

Professor Vladimir N. ZAITSEV,

(Ph.D., D.Sc., Corr. member of NAS of Ukraine)

11 October 1958

ResearcherID: H-7295-2012, **ORCID:** 0000-0001-5067-3658

Email: vnzaitsev@puc-rio.br

Current position: Professor at Pontifícia Universidade Católica do Rio de Janeiro (Brazil)

Current work address: R. Marquês de São Vicente, 225 Rio de Janeiro, 22453-900 Brazil

Fields of research interest: Organo-mineral materials, interfacial phenomena. Application in analytical chemistry, drug delivery, biotechnology and catalysis.

High education

76-81 **University** (M.Sc.) at Kiev State University, Kiev Ukraine in Inorganic Chemistry

81-84 **Post-graduate education** (PhD) at Kiev State University, Kiev Ukraine

Degrees

11/1981 **Master of Science** at Kiev State University (supervisor Prof. Viktor Skopenko), Kiev Ukraine, inorganic chemistry (honored);

02/1985 **Candidate of sciences** at Kiev State University (Advisor Prof. Viktor Skopenko), Kiev Ukraine, inorganic chemistry;

10/1997 **Doctor of sciences** (Habilitation) at Taras Shevchenko University, Kiev Ukraine

Career development

14 – now Professor at Pontifícia Universidade Católica do Rio de Janeiro, Brazil

12 – 14 Professor at Taras Shevchenko National University, Kiev Ukraine

00- 12 Chair of Analytical chemistry department, Taras Shevchenko National University, Kiev

97- 00 Professor at Taras Shevchenko National University, Kiev Ukraine

92- 97 Associate Professor at Kiev State University, Kiev Ukraine

91 - 85 Assistant Professor at Kiev State University

Post-doctoral training

90 – 91 The British Council Scholarship at University of Southampton, England (Prof. John Evans)

95 – 95 Fulbright research fellowship at Texas A&M University, College Station USA (Prof. David Bergbreiter)

Awards and Honor degrees

- Visiting Professor (Joliot Chair) at ESPCI ParisTech, Paris France **2012**
- Visiting professor at Laboratoire Interdisciplinaire Carnot de Bourgogne, CNRS Universite' de Bourgogne, Dijon France **2009**
- National Ukraine state Prize in science and technology **2007**
- CNRS visiting researcher at LPM-UMR 5511-CNRS/INSA Lyon, France **2004**
- Certificate of full Professor from Ministry of High education of Ukraine **2001**
- FAPESP visiting professor at University of Campinas (Professor G. Yoshitaka), Brazil **2000**
- Soros' docent – Award from International Science Foundation (USA) **1997**
- Certificate of Associate Professor from Ministry of High education of Ukraine **1993**

Memberships and Fellowships

- Vice-chair of Supreme State Attestation committee of Ukraine for scientific evaluation **2013-2015**

- Member of Scientific advisory board of the Organization for the Prohibition of Chemical Weapons **2010-2017**
- National Academy of Sciences of Ukraine (correspondent member) **elected in 2009**
- Chair of analytical chemistry council at NAS of Ukraine **2006-2016**
- Member of Analytical Chemistry division of European Association for Chemical and Molecular Sciences **from 2007**
- Academy of High Education of Ukraine **elected in 2004**
- Fulbright fellowship **1995**
- The British Council Scholarship **1990**

Teaching experience

- Chemistry of elements – Inorganic chemistry II (at Kiev National University) graduate students – 5 years
- Instrumental methods of chemical analysis – Analytical chemistry II (at Kiev National University) for graduate students – 12 years
- Nanochemistry - (at Kiev National University and PUC-Rio) postgraduate students – 5 years
- Advances in spectroscopy (at Kiev National University and PUC-Rio) postgraduate students – 5 years
- Methods of preparation, investigation and application of adsorbents in analytical chemistry and for water purification (at Kiev National University and PUC-Rio) postgraduate students – 7 years

Invited lectures outside of Ukraine and Brazil

- Pacific Northwest National Laboratory, USA (1995)
- Hoechst Celanese Corporation , Corpus Christi, TX USA (1995)
- University of Oregon USA (1995),
- University of Washington, USA (1995)
- Pittsburgh University, USA (1995),
- Texas A&M University USA (1995)
- University of Campinas, Campinas, Brazil (2000)
- Florida State University, Tallahassee USA (2001)
- INSA-Lyon, Lyon France visiting professor (2004)
- Université de Bourgogne, Dijon France visiting professor (2009)

Editorial Boards

- Methods and Objects of Chemical Analysis (Editor-in-chief)
- Journal of Analytical Chemistry
- Chemistry, Physics and Technology Of Surface
- Chemical Papers
- J Water Chem. and Technology

