

Curriculum Vitae

Personal information

Surname(s) / First name(s)

Address(es)

Telephone(s)

Fax(es)

Email(s)

Date of birth

Robert W. Góra

Department of Physical and Quantum Chemistry
Faculty of Chemistry
Wroclaw University of Science and Technology
Wybrzeże Wyspiańskiego 27
PL-50370 Wrocław, Poland

+48 71 320 4472 Mobile: +48 508 113 816

+48 71 320 3364

robert.gora@pwr.edu.pl

1974-10-05



Positions held

since 2019

Associate Professor,
Faculty of Chemistry, Wroclaw University of Science and Technology

2014

Madurai Kamarai University (Madurai, India),
Department of Physical Chemistry,
Visiting Professor (2 weeks)

2003-2019

Assistant Professor,
Faculty of Chemistry, Wroclaw University of Science and Technology

2002–2003

Research Assistant,
Faculty of Chemistry, Wroclaw University of Science and Technology

Education

2014

D.Sc. (habilitation) in Chemical Sciences (Theoretical Chemistry),
Faculty of Chemistry,
Wroclaw University of Science and Technology

2002

Ph.D. in Chemical Sciences (Physical Chemistry),
Institute of Physical and Theoretical Chemistry,
Wroclaw University of Technology

1998

M.Sc. Eng. in Computational Chemistry,
Faculty of Chemistry,
Wroclaw University of Technology

1998

Certificate of Attendance,
TEMPUS Mobility Scheme, School of Chemistry,
University of Bristol

Experience

1999–2003

Jackson State University (Jackson, USA),
Computational Center for Molecular Structure and Interactions, Prof. Leszczynski's
group,
frequent short-term visits (18 months)

2002

University of Oxford (Oxford, UK),
Summer School in Molecular Physics and Quantum Chemistry (1 week)

2001

National Hellenic Research Foundation (Athens, Greece),
Theoretical and Physical Chemistry Institute, Petsalakis group,
visiting researcher (1 month)

2001

University of Lundt (Tjörnarp, Sweden),
European Summerschool in Quantum Chemistry (2 weeks)

Scientific output

62 publications
879 times cited
229.6 impact factor
18 H-index

Research Topics

- photochemistry and photophysics of organic molecules;
- prebiotic chemistry, chemical abiogenesis and origins of Life on Earth;
- nonadiabatic phenomena, in particular excitation energy transfer (EET), internal conversion and intersystem crossings;
- linear and nonlinear electrooptic properties of atomic and molecular aggregates;
- theory of intermolecular interactions;
- continuous and discrete solvation models in *ab initio* calculations
- development of *ab initio* quantum chemistry methods: hybrid variational-perturbational interaction energy and interaction-induced electric properties partitioning schemes, methods for estimation of EET couplings;

Selected articles

- 2018 M. J. Janicki, S. J. Roberts, J. Šponer, M. W. Powner*, R. W. Góra*, R. Szabla*, "Photostability of oxazoline RNA-precursors in UV-rich prebiotic environments", *Chem. Commun.* **2018**, 54, 13407–13410 (IF: 6,290).
- 2017 J. Xu, M. Tsanakopoulou, C. J. Magnani, R. Szabla*, J. E. Šponer, J. Šponer, R. W. Góra, J. D. Sutherland*, "A prebiotically plausible synthesis of pyrimidine β -ribonucleosides and their phosphate derivatives involving photoanomerization", *Nat. Chem.* **2017**, 9, 303–309 (IF: 26,201).
- 2017 R. Szabla*, H. Kruse, J. Šponer, R. W. Góra*, "Water–chromophore electron transfer determines the photochemistry of cytosine and cytidine", *Phys. Chem. Chem. Phys.* **2017**, 19, 17531–17537 (IF: 3,906).
- 2016 J. E. Šponer, R. Szabla, R. W. Góra, A. M. Saitta, F. Pietrucci, F. Saija, E. D. Mauro, R. Saladino, M. Ferus, S. Civiš, J. Šponer*, "Prebiotic synthesis of nucleic acids and their building blocks at the atomic level – merging models and mechanisms from advanced computations and experiments", *Phys. Chem. Chem. Phys.* **2016**, 18, 20047–20066 (IF: 4,123).
- 2016 R. Szabla*, R. W. Góra*, J. Šponer, "Ultrafast excited-state dynamics of isocytosine", *Phys. Chem. Chem. Phys.* **2016**, 18, 20208–20218 (IF: 4,123).
- 2015 R. Szabla*, J. Campos, J. E. Šponer, J. Šponer, R. W. Góra*, J. D. Sutherland*, "Excited-state hydrogen atom abstraction initiates the photochemistry of β -2'-deoxycytidine", *Chem. Sci.* **2015**, 6, 2035–2043 (IF: 9,144).
- 2015 R. Szabla*, J. Šponer, R. W. Góra*, "Electron-Driven Proton Transfer Along H₂O Wires Enables Photorelaxation of $\pi\sigma^*$ States in Chromophore–Water Clusters", *J. Phys. Chem. Lett.* **2015**, 6, 1467–1471 (IF: 8,539).
- 2015 B. Błasiak*, M. Maj, M. Cho, R. W. Góra*, "Distributed Multipolar Expansion Approach to Calculation of Excitation Energy Transfer Couplings", *J. Chem. Theory Comput.* **2015**, 11, 3259–3266 (IF: 5,301).

