

CURRICULLUM VITAE

PERSONAL INFORMATION



Name: Slađana Strmečki Kos
Date and place of birth: 27.05.1983., Ptuj, Slovenia
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EDUCATION

2007–2012 Interdisciplinary Doctoral Study in Oceanology, Department of Geology, Faculty of Science, University of Zagreb, Zagreb, Croatia
2001–2006 Graduate study in chemistry (M.Sc. in chemistry), Department of Chemistry, Faculty of Science, University of Zagreb, Zagreb, Croatia
1997–2001 Gymnasium; Krapina High School, Krapina, Croatia

WORK EXPERIENCE

08/2022-ongoing senior research associate, Laboratory for Marine and Atmospheric Biogeochemistry (LMAB), Division for Marine and Environmental Research (DMER), Ruđer Bošković Institute (RBI), Zagreb, Croatia
04/2017 – 07/2022 research associate, LMAB, DMER, RBI
06/2015–05/2016 Postdoctoral Fellow, Institute of Biophysics, Brno (Czech Republic)
01/2013– 03/2017 senior assistant, LMAB, DMER, RBI
06/2007–12/2012 assistant, LMAB, DMER, RBI
07/2006–05/2007 associate, LMAB, DMER, RBI

SCIENTIFIC FIELD

Electrochemical characterization of polysaccharides and proteins in natural waters and model solutions; Interactions of biomolecules with metal ions and pollutants; Physico-chemical properties of organic matter in natural waters and atmosphere; Biogeochemical processes in natural waters and atmosphere

TECHNICAL SKILLS AND COMPETENCES

- Operation on a three-electrode electrochemical system 663 VA Stand connected to a μ Autolab analyzer (potentiostat / galvanostat). Use of voltammetric and chronopotentiometric methods
- Use of *ex situ* adsorptive transfer technique in biomolecule analysis
- Work on a portable electrochemical instrument Palm Sens
- Use of immunochemical techniques (dot blot, western blot) in the analysis of biomolecules such as glycals, proteins, glycoproteins
- Sampling of natural waters, treatment and conservation of samples for analysis of organic matter and trace metals

- Sampling of aerosols, rain and total atmospheric deposition, conservation of samples
- Active use of MS Windows operating system, MS Office, Origin, SigmaPlot, EndNote, ISIS Drew, Acrobat, internet ...

PROJECT LEADER

- **2021 project of the Croatian Academy of Sciences and Arts Foundation:** "Chemical speciation of copper in urban aerosol (Zagreb) and human health impact assessment".
- **06/2015-09/2016** "Electrochemical study of polysaccharide-protein molecular interactions and their relevance in the selective sensing of polysaccharides in mixtures (ELpspINT)" funded by the European Union Seventh Framework Program (FP7 2007-2013) through contract n ° 291823 **Marie Curie FP7-PEOPLE-2011-COFUND** (The new International Fellowship Mobility Program for Experienced Researchers in Croatia - **NEWFELPRO**).
Project implementation: 1.6.2015.-31.5.2016. - Institute of Biophysics, Brno, Czech Republic, 1/6/2016-30/9/2016 (return phase) - Ruđer Bošković Institute, Zagreb.

PROJECT COLLABORATOR

- **HRZZ project 3105 (2018-2023):** "Biochemical responses of the surface layer of the oligotrophic area of the Adriatic Sea to atmospheric deposition, BiREADI", leader S. Frka Milosavljević, PhD
- **HRZZ project 8607 (2014-2018):** "The impact of environmental stress on the occurrence and interaction of biologically important organic molecules and micronutrients in the marine ecosystem, AMBIOMERES", leader B. Gašparović, PhD
- **HRZZ project 7503 (2015-2019):** "New methodological approach to biogeochemical research of trace metal species in coastal aquatic ecosystems, MEBTRACE", leader D. Omanović, PhD
- **Croatian-Slovenian bilateral scientific research project (2016-2017):** "Estimating the role of marine biogenic organosulfur compounds in the formation and properties of atmospheric organic aerosols", leader dr.sc. S. Frka Milosavljević
- **NATO project (2009-2012):** "Sensors based on biomembranes for the detection of toxins and pollutants", leaders: B. Gašparović, PhD (IRB) and A. Nelson, PhD (University of Leeds, Great Britain)
- **MZOŠ (098-0982934-2717) (2007-2013):** "Nature of organic matter and interaction with microconstituents and surfaces in the environment", leader: I. Ciglencečki-Jušić, PhD
- **Norwegian Government Project (2006-2009):** Norwegian Cooperation Program on Research and Higher Education with countries in the Western Balkans: „Marine Science and Coastal Management in the Adriatic, Western Balkans. An Education and Research Network ", leaders: B. Čosović, PhD (RBI) and Prof. P. Wassmann, PhD (University of Tromsø, Norway)
- **DFG project (2006-2007):** "Electrochemical characterization of marine polysaccharides", leaders: dr.sc. M. Plavšić (RBI) and dr.sc. U. Passow (AWI, Bremerhaven)

MENTORSHIP

- **2020-2024** mentor of doctoral student Saranda Bakija Alempijević (Career Development Project for Young Researchers - Training of New Doctors of Science, DOK-2020-01)

