

CURRICULUM VITAE

BUSINESS ADDRESS

Institute for Chemical Reaction Design and Discovery (WPI-ICReDD)
Hokkaido University
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PROFESSIONAL AND EDUCATIONAL HISTORY

- 1984 – 1986 [Physics and Mathematics Lyceum No 239](#), St Petersburg, Russia
- 1986 – 1995 **Student and PhD student**, Faculty of Physics, St Petersburg State University, Russia
- 1995 – 1996 **Junior Researcher**
V. A. Fock Institute of Physics, St Petersburg State University, Russia
- 1996 – 1999 **Researcher**
V. A. Fock Institute of Physics, St Petersburg State University, Russia
- 2000 – 2000 **The Royal Society/NATO Fellowship**
Department of Physics, Imperial College London, UK
- 2001 – 2014 **Senior Research Scientist** (equivalent to **Associate Professor**)
V. A. Fock Institute of Physics, St Petersburg State University, Russia
- 2001 – 2001 **Visiting Researcher**
Institute for Theoretical Physics, J.-W. Goethe University, Frankfurt am Main, Germany
- 2002 – 2004 **Alexander von Humboldt Fellowship**
Institute for Theoretical Physics, J.-W. Goethe University, Frankfurt am Main, Germany
- 2005 – 2008 **FIAS Researcher**
Frankfurt Institute for Advanced Studies (FIAS), J.-W. Goethe University, Frankfurt am Main, Germany
- 2007 – 2008 **Research Associate**
Department of Physics, Imperial College London, UK
- 2008 – 2012 **Researcher** (from 2013 until now – associated group member)
Department of Chemistry, Faculty of Science, Hokkaido University, Japan
- 2013 – 2015 **Assistant Professor**
Elements Strategy Initiative for Catalysts and Batteries (ESICB), Kyoto University, Japan
- 2015 – 2019 **NIMS Special Researcher** (from April 1st 2019 – **Visiting Researcher**)
National Institute for Materials Science (NIMS), Japan
- 2019 – now **Associate Professor**
Institute for Chemical Reaction Design and Discovery (ICReDD), Hokkaido University, Japan

SCIENTIFIC DEGREES

- 1992: **Master of Science in Physics** (*diploma with excellence*), St Petersburg State University, Russia
1995: **Ph.D. in Physics and Mathematics**, St. Petersburg State University, Russia

FELLOWSHIPS

- 2000 – 2000 **The Royal Society/NATO Fellowship**, Department of Physics, Imperial College London, UK
Theme: “*Hartree-Fock deformed jellium model for metal clusters*”
(host **Prof. Jean-Patrick Connerade**)
- 2002 – 2004 **Alexander von Humboldt Fellowship**, Institute for Theoretical Physics, Goethe University Frankfurt, Germany
Theme: “*Many-body theory for deformed metal clusters*”
(host: **Prof. Dr. Dr. h.c. mult. Walter Greiner**)

AWARDS

- 1993-1995 **Russian President's award** for the outstanding progress in study and scientific research, Russia
- 1997 **Personal Grant of the Ministry of Science of the Russian Federation** for outstanding young scientists, Russia
- 1997-2000 **Prize winner** of the Russian Government's competition for outstanding young scientists
- 1998-1999 **Prize winner** of the St. Petersburg city competition for young scientist, Russia
- 2001 **Prize winner** of the competition for young scientists supported by the Russian Foundation of Basic Research (RFBR 01-02-06451), Russia

MAJOR RESEARCH FIELDS AND PROFESSIONAL INTERESTS

Physical chemistry; theoretical and computational chemistry; energy conversion and storage; materials chemistry; electrochemistry; electrocatalysis; nanocatalysis; theoretical design of new functional materials; sustainable energy and chemical processes; theoretical physics; condensed matter physics; two dimensional materials; molecular self-assembly; electronic structure theory; X-ray spectroscopy; many-body theory; high-performance computing.

SPECIAