# **Curriculum Vitae**

Name:Krisztina SchrantzDate and place of birth:30. April 1971.; Novi Sad, YugoslaviaCurrent workplace:University of Szeged, Research Group of Environmental Chemistry,<br/>Szeged, Hungary, Dóm tér 7., 6720 Szeged, HungaryContact:Tel.: +36 30 429 3371<br/>e-mail: 33anit@gmai.com



### Academic degrees:

Ph. D. Chemistry, summa cum laude, 2002., University of Szeged Ttitle of the dissertation: "Equilibrium and structural investigations of organotin(IV) complexes formed with bioligands containing oxygen, nitrogen and sulphur donoratoms",

- M. Sc. Environmental Engenieer, 2009., Pannon University, Veszprém
- M. Sc. Chemistry (excellent), 1994., Faculty of Natural Sciences and Mathematics, University of Novi Sad

### Languages:

- English: Cambridge First Certificate (independent user)
- German: ZMP Goethe Institut (independent user)
- Serbo-croatian: native level
- Hungarian: mother language

# Professional background:

2014-2015	Visiting scientist, EMPA, Laboratory for High Performance Ceramics, Dübendorf, Switzerland
2012-2013	Researcher, EMPA, Laboratory for High Performance Ceramics, Dübendorf, Switzerland
2011-2012	SCIEX Fellow, EMPA, Laboratory for High Performance Ceramics, Dübendorf, Switzerland
2006-	Assistant professor at the Department of Inorganic and Analytical Chemistry, University of Szeged
2003-2005	Research fellow in the Bioinorganic Chemistry Research Group of the Hungarian Academy of Sciences
1999-2002	Assistant research fellow in the Biocoordination Chemistry Research Group of the Hungarian Academy of Sciences
1994-1999	Doctoral (Ph.D.) studies at the Department of Inorganic and Analytical Chemistry, A. József University of Szeged
1989-1994	University studies, Faculty of Natural Sciences and Mathematics, Univ. of Novi Sad

#### - 2×2 years maternity leave from March 1997 and December 2000.

#### **Research interest:**

2014-2015	Industrial project: development of superhydrophilic ceramic surfaces, measurement of their
	photocatalitic activity and self cleaning properties, surface characterization (SEM, AFM, zeta
	potential, wetting angle).

- 2011-2013 Nanobio-Interfaces for Photocatalytic Solar Hydrogen: Synthesis and characterisation of semiconductor metal oxide electrodes decorated with light harvesting proteins for photoelectrochemical water splitting application.
- 2010 **Industrial project**: Pharmaceutical waste water cleaning using Advanced Oxidation Processes and their combination; Case study and plant capacity calculations.
- 2006- Degradation of emerging pollutants (pharmaceutical residues and pesticides) using Advanced Oxidation Processes (UV, VUV, O<sub>3</sub>, O<sub>3</sub>/UV); Investigation of the degradation product toxicity, using standard methods (*D. magna, S. capricornutum, V. fisheri*); Analysis of emerging pollutants in surface and wastewaters using GC-MS and HPLC-MS techniques.
- 2003-2005 Investigation of the influence of some Al(III) complexes with simple bioligands (maltol, lactate, NTA, NTA3P) on the activity of the alkaline phosphatase (kinetic and structural studies).
- 1994-2002 Organotin(IV) complexes of carbohydrates and other biologically relevant ligands (mono- and dicarboxylic acids and their thio-analogues, sugaramins, adenosine and its derivatives ect.), containing nitrogen, oxygen and sulphur donor atoms, their preparation, equilibrium and structural studies using pH-metric, FTIR, Raman, Mössbauer and NMR spectroscopic methods.

#### **Teaching activities:**

- lectures:	Analytical Chemistry (2015-)
	Quality Management in Analytical Laboratory (2009-)
	Environmental Chemistry (2008-)
- practical courses:	Calculations in Analytical Chemistry II. (2009-)
	Chemie für Mediziner (2007-, in German)
	Instrumental Analytical Chemistry (2002-; in English, too)
	Quantitative Analytical Chemistry (1996-; in English, too)
	Preparative Inorganic Chemistry (1994-1996)
	Inorganic Chemistry (1994-1995)

- 16 diploma (BSc., MSc) and project works

#### - 3 PhD students

### Grants and awards:

09.2013-02.2014 Szent-Györgyi Albert Fellowship for experienced researchers

- 2012-2013 Velux Research Grant, EMPA, Laboratory for High Performance Ceramics, Dübendorf, Switzerland 2011-2012 SCIEX Postdoctoral Grant (18 months), EMPA, Laboratory for High Performance Ceramics, Dübendorf, Switzerland 2009 Invited locturer (1 month) at the University of Bordeaux, in the group of Dr. Helene Budzinski in the
- 2009 Invited lecturer (1 month) at the University of Bordeaux, in the group of Dr. Helene Budzinski in the Laboratory of Physico- and Toxico-Chemistry of the Environment at the Molecular Sciences Institute (ISM, UMR 5255 CNRS)
- Bolyai János Hungarian Fellowship, Hungarian Academy of Sciences
  3 months Eötvös Postdoctoral Grant (Balassi Institute-Hungarian Scholarship Board Office)
  in the laboratory of Prof. Damiá Barceló, IIQAB-CSIC, Department of Environmental Chemistry, Barcelona, Spain
- 2006-2007Supplementary Postdoctoral Scholarship (KPÖ 0104/2006), Hungarian Ministry of Education2006Sigma award
- 2003-2006 Békésy György Postdoctoral Scholarship (BÖ 9/2002), Hungarian Ministry of Education

# Trainings:

- 1. NATO Advanced Study Institute Cytotoxic, Mutagenic and Carcinogenic Potential of Heavy Metals Related to Human Environment, Przesieka, Poland, 15-26. June 1996.
- **2.** 2<sup>nd</sup> International School of Organometallic Chemistry, Camerino, Italy, 11-15. September 1999.
- **3.** XXXVII. Training Course in Chromatography, Szeged, Hungary, 25-27. January 2006.
- 4. Sample Preparation for Chromatographic Methods, Budapest, Hungary, 13-15. February 2006.
- 5. Comprehensive HPLC Seminar, Budapest, Hungary 18. September 2006.

### Memberships:

Hungarian Chemical Society Hungarian Academy of Sciences, Division of Analytical Chemistry Commitee for Labour Safety and Wastemanagement, University of Szeged

#### Other:

- Guest editor for a special issue of the International Journal of Photoenergy, 2012-2013
- Referee for Toxicological & Environmental Chemistry, Chemosphere, Chromatographic Science, Environmental Science and Technology, Environmental Engineering and Management Journal Clean – Soil air water, Ozone Science and Hungarian Journal of Chemistry (Magyar Kémiai Folyóirat)

$\Sigma$ publications:	57
$\Sigma$ ind. cit. (cit.):	458 (596)
<b>Σ</b> imp.:	83.0

Kninhing Schrautz

Szeged, 17. December 2015.

Dr. Krisztina Schrantz