Current Responsibility

- Head of Scientific Council of Analytical Chemistry at Academy of Sciences of Ukraine
- Editor of a scientific journal “Methods and objects of chemical analysis”
- Member of State Accreditation Committee at Ministry of high education and sciences of Ukraine
- Member of Analytical division of European Association of Chemical Societies
- Member of Scientific Advisory Committee in organization of Prohibition of Chemical Weapons (OPCW)

Main international research projects

SNPQ (Brazil)

2014-2018

Programa Ciência sem Fronteiras (PVE) 401383/2014-8 - Fabricação de SiC e nano-diamantes partículas híbridas com fotorreceptores imobilizados e sua aplicação bio-analítica para libertação controlada de fármacos

2016-2019

Produtividade em Pesquisa – (PQ) 304622/2015-0. Funcionalização de Si, SiC, e partículas de nano - diamantes, para a sua aplicação bio-analítica e entrega da droga

FP7 (EU)

2012-2014

IRSES 2012-319013. Siccatalysis— porous silicon carbide as a support for co metal nanoparticles in fischer–tropsch synthesis

2011-2014

IRSES 2010-269099. Fabrication of particles with photo receptors: bio-analytical application such as controlled drug delivery

2010-2013

IRSES 2009-247603. Sol-gel materials synthesis and characterization for optical sensing

INTAS (EU)

1994-1997

INTAS 94-2522. Novel bonded oxides with covalently immobilised organic ligands for chemical sensors development

1997-2000

INTAS 97-1116. Covalently bonded acids in catalysis

2000-2003

INTAS 00-291. Biomimetic catalysts obtained by surface modification for green chemistry processes

2005-2008

INTAS 05-7729. Hydrogen reservoirs based on porous silicon nanostructures for portable devices

NATO (int.)

2006-2009

NATO Science for peace SFP 981786. Development of a novel sensing technique based on nanomechanics for rapid detection of bioagents

1999-2003

NATO Science for peace SFP 97-1896. Superacid solids

CLG 976724

Development of integrated technology for heavy metal recycle from nickel-containing wastewater and sludge

Nukr.Rig.981555

New functionalised materials for removal of pollutants from drinking and wastewater

CNRS (France)

2006-2007

04-118. Microfluidic system based on porous silicon

International scientific conferences organizer

1994 The Ukraine-USA summer school on chemistry & physics of surfaces.

<http://www.achem.univ.kiev.ua/conference/passed/sschul94.htm> (co-chair of organizing committee) – supported by NSF (USA) and European research office of the US Army

2002 International pre-conference school "New functional materials in chemical analysis"

<http://www.achem.univ.kiev.ua/conference/passed/school.htm> (chair of organizing committee) – supported by INTAS (EU).

2002 International conference "Functionalized materials: synthesis, properties and application"

http://www.achem.univ.kiev.ua/conference/fun_en1.htm (chair of organizing committee)

2005 International conference "Analytical chemistry and chemical analysis (AC&CA-05)"

<http://www.achem.univ.kiev.ua/conference/2005/babko/index.htm> (chair of organizing committee) supported by IUPAC, European Association for Chemical and Molecular Sciences and INTAS (EU)

2005 9th Analytical Russian-German-Ukrainian Symposium (ARGUS-9)

<http://www.achem.univ.kiev.ua/conference/2005/argus/argus9.htm> (chair of local organizing committee)

2000-2013 Annual meeting of Analytical chemistry Council of Ukraine (Chair of organizing committee)

PhD supervisor

| Name | Year of PhD | Name | Year of PhD | Name | Year of PhD |
|-------------|-------------|-----------------|-------------|--------------|-------------|
| N. Donskaya | 1994 | V. Khalaf | 2006 | A. Syrotchuk | 2017 |
| A. Pecheny | 1996 | O. Konoplytska | 2009 | I. Zakharkiv | 2017 |
| S. Alekseev | 2002 | T. Reva | 2010 | D. Korytko | 2017 |
| V. Oleynik | 2002 | N. Kobylinskaya | 2010 | O. Ivanova | 2018 |

Share PhD supervisor

T. Kovalchuk 2003 (with Prof. J. Fraissard, University P&M Currie, France)

I. Shupyk 2007 (with Prof. François Bozon-Verduraz University P&M Currie, France)

N. Shevchenko 2013 (with Prof. Alain Walcarius, Nancy Universite, France)

M. Mazur 2014 (with Prof. Sabine Suneritz, Lille University, France)

V. Turcheniuk 2017 (with Prof. Sabine Suneritz, Lille University, France)