

CURRICULUM VITAE

Dr. Rasa Pauliukaite

Personal data

FIRST NAME: Rasa

SURNAME: Pauliukaitė

SEX: female

MARITAL STATUS: single

DATE OF BIRTH: 06.1969

PLACE OF BIRTH: Rokiškis district, Lithuania



Languages

Lithuanian (native), English (fluently), Portuguese (fluently), German (good), Russian (good).

Education

1993 - Bachelor Degree of Science, Faculty of Natural Sciences, the Pedagogical University Vilnius, Lithuania.

1994 - Magister Degree of Science, Faculty of Natural Sciences, the Pedagogical University Vilnius, Lithuania.

1998 - Doctor of Physical Science, Institute of Chemistry Vilnius, Lithuania. Title of the thesis: "Equilibria and electrocatalytic redox reactions in alkaline solutions of Cu(II) complexes and formaldehyde". Supervisor Dr. E. Norkus.

Post-doctoral trainings

October 2000 - June 2001:

Post-doctoral scientist-visitor, Institute of Chemistry - Analytical Chemistry (supervisor Prof. Kurt Kalcher), Karl-Franzens University, Graz, Austria. Ernst-Mach scholarship, Austrian Academic Exchange Service.

Field of research: Electroanalytical chemistry, electrochemical sensors.

August 2001 - June 2002:

Post-doctoral scientist-visitor, Analytical Chemistry Laboratory (supervisor Dr. Bozidar Ogorevc) National Institute of Chemistry, Ljubljana, Slovenia.

Field of research: Electroanalytical chemistry, application of inorganic thin films to analysis of biologically active compounds.

August 2002 – September 2003:

Academic guest, Centre for Chemical Sensors (supervisor Prof. Ursula E. Spichiger-Keller), Swiss Federal Institute of Technology Zurich, Switzerland.

Field of research: Electroanalytical chemistry, low-cost biosensors.

October 2003 – September 2006 and October 2007 – September 2010:

Post-doctoral fellowship of Foundation of Science and Technology, Department of Chemistry (supervisor Prof. Christopher M.C. Brett), University of Coimbra, Portugal.

Field of research: Electroanalytical chemistry, biosensors, new electrode materials, nanomaterials.

Permanent positions

1994-1995 – Technician in Institute of Chemistry, Vilnius, Lithuania

1995-1998 – PhD studies

1999-2000 and 2006-2007 – Research associate in the Department of Chemical Kinetics and Catalysis, Institute of Chemistry Vilnius, Lithuania.

Field of studies: Physical and Coordination Chemistry.

Supervision of bachelor and magister students.

2010-2012 – Senior researcher in Department of Nanoengineering, Center for Physical Sciences and Technology. Head of Laboratory of Functional Nanomaterials.

Field of studies: Electroanalytical Chemistry, Nanostructured electrode arrays.

Supervision of bachelor, master, and PhD students.

2012-current – Chief researcher in Department of Nanoengineering, Center for Physical Sciences and Technology. Head of Laboratory of Functional Nanomaterials.

Field of studies: Electroanalytical Chemistry, Nanostructured electrode arrays.

Supervision of bachelor, master, and PhD students.

Short scientific visits:

November 2004

Department of Analytical Chemistry, Electroanalysis & Sensors,
Ruhr-Universität Bochum, Bochum, Germany.

Field of research: Control of wine fermentation by glucose analysis
using electrochemical biosensors.

April 2006

Interdisciplinary Research Centre, Queen Mary, University of
London, London, UK.

Field of research: Preparation of polymer membranes for protection
of biosensors from fouling.

September-October 2009

Department of Chemistry, Faculty of Science and Technology,
University of Hassan II, Mohammedia, Morocco.

Field of research: Control of protein hydrolysis by determination of
amino acids in strong acidic medium for application to food analysis.

