

Curriculum Vitae

Personal information

Surname/ First name(s)

Eliseeva Svetlana V.

Researcher ID

A-7036-2010

Current working address

CBM CNRS, UPR 4301
Rue Charles Sadron
F-45071 Orléans (France)

Telephone

+33 2 38 25 56 52

E-mail

svetlana.eliseeva@cnrs-orleans.fr

Education and training

Dates

01 November 2003 - 31 December 2006

Title of qualification awarded

Candidate of sciences diploma (equivalent of PhD)

Principal subjects / occupational skills covered

Thesis title: "Synthesis, structure and photophysical properties of rare-earths aromatic carboxylates and β -diketonates". Supervisor: Prof. Natalia P. Kuzmina

Name and type of organisation providing education and training

Department of Chemistry, Lomonosov Moscow State University
1-3, Leninskie Gory, 119991 Moscow (Russian Federation)

Dates

01 September 1998 - 30 June 2003

Title of qualification awarded

Specialist diploma (with honours) in Chemistry (equivalent of Master)

Name and type of organisation providing education and training

Department of Chemistry, Lomonosov Moscow State University
1-3, Leninskie Gory, 119991 Moscow (Russian Federation)

Dates

01 March 2005 - 31 March 2005

Title of qualification awarded

Certificate

Principal subjects / occupational skills covered

Theoretical and experimental principles of X-ray single crystal analysis including solving and refinement of crystal structures

Name and type of organisation providing education and training

Prof. Vadim G. Kessler, Department of Chemistry, Swedish University of Agricultural Sciences
P.O. BOX 7015, 750 07 Uppsala (Sweden)

Research experience

Dates

01 February 2015 – till present

Occupation or position held

Associate scientist 1st class (Chargé de recherche premier class)

Main activities and responsibilities

Creation (design, characterization and use) of lanthanide-based luminescent bioprobes for imaging applications.
Measurements and analysis of photophysical data.
Luminescent macro- and microscopy.

Name and address of employer

Centre de Biophysique Moléculaire CNRS, UPR 4301
Rue Charles Sadron, F-45071 Orléans (France)

Dates

01 May 2013 – 31 January 2015

Occupation or position held

Marie Curie Fellow (IEF DENDRIMAGE)

Main activities and responsibilities

Creation (design, characterization and use) of lanthanide-based luminescent bioprobes for imaging applications.
Measurements and analysis of photophysical data.
Luminescent macro- and microscopy.

Name and address of employer

Prof. Stephane Petoud, Centre de Biophysique Moléculaire CNRS, UPR 4301
Rue Charles Sadron, F-45071 Orléans (France)

Dates

19 September 2011 - 30 April 2013

Occupation or position held

Le STUDIUM® researcher

Main activities and responsibilities

Creation (design, characterization and use) of lanthanide-based luminescent bioprobes for imaging applications.
Measurements and analysis of photophysical data.
Luminescent macro- and microscopy.