Awards and Achievements

- 2004, 2008, 2012, 2016, 2017 Wrocław University of Science and Technology Rector's Award in recognition of distinctive contributions to the activities of the University, Wrocław, Poland
- 2008 3rd degree Team Award of Nicolaus Copernicus University Rector in recognition of achievements in the field of scientific research in 2007, Toruń, Poland
- 2006 Team Award of the Polish Ministry of Science and Higher Education for the series of publications on the physical nature of interactions in molecular complexes and the active centers of enzymes, Warsaw, Poland
- 2006, 2009 Conference Scholarships of Foundation for Polish Science, Warsaw, Poland
- 2002, 2003 National Scholarship of the Foundation for Polish Science for the Young Scientists, Warsaw, Poland
- 1998 TEMPUS Mobility Grant, School of Chemistry, University of Bristol, UK

Research Grants

- 2016–2019 *Photochemistry and photophysics of the prebiotic synthetic routes to biomolecules*, National Science Centre grant no NCN 2016/23/B/ST4/01048, project leader (PI)
- 2012–2015 *Theoretical Studies of the Resonant Excitation Energy Transfer in the Model Systems and DNA-templated Helical Cyanine Dye Aggregates*, National Science Centre grant no NCN 2011/03/B/ST4/00587, project leader (PI)
- 2001–2003 *Studies of the Influence of Electronic Excitations on the Nature of Intermolecular Interactions*, State Committee for Scientific Research grant no KBN 7 T09A 056 21, project leader (PI)

Editorial and Reviewing Duties

- Editorial Journals Editorial board member of *Life*
Reviewer of articles for: *Astrobiology, Chemical Physics, Chemical Physics Letters, Computational and Theoretical Chemistry, International Journal of Quantum Chemistry, Journal of Physical Chemistry & Biophysics, Molecular Physics, New Journal of Chemistry, Optical Materials, Origins of Life and Evolution of Biospheres, Physical Chemistry Chemical Physics, Structural Chemistry, The Journal of Chemical Physics, The Journal of Molecular Modeling, The Journal of Physical Chemistry A, B and C.*
- Grants Reviewer of grant applications for: *Czech Science Foundation (GAČR), Croatian Science Foundation (HRZZ), National Science Centre Poland (NCN).*

Collaboration

- since 2018 Dr. Matthew Powner, University College London, UK
- since 2018 Prof. Dimitar D. Sasselov, Harvard University, USA
- since 2015 Prof. John D. Sutherland, MRC Laboratory of Molecular Biology, Cambridge, UK
- since 2013 Prof. Andrzej Sobolewski, Institute of Physics, Polish Academy of Sciences
- since 2012 Prof. Jiří Šponer and Dr. Judit E. Šponer, Institute of Biophysics, Academy of Sciences of the Czech Republic
- since 2011 Prof. Minhaeng Cho, Korea University, Korea
- since 2009 Dr. Josep M. Luis, University of Girona, Spain
- 1998–2013 Prof. Jerzy Leszczyński, Jackson State University, USA

Wrocław, May 17, 2019