- **Ongoing:** mentor of M.Sc. student Valentina Poplašen: Copper complexing capacity in rainwater, total atmospheric deposition and dissolved aerosols in the Brijuni National Park, Faculty of Science, University of Zagreb
- **Ongoing:** mentor of M.Sc. student Martina Matanović for M.Sc.: Influence of surface active organic molecules on electrochemical determination of copper complexation capacity in seawater, Faculty of Science, University of Zagreb
- **07/2021** mentor of student practice for student Ana-Marija Pitner, undergraduate study Ecoengineering, Faculty of Chemical Engineering and Technology, University of Zagreb
- **04/2021** supervisor of Iva Dešpoja's M.Sc. thesis: Electrochemical determination of copper complexing capacity in the surface layer of the coastal Middle Adriatic Sea, Faculty of Chemistry and Technology, University of Split
- **09/2018** mentor of student Lora Pereža for M.Sc.: Electrochemical analysis of chitosan polysaccharide and BSA protein in seawater, Department of Chemistry, Faculty of Science, University of Zagreb
- **09/2017** mentor of student practice for student Filip Kurt, undergraduate study Ecoengineering, Faculty of Chemical Engineering and Technology, University of Zagreb

AWARDS

- **2014** - award of the Division for Marine and Environmental Research, Ruđer Bošković Institute, for scientific achievement in 2013
- **2013** - annual award of the Ruđer Bošković Institute for publishing a scientific paper in 2012 in a journal with a high impact factor

SCHOLARSHIPS

- **2014** Marie Curie FP7-PEOPLE-2011-COFUND Fellowship (**NEWFELPRO**)
- **2012** COST and IRMM scholarship to participate in the workshop "Training school: Are your GEOTRACES data reliable?", Geel, Belgium
- **2001-2005** national scholarship

TRAINING AT INTERNATIONAL INSTITUTIONS

- **11/2016, 04/2017** National Institute of Chemistry, Ljubljana, Slovenia
- **06/2015-05/2016** Institute of Biophysics, Brno, Czech Republic (one-year postdoctoral training in the group of Prof. E. Paleček, PhD)
- **12/2008** Institute of Biophysics, Brno, Czech Republic

EDUCATION IN COURSES, WORKSHOPS AND SCHOOLS

- **07-10/12/2021** Environmental Science School: A Comprehensive Approach to the Research of Anthropogenic Pressures in the Environment, online
- **10/12/2020** "Step-by-step guide on how to prepare a successful paper", Springer Nature, online
- **08/04/2015** "Organic Ligands - A Key Control on Trace Metal Biogeochemistry in the Ocean", Šibenik, Croatia
- **29/05-01/06/2012** Training school: Are your GEOTRACES data reliable? ", Geel, Belgium
- **15-21/2/2009** "English writing course", Belgrade, Serbia
- **14-18/01/2008** Bath Electrochemistry Winter School, Bath, UK

- **12-16/11/2007** "Marine Chemistry-Analytical Methods, trace elements and organic matter in marine environment", Zagreb, Croatia
- **22-26/10/2007** "Marine Ecology", Kotor, Montenegro
- **22-26/05/2007** "Sediments-From Sampling to Analysis", Mljet, Croatia

MEMBERSHIPS

2018-present member of the Marie Curie Alumni Association

2016-2021 MC Substitute in COST Actions CA16109 HR (Chemical on-line composition and source apportionment of fine aerosol)

2013 Representative of Assistants of the Institute for Marine and Environmental Research in the RBI Assistant Council

2012-present member of the International Society of Electrochemistry (ISE)

2007-present member of the Croatian Society of Chemical Engineers and Technologists (HDKI)

REVIEWER

I have reviewed **papers for journals**: Electroanalysis (2009, 2010), Analytica chimica acta (2014), Journal of agricultural and food chemistry (2016), Thalassas: An international journal of marine sciences (2017), Current analytical chemistry (2 papers 2017, 1 paper 2018), Electrochimica acta (2017), Heliyon (2 papers, 2018 and 2020), Journal of electroanalytical chemistry (2019), Science of the total environment (2 papers, 2020).

EDITOR IN A SCIENTIFIC JOURNAL

2020-2022 Guest Editor in a special issue of **Water** journal (WoSCC IF = 3.530, Q2) entitled "Characterization of Organic Matter in Marine and Freshwater Environment".

CONFERENCE ORGANIZATION

- Based on the application in November 2021 Croatia received the organization of the international conference **36th ISE Topical Meeting 2024** "Marine and environmental electrochemistry in the era of new technologies", Šibenik (Amadria Park Šibenik Conference Center), **26-29 May 2024** (Chairman of the Organizing Committee)
- **25/05/2018** organization of the conference "**5th Day of Electrochemistry and 8th ISE SSRSE**", RBI, Zagreb (Chairman of the Organizing Committee)

SCIENCE POPULARIZATION

2022 participation in the Open Day of the Ruđer Bošković Institute: "Exploring the seawater and the environment"

2018 co-leader of the visit point "View into a seawater drop" of the Open Day of the Ruđer Bošković Institute

2008 and 2013 a guide during the Ruđer Bošković Institute Open Days

DRIVING LICENCE

Categories AM, B

CAREER BREAKS

03/2010-03/2011 maternity leave 1;

02/2014-03/2015 maternity leave 2;
12/2018-01/2020 maternity leave 3; **mother of three children.**