Name and address of employer	Le STUDIUM®, Institute for Advanced Studies, Orléans & Tours (France) Prof. Stephane Petoud, Centre de Biophysique Moléculaire CNRS, UPR 4301 Rue Charles Sadron, F-45071 Orléans (France)
Dates	02 August 2010 – 31 July 2011
Occupation or position held	Postdoctoral fellow (FWO grant)
Main activities and responsibilities	Research on the project "Heteropolymetallic f-d complexes as contrast agents for multimodal imaging: synthesis and spectroscopic properties"; co-supervision of PhD and MSc projects. Responsible of spectroscopic equipment in the laboratory; training of users.
Name and address of employer	Profs. Koen Binnemans and Tatjana Parac-Vogt, Laboratory of Coordination Chemistry, Department of Chemistry, Katholieke Universiteit Leuven Celestijnenlaan 200F – bus 2404, B-3001 Heverlee (Belgium)
Dates	01 January 2009 –30 June 2010
Occupation or position held	Scientific collaborator
Main activities and responsibilities	Synthesis (water-in-oil microemulsion technique) and complete investigation (SEM, TEM, IR spectroscopy, photophysical properties) of dye-containing silica nanoparticles suitable for biological applications, ELISA technique. Development of highly luminescent β -diketonates for application in OLEDs. Investigation of non-linear luminescence properties of lanthanide coordination compounds (multiphoton microscopy and spectroscopy). Acquisition and analysis of photophysical data (low- and high-resolution, time-resolved luminescence spectra, lifetimes, absolute quantum yields in visible and near-infrared ranges; absorption, reflection and excitation spectra) of series of lanthanide-containing complexes with organic ligands, lanthanide luminescent bioprobes, and other coordination compounds. Time-resolved microscopy with lanthanide luminescent bioprobes. Responsible of spectroscopic equipment in the laboratory; training of users. Literature compilation and writing of review articles.
Name and address of employer	Prof. Jean-Claude G. Bünzli, Laboratory of Lanthanide Supramolecular Chemistry, Swiss Federal Institute of Technology BCH 1402, CH-1015 Lausanne (Switzerland)
Dates	01 March 2007 – 31 December 2008
Occupation or position held	Postdoctoral fellow/Consultant
Main activities and responsibilities	Development of mixed protonic-electronic conductors based on barium cerate for solid-oxide fuel cells (SOFCs): (1) synthesis of ceramic materials in ionic liquids, (2) microwave-assisted synthesis of nano-sized oxides, (3) preparation of dense ceramic membranes, (4) conductivity tests, (5) analysis by X-ray diffraction, microscopic methods like SEM and EDX, thermal analysis, dilatometry.
Name and address of employer	Prof. Andrey Kaul, Laboratory of Chemistry of Coordination Compounds, Department of Chemistry, Materials Sciences, Lomonosov Moscow State University (LMSU) 1-3, Leninskie gory, 119991 Moscow (Russian Federation) Drs. Christian Guizard, Agnès Princivalle, Laboratory of Synthesis of Functional Ceramics, Saint-Gobain C.R.E.E. 550, Avenue Alphonse Jauffret, 84306 Cavailon (France)
Dates	01 October 1998 – 31 December 2008
Occupation or position held	Scientific collaborator
Main activities and responsibilities	Development of research projects performed in the laboratory: literature overview; synthesis and characterization of lanthanide and alkali earth coordination compounds, investigation of their volatility and luminescent properties, thin film deposition by MOCVD and spin-coating techniques, fabrication of simple OLEDs; presentation of the results at international conferences and writing of reports.
Name and address of employer	Laboratory of Chemistry of Coordination Compounds, Department of Chemistry, Materials Sciences, Lomonosov Moscow State University 1-3, Leninskie gory, 119991 Moscow (Russian Federation)
Publications	64 original papers, 5 patents, 7 reviews, 2 book chapters, 5 proceedings/ <i>h-index</i> 22

Teaching Experience	
Lecturer	2007-2008: Internet course on nanomaterials and nanotechnology "Coordination compounds and organic electroluminescent devices (OLEDs)" (32 hours), Lomonosov Moscow State University
Teaching assistant	2004-2005: Lectures, practice, exercises on general, inorganic chemistry and materials science for undergraduate students (totally 500 hours), Lomonosov Moscow State University
Supervisor	
Undergraduate students (laboratory course works on inorganic chemistry)	2000-2001: Alexander Balashov (LMSU), excellent grade, "the best course work" 2003-2004: Natyukan Alexey (LMSU), excellent grade, "the best course work" 2004-2005: Mizerev Artem and Frolov Vladimir (LMSU), excellent grades 2005-2006: Pleshkov Dmitry (LMSU), excellent grade, "the best course work" 2007-2008: Osadchaya Veronika (LMSU), excellent grade
Bachelor students	2008-2009: Pleshkov Dmitry (LMSU), excellent grade
Master students	2009-2011: Pleshkov Dmitry (LMSU), excellent grade 2010-2011: Co-supervisor, Thomas Suetens (Katholieke Universiteit Leuven), excellent grade 02.2012-04.2012: Training and supervision of Valerii Liasotskyi and Iurii Golovach (Odessa I.I. Mechnikov National University, Ukraine) within French-Ukrainian program.
PhD students	2010-2011: Active participation in daily supervision and development of three PhD projects of the following students (Department of Chemistry, Katholieke Universiteit Leuven, Belgium): Geert Dehaen, successfully defended his PhD work in December 2011 Elke Debroye, successfully defended her PhD work in September 2013 Sophie Carron. 06.2012-07.2012: Training and supervision of Denitsa Elenkova (University of Sofia, Bulgaria) within COST action CM1006. 01.06.2012-31.01.2014: Active participation in supervision of a biologist Alexandra Foucault-Collet (University of Orleans-CNRS UPR 4301) 01.09.2013-31.08.2016: Co-supervisor, Ivana Martinic (Marie Curie ITN fellow-CNRS UPR 4301)
Organisation of conferences	International Le STUDIUM® Conference: "Lanthanide-Based Compounds: from Chemical Design to Applications" This conference included 1 plenary and 18 (13 of them foreign) invited speakers. July 11-12, 2013, Orléans, France. Web page: http://www.lestudium-ias.com
Invited talks	251st American Chemical Society National Meeting & Exposition. 2016, San Diego, USA: Visible and Near-Infrared Luminescence of Heterometallic Metallacrowns Incorporating Ga(III) and Ln(III) ions International Le STUDIUM® conference: "Medicinal flavor of metal complexes". 2015, Orléans, France: Luminescent Lanthanide(III)-based Metallacrowns as Promising Agents for Optical Imaging Applications September 27, 2013 at Department of Chemistry, KU Leuven, Belgium "Visible and near-infrared lanthanide luminescence: from fundamental research to biological imaging applications" International Le STUDIUM® conference: "Lanthanide-Based Compounds: from Chemical Design to Applications". 2013, Orléans, France: Near-infrared emitting lanthanide compounds for biologic imaging in cells and small animals March 1, 2012 at Le STUDIUM® Thursday (broad audience seminar), Orléans, France "Rare earths: jewels of functional materials of the future" International Le STUDIUM® conference: "Rare Earth Elements in our Environment" 2012, Orléans, France: Rare earths: jewels of functional materials of the future 26th Rare Earth Research Conference RERC11 2011, Santa Fe, USA: Rational tuning of structural and luminescent properties of lanthanide hexafluoroacetylacetonate ternary complexes and coordination polymers
Oral presentations	EuCheMS Chemistry Congress 2016, Seville, Spain: Visible and Near-Infrared Emitting Lanthanide(III) Metallacrowns and Their Use as Optical Imaging and Cell Fixation Agents Rare Earths 2016 2016, Sapporo, Japan: Zn(II)/Ln(III) and Ga(III)/Ln(III) Metallacrowns as Visible and Near-Infrared Probes for Biological Imaging 9th International Conference on f-elements. 2015, Oxford, UK: Design of Near-Infrared Luminescent Lanthanide-Containing Metallacrowns XIII International Symposium on Inorganic Biochemistry. 2015, Karpacz, Poland: Near-Infrared Emitting Lanthanide-Containing Metallacrowns as Novel Imaging