Experience and interests

Fields of interest:

- Physical Chemistry
- Electroanalytical Chemistry, different modes of electrochemical methods,
including electrochemical impedance spectroscopy
- Electrochemical Sensors and Biosensors
- Fabrication and electrosynthesis of conducting redox polymers
- Electrochemical trace analysis
- Fabrication of nanostructures
- Development of electrochemical sensors and biosensors with carbon nanotubes,
graphene and other nanoparticles for determination of biologically active
compounds in food and beverages:
 - Determination of heavy metals in drinking water and other drinks at Bi
nanoparticle film
 - Determination of ascorbic acid in drinks
 - Determination of glucose, alcohol, aldehyde in wine

- Determination of glutamate in tomato specimens
- Graphene electrochemistry and its application to sensor development and supercapacitors

Participation in projects:

- 2002-2003 – Innovative Functional Materials and Associated Technologies for the Development of New Improved Chemical Sensors (MICS), EU-Project No. GR01-2000-25288. (Switzerland, implementer): *Production of “electronic tongue” for the quality determination tomato products*
- 2004-2005 – NOVTECH N⁰ HPRN-CT-2002-00186 (Portugal, implementer): *Electrochemical sensors for quality determination of wine*
- 2004-2006 – Treaty of Windsor Anglo-Portuguese joint research programme between University of Coimbra and Queen Mary, University of London (Portugal, PI): *Polymer membranes for biosensor protection from biofouling*
- 2005-2006 – Sustainable/Green Organic Chemistry COST-D29-271006-02715 (Portugal, implementer): *Ionic liquids as electrolytes*
- 2007 – COST action 637 “Metals and related substances in drinking water”. (Lithuania, management committee member): *Heavy metal determination in drinking water*
- 2009 – NANOSENS (PIRSES-GA-2008-230815, Marie Curie International Research Staff Exchange Scheme) (Portugal, Morocco, implementer): *Miniaturisation of biosensors for food quality determination. Amino acid determination*
- 2011-2015 – Global grant project VP1-3.1-ŠMM-07-K-01-124 (Lithuania, scientific leader of the project) *Nano- and laser-technology application to the investigation and modification of graphene and to the development and miniaturisation of (bio)sensors for food quality control*
- 2012-2014 – Lithuanian-Swiss bilateral program project CH-3-ŠMM-01/11 (Lithuania, PI) *Single cell platform for metabolite sensing and integrated analysis*
- 2012-2014 – National complex program project VP1-3.1-ŠMM-08-K-01 (Lithuania, implementer) *Biocatalysts, recombinant proteins and cell technologies*
- 2015 – Outsourcing research “Thermo Fisher Scientific Baltics” *Development of graphene electrodes for electrophoresis devices*

- 2016-2018 – Project grant “Towards future technology” No. LAT 11/2016 (Lithuania, PI) *Graphene supercapacitor powered FET all carbon circuit for sensing applications*
- 2018-2019 Students’ research program project (Lithuania, supervisor) No. 09.3.3-LMT-K-712-10-0036 *Investigation of electrochemical polymerisation of natural compounds*
- 2020-2022 Postdoctoral research program (Lithuania, supervisor) 09.3.3-LMT-K-712-19-0050 *The formation of thin films electrodes from graphene-based materials and applications to (bio)sensors*
- 2020-2023 Global grant project No. 01.2.2-LMT-K-718-03-0038 (Lithuania, PI) *Wireless food production conveyor cleanliness control system, BEGAMA.*

Expertise

Peer Review for some journals such as *Analytica Chimica Acta*, *Analytical Methods*, *Biosensors and Bioelectronics*, *Chemija*, *Electroanalysis*, *Electrochimica Acta*, *European Polymer Journal*, *Food Chemistry*, *International Journal of Environmental Analytical Chemistry*, *Journal of Electroanalytical Chemistry*, *Material Science and Engineering C*, *Microchimica Acta*, *Sensors and Actuators B*, and others.

Review project proposals for Czech Science Foundation, South African National Research Foundation, and Lithuanian Business Support Agency.

Review of PhD theses for University Vilnius (Lithuania), Institute of Chemistry of Center for Physical Sciences and Technology (Lithuania), Western Cape University (Republic of South Africa).

Publications:

70 publications in Clarivate Analytics database journals. Cited over **2270** times (January 2022), **h** = **26** (Web of Science). 134 contributions to international and national conferences, 44 from them are oral, 3 of them are invited (including one keynote).

