Curriculum Vitae of Glib V. Baryshnikov

Current position:

PostDoc
Division of theoretical chemistry and biology,
School of Biotechnology, Royal Institute of Technology
Stockholm, Sweden

Education:

2006-2010 *Bachelor student.*
B.Sc, 2010, Chemistry, Bohdan Khmelnitsky of National University, Cherkasy, Ukraine.

2010-2012 *Master student*.
M.Sc, 2012, Chemistry, Bohdan Khmelnitsky National University, Cherkasy, Ukraine. (Thesis title: Theoretical study of the structure and electronic-spectral properties of the organic and organometallic sensitizing dyes for the Grätzel-type solar cells. Thesis supervisor: Prof. Boris F. Minaev)

2012-2015 *Ph.D student*.
Ph.D degree in Physical Chemistry, V. N. Karazin Kharkiv National University. (Thesis title: Structural and spectral properties of heterocirculenes and sensitizing dyes for photovoltaic cells. Thesis supervisor: Prof. Boris F. Minaev)

Work experience:

2012-2015 *Assistant lecturer*, Educational and Research Institute of Natural Sciences, Bohdan Khmelnitsky National University, Cherkasy, Ukraine

2015-present *Lecturer*, Educational and Research Institute of Natural Sciences, Bohdan Khmelnitsky National University, Cherkasy, Ukraine
Teaching courses: Quantum Chemistry and the Structure of Matter, Molecular Spectroscopy, Fundamentals of Scientific Research, Modern problems of chemical science, Research techniques.

2011-2016 *Assistant* (off-hour job), Educational and Research Institute of Natural Sciences, Bohdan Khmelnitsky National University, Cherkasy, Ukraine.

2012-present *Reseacher* (projects of state funding, off-hour job), Educational and Research Institute of Natural Sciences, Bohdan Khmelnitsky National University, Cherkasy, Ukraine.

Professional Internship

2009-2011 Division of Theoretical Chemistry and Biology, School of Biotechnology, Royal Institute of Technology (KTH), Stockholm, Sweden (one month per year). Internship supervisors: Prof. Boris F. Minaev, Prof. Hans Ågren

Fellowships, awards and recognition:

2017-2018 Grant of Carl Tryggers Foundation (Sweden) “Principles of electroluminescence in organic and hybrid light emitting diodes” (contract No.: CTS 16:536 and CTS 17:514).

2018-2019 Grant of Olle Engkvist Byggmastare foundation (Sweden) “Design and fabrication of light-emitting diodes based on alternative schemes of electroluminescence” (contract No.: 189-0223)

2017 Grant of the President of Ukraine for young scientists “Energy transfer mechanisms and vibronic effects in the multilayered organic light-emitting diodes”

2015 Prize of the President of Ukraine for young scientists (http://kdpu-nt.gov.ua/en/work/new-approaches-creation-and-efficiency-justification-functional-metalocomlexes-clusters-and)

2014-present Fellowship of the Cabinet of Ministers of Ukraine for the Young Scientists (http://kdpu-nt.gov.ua/en)

2012 Prize of the National Academy of Sciences of Ukraine Presidium (in chemistry) (http://www.nas.gov.ua/EN/Pages/default.aspx)

2009-2011 three-time winner of the Fellowship of the Victor Pinchuk «Zavtra.UA» Foundation (http://pinchukfund.org/en/projects/9/?clear_cache=Y)

2012-present Reviewer for JACS, JOC, Sci. Rep., J. Mol. Struct., J. Mol. Model., Comp. Theor. Chem., Dyes Pigm., etc.

Scientific score (Sep. 2017)

The total number of publications indexed in Scopus – 94
The total number of citations – 1572 (Google Scholar); 1246 (Scopus)
h-index – 23 (Google Scholar); 20 (Scopus)

Research skills and experience in using softwares:

Experience in using *Gaussian98/03/09*, *Dalton 2.0*, *ORCA* (*ab initio* electronic structure calculation packages), *CSD* (Cambridge Structure Database for small molecules), *AIMAll* (the program package for the quantum-chemical calculation at the level of Bader’s theory “Atoms in Molecules”), *Origin*, *Swizard* (the software for the processing of spectral data), *Chemcraft*, *Molden*, *GaussView*, *Material Studio* (visualizers for the calculation data, periodic boundary condition (PBC) calculations)

Research interests

Ab initio quantum chemistry, chemical physics, organic electronics, symmetry, magnetic properties of molecules and materials, aromaticity, circulenes, molecular spectroscopy, the modern theory of chemical bond, non-covalent interactions.

Collaboration:

2009-present Prof. Dr. *Hans Ågren*, KTH Royal Institute of Technology, Stockholm.
Theoretical design of the materials for the solar cells and OLEDs application.

2012-present Prof. Dr. *Michael Pittelkow*, University of Copenhagen.
Study of the electronic structure and spectral properties of the hetero[8]circulenes.

2013-present Prof. Dr. *Pavlo Stakhira*, Lviv Polytechnic National University, Lviv, Ukraine
Fabrication of OLEDs on the basis of the carbazol-containing fluorophors and organometallic phosphors.

2013-present Prof. Dr. *Juozas V. Grazulevicius*, Kaunas University of Technology, Kaunas, Lithuania
Study of the electronic structure and spectral properties of the novel carbazol-containing fluorophors and organometallic phosphors.