protein Models In: Náray-Szabó G (editor) Protein Modelling. Cham: Springer, 2014. pp. 5-50. (ISBN:978-3-319-09975-0)

VI. GRANT APPLICATIONS LAST 3 YEARS

GINOP 2.2.1-15-2016 (2016 – 2020)

Energy efficient and environmentally friendly neutralization and chemical recycling of chemical residues (research and innovative development of catalysts for catalytic thermal neutralization of sodium chlorate)

Amount of the project: 2 039 M HUF.

Research Director

GINOP-2.3.4.-15-2016-00004 (2016-2021)

Creation of advanced materials and intelligent technologies at the University of Miskolc

Amount of the project: 5 837 MHUF.

Research Director of advanced material section

GINOP-2.3.2-15-2016-00058 (2017. július 1 – 2021. június 12)

Efficient production and utilization of preventive feed supplements based on microalgae strains with immunostimulatory effects and not used so far in intensive fish farms

Amount of the project: 742 MHUF

Projekt manager

LIFE19 CCA/HU/001320 – LIFE-CLIMCOOP (2020.09.01 – 2024.08.31)

Cooperation of cities and local companies for climate change adaptation

Amonut of the Project: 2,95 MEUR

RRF-2.3.1-21-2022-00014: Climate Change Multidisciplinary National Laboratory

Amonut of the Project: 300 MFt

Projekt manager - Research Director

TKP2021-NVA-14 (Radioactive elemens...) (2022.01.01 -2025.12.31)

Removal of radioactive elements and other polluting toxic heavy metals from the human body and the environment

Amonut of the Project: 981,9 MHUF

Research Director – Project manager

VII. EDUCATIONAL ACTIVITY (SINCE 1997)

Lectures	Practices
Basics of Chemistry I. and II.	Molecular Statistics
Biochemistry I.	Chemical Software Packages
Biochemistry II.	Computations of Potential Energy Surfaces
Environmental Chemistry	Physical Chemistry
Theoretical Organic Chemistry	Organic Chemistry
Computations of Potential Energy Surfaces	Analytical Chemistry
Molecular Statistics	Basics of Informatics
Interdisciplinary Chemical Informatics	Basics of Chemistry
Physical Chemistry I. and II	Reaction Kinetics

RESEARCH DIRECTOR FOR PHD:

PHD RECEIVED:

Jacqueline Law: PhD 2007: **MOLECULAR STRUCTURE AND THERMODYNAMIC FUNCTIONS OF PHOSPHOLIPID COMPONENTS** (2007)

Milán Szőri: PhD 2008: **A THEORETICAL STUDY ON RADICAL REACTIONS OF UNSATURATED HYDROCARBONS** http://doktori.bibl.u-szeged.hu/1289/1/MyPhD_final.pdf (2008)

Michael Owen PhD 2012: **FREE RADICAL-INITIATED UNFOLDING OF PEPTIDE SECONDARY STRUCTURE ELEMENTS** <http://doktori.bibl.u-szeged.hu/1522/1/Dissertation-igypk.pdf> (2012)

Anita Rágyanszki PhD 2015: **ANALYTICAL FUNCTIONAL REPRESENTATION OF QUANTUM CHEMICAL POTENTIAL ENERGY CURVES AND SURFACES.** <http://doktori.bibl.u-szeged.hu/2600/> (2015)

Eszter Pongráczné Faragó PhD 2016 Co-supervisor (Christa Fittschen Univ. of Lille): **COMBINED EXPERIMENTAL AND THEORETICAL INVESTIGATION OF THE REACTIVITY OF CH₃O₂ AND C₂H₅O₂ RADICALS** http://doktori.bibl.u-szeged.hu/2807/1/Dissertation_Szeged_final.pdf

Béla Fiser PhD 2017: **THEORETICAL INVESTIGATIONS OF GLUTATHIONE – A UNIQUE ANTIOXIDANT** http://193.6.1.94:9080/JaDoX_Portlets/documents/document_26044_section_22875.pdf (2017)

Zsanett Boros Renáta PhD 2019: **"A STUDY OF ELEMENTARY REACTIONS OF ISOCYANATE PRODUCTION"** <https://dx.doi.org/10.14750/ME.2019.016>

Rachid Hadjadj PhD 2021: **THEORETICAL STUDY ON MOLECULAR NETWORKS OF CARBON DIOXIDE TO METHANOL CONVERSION** http://193.6.1.94:9080/JaDoX_Portlets/documents/document_36340_section_3356_2.pdf

Wafaa Cheikh PhD 2021: **"AN ATOMISTIC VIEW OF POLYURETHANE CHEMISTRY – A COMBINED THEORETICAL AND EXPERIMENTAL STUDY"** http://193.6.1.94:9080/JaDoX_Portlets/documents/document_38183_section_3557_0.pdf

SUMMER SCHOOLS

Joint Summer School with the University of Toronto "Science Abroad" entitled "Annual European Molecular Computational Summer School for Life Science Students" since 2005. Website for the last years are found in: <http://drugcent.eu/events/summer-school-2017>

INTERNATIONAL COOPERATION:

PARTNER	COUNTRY	INSTITUTE *
Prof. Dr. Horst Hippler	Germany	University of Karlsruhe
Dr. Christa Fittschen	France	University of Lille,
Prof. Matthias Olzmann	Germany	University of Karlsruhe
Prof. Rüdiger Ettrich	Czech Republic	Academy of Sciences of the Czech Republic
Prof. Dr. Svend Jensen	Denmark	University of Aarhus
Prof. Dr. Gregory Chass	United Kingdom	University of London
Prof. Dr. Bálint Agneta	Romania	West University of Timisoara
Prof. Csanádi János	Serbia	University of Novi Sad
Dr. Michelle Sahai	United Kingdom	University of Roehampton – London
Dr. Binod Giri	Saudi Arabia	KAUST, Clean Combustion Research Center