Participation in PhD programs:

2007 – Opponent of PhD thesis by *Natalija German* (VU, Faculty of Chemistry)

- 2010-2015 – **Supervisor** of PhD studies by *Raimonda Celiešiūtė* (FTMC, Institute of Physics, VU)
- 2012 – Opponent of PhD thesis by *Eglė Kazlauskienė* (VU, Faculty of Chemistry)
- 2012 – Opponent of PhD thesis by *Erika Panašikaitė* (VU, Faculty of Chemistry)
- 2012 – Member of the Committee of the PhD program of Chemistry by *Inga Stankevičienė* (VU, Faculty of Chemistry)
- 2012 – Opponent of PhD thesis by *Renata Česūnienė* (FTMC, Institute of Chemistry)
- 2014 – Member of the Committee of the PhD program of Chemistry by *Irma Liaščukienė* (FTMC, Institute of Chemistry)
- 2014 – Member of the Committee of the PhD program of Chemistry by *Audronė Sabaliauskienė* (VU, Faculty of Chemistry)
- 2014 – Member of the Committee of the PhD program of Chemistry by *Vida Krikštolaitytė* (VU, Faculty of Chemistry)
- 2014-2019 – **Supervisor** of PhD studies by *Aušra Baradokė* (FTMC, Department , VU)
- 2016 – Member of the Committee of the PhD program of Chemistry by *Martynas Misevičius* (VU, Faculty of Chemistry)
- 2017 – Member of the Committee of the PhD program of Chemistry by *Tadas Ragaliauskas* (VU, Institute of Biochemistry)
- 2017 – Member of the Committee of the PhD program of Chemistry by *Ieva Šakinytė* (VU, Institute of Biochemistry)
- 2018 – Member of the Committee of the PhD program of Chemistry by *Lina Pavasarytė* (VU, Faculty of Chemistry and Geosciences)
- 2018 – Member of the Committee of the PhD program of Chemistry by *Olga Opuchovič* (VU, Faculty of Chemistry and Geosciences)
- 2019-2023 – **Supervisor** of PhD studies by *Nargis Sadar Negar* (FTMC, VU)
- 2019-2023 – **Supervisor** of PhD studies by *Vytautas Žutautas* (FTMC, VU)
- 2019 – Member of the Committee of the PhD program of Chemistry by *Aurelija Smalenskaitė* (VU, Faculty of Chemistry and Geosciences)
- 2020 – Member of the Committee of the PhD program of Chemistry by *Audrius Laurynėnas* (VU, Life Sciences Center)
- 2020 – Member of the Committee of the PhD program of Chemistry by *Jolanta Raudonienė* (VU, Faculty of Chemistry and Geosciences)

2020 – Member of the Committee of the PhD program of Chemistry by *Matas Janulevičius* (VU, Faculty of Chemistry and Geosciences)

2020 – Member of the Committee of the PhD program of Chemistry by *Povilas Genys* (VU, Faculty of Chemistry and Geosciences)

2020-2024 – **Supervisor** of PhD studies by *Mohamed Fawzy Abdelkar* (FTMC, VU)

Public activities

- Member of the *Swiss Chemical Society* 2002-2007
- Member of the Society of Lithuanian Scientists abroad “*Futura Scientia*” since 2009; board member since 2012-2015 and 2016-2017.
- Member of the *International Society of Electrochemistry (ISE)* since 2004; Regional representative from Lithuania for the term of 2014-2019; Vice-chair of Division 1 2019-2020.
- Member of the *Portuguese Chemical Society* since 2014.
- Member of *Scientific Board of the Center for Physical Sciences and Technology* since 2016
- Member of the *Bioelectrochemical Society* since 2017.
- Member of Scientific Committees of several conferences
- Chairperson of the Organising Committees of the *Conference “Chemistry and Chemical Technology* (2016), the *23rd ISE Topical Meeting* (2018), *ESEAC 2020* (2020).
- Guest Editor of two *Special Issues of Electrochimica Acta* (2017 and 2019)
- Guest Editor of Special Issues of MDPI journals *Sensors* and *Molecules* (2019)
- Member of the Editorial Board of MDPI journal *Biosensors* since 2019
- Member of the FTMC Scientific Board, since 2015. Chair of the Scientific Board since 2020.

Awards

2012 FTMC Award for the Debut of the Year.

2018 Grotthuss Medal Award for organisation of the *23rd ISE Topical Meeting*

2019 Letter of Acknowledgement by Mayor of Vilnius City for organisation of two international scientific conferences in Vilnius

2019 FTMC Special Award for book “*Chemija eiliuota*” (*Poetry of Chemistry*, in Lithuanian).

A handwritten signature in blue ink, appearing to read 'Pauliukaite', written in a cursive style.

/R. Pauliukaite/