Agents for Cellular Biological Imaging
Sixth North America-Greece-Cyprus-Workshop on Paramagnetic Materials.
 2015, Athens, Greece: Luminescent Zn₁₆Ln Metallocrown Complexes
COST Action TD1004, Theragnostic Imaging and Therapy
 2014, Istanbul, Turkey: Near-infrared emitting Zn^{II}-Ln^{III} "encapsulated sandwich" metallocrowns
FrenchBIC, French Group of BioInorganic Chemistry
 2014, Anglet, France: Near-infrared emitting Zn^{II}-Ln^{III} "encapsulated sandwich" metallocrowns
COST Action CM1006, European f-Elements Chemistry EUFEN3
 2014, Nüremberg, Germany: Overcoming Low Quantum Yields of Near-Infrared Emitting Lanthanides(III): Metallocrowns and Polyamidoamine Dendrimers
8th International Dendrimer Symposium
 2013, Madrid, Spain: Naphthalimide-functionalized polyamidoamine dendrimers as sensitizers of lanthanide luminescence and cell imaging probes
8th International Conference on f-elements
 2012, Udine, Italy: Polymetallic luminescent lanthanide dendrimers emitting in the visible and in the near-infrared
International Summer School "Supramolecular Chemistry in Materials Science"
 2010, Krutyn, Poland: Luminescent coordination polymers assembled from lanthanide β-diketonates and aromatic bidentate O-donor ligands
Tage der Seltenen Erden - TerraeRarae
 2008, Bochum, Germany: Tuning of the luminescent properties of Eu^{III} and Tb^{III} hexafluoroacetylacetonates by insertion bidentate O-donor ligands
International Chugaev Conference on Coordination Chemistry
 2007, Odessa, Ukraine: Rare-earth(III) fluorinated and bulky β-diketonates with N,N-dimethylamino-ethanol
XVIII Mendeleev Congress on General and Applied Chemistry
 2007, Moscow, Russia: Terbium(III) aromatic carboxylates: from coordination compounds to electroluminescent materials
Junior International Conference on Fundamental Sciences "Lomonosov", Moscow, Russia
 2006: Synthesis, structure and physical-chemical properties of dimeric rare-earths β-diketonates with aminoalcohols
 2005: Mixed-ligand hexafluoroacetylacetonates of rare earth elements with 4-cyanopyridine-N-oxide: synthesis, crystal structure and photoluminescent properties
 2004: Synthesis, characterization and luminescent properties of rare earth complexes with 2-pyrazinecarboxylic acid
 2003: Terbium(III) complexes with aromatic carboxylic acids: synthesis, photo- and electroluminescence
 2002: Synthesis and luminescent properties of terbium(III) complexes with carboxyphenylhydrazones of β-diketones
 2000: Pivaloylacetonates of alkali-earth elements and mixed-ligand complexes based on them
 1999: Synthesis and investigation of lanthanum pivaloylacetonate

6th International Conference on Excited States of Transition Elements (ESTE 2016) and LUMINET meeting
 2016, Polanica-Zdroj, Poland: Novel Perspectives in Near-Infrared Optical Imaging with Lanthanide-Based Molecules, Macromolecules and Nanomaterials
World Molecular Imaging Congress (WMIC)
 2015 Honolulu, HI, USA: Near-Infrared Optical Imaging Agents with Dual Function: Probe for Necrotic Cells and Cell Fixation Agents for Assays in vitro
Biodendrimer 2014
 2014, Lugano, Switzerland: Polynuclear polyamidoamine dendrimers as the first imaging agents emitting visible and NIR signals through lanthanide cations
International Conference on Luminescence of Lanthanides
 2010, Odessa, Ukraine: Designing highly luminescence materials based on ternary complexes of lanthanide β-diketonates
Annual meeting of the Swiss Chemical Society, Lausanne, Switzerland
 2009: Overcoming limitations of lanthanide luminescent bioprobes
International Conferences on f-elements
 2009, Cologne, Germany: Enlarging the capability of lanthanide helicates as bioprobes: nanoparticles and multi-photon excitation
 2006, Wrocław, Poland: Luminescent and structural characteristics of new dimeric complexes of lanthanide β-diketonates with N,N-dimethylethanolamine and 4-cyanopyridine-N-oxide
International Chugaev Conference on Coordination Chemistry

Poster presentations
 (selected)

2005, *Kishinev, Moldova*: Complexes of rare-earth elements with 2-pyrazinecarboxylic acid: synthesis, crystal structure and photoluminescent properties

2003, *Lausanne, Switzerland*: Synthesis, characterization and luminescence properties of europium(III) and terbium(III) complexes with 2-pyrazinecarboxylic acid. Crystal structure of $\text{Eu}(\text{pyca})_3 \cdot 7\text{H}_2\text{O}$

17th International Symposium on the Photochemistry and Photophysics of Coordination Compounds

2007, *Dublin, Ireland*: Lanthanide(III) *ortho*-substituted benzoates as potential luminescent materials

International Summer School "Advanced luminescent materials based on lanthanide organic/inorganic complexes"

2005, *Krutyn, Poland*: Complexes of lanthanide(III) hexafluoroacetylacetonates with 4-cyanopyridine-*N*-oxide as potential materials for organic light-emitting diodes (OLEDs). Synthesis, crystal structure and photoluminescent properties

School-seminars "Actual problems of modern inorganic chemistry and material science", Moscow region, Russia

2005: Crystal structure and photoluminescent properties of dimeric complexes based on rare-earth hexafluoroacetylacetonates

2004: 2-pyrazinecarboxylates of rare earth elements: synthesis, thermal stability and photoluminescent properties

2002: Arylhydrazones of β -diketones for synthesis of functional coordination compounds

International Workshop "High-Temperature Superconductors and Novel Inorganic Materials Engineering"

2004, *Moscow, Russia*: The terbium(III) aromatic carboxylates as electroluminescent materials in organic light-emitting diodes (OLEDs)

Reviewing activity

Reviewer at International journals

Journal of the American Chemical Society
Chemistry-An Asian Journal
Organic Letters
RSC Advances
Dalton Transactions
New Journal of Chemistry

Advanced Functional Material
Inorganic Chemistry
Chemical Communications
Analyst
European Journal of Inorganic Chemistry
Journal of Luminescence

PhD thesis jury member

Debroye Elke "Luminescent MRI contrast agents for molecular imaging"
September 27, 2013. KU Leuven, Belgium

Scientific awards and prizes

2014: Second place in poster's competition at *Biodendrimer 2014*

2011: *Scopus Award Russia* as an author of the most significant and actual scientific publications in international literature in chemistry in 2010

2010: *FINELUMEN* scholarship for participation in VIth International Summer School

2008 and 2009: Award of *Russian Academy of Scientists* as a best candidate of sciences

2006: Scholarship of *LG Chem* Company

2005: Award for PhD students from *Moscow Department of Education* (with assistance of *International Soros Science Education Program* (ISSEP))

2004 and 2005: Scholarship of *Lomonosov Moscow State University* for young teachers and scientists, achieved significant results in pedagogical and scientific work

2003 and 2006: Awards of the *European Rare Earths and Actinide Society* for participation in ICFE

2003: *Academician V.I. Spitsyn* award for best work of young scientists in the field of inorganic and coordination chemistry

1999, 2000, 2003 and 2004: Different awards at *Lomonosov Junior International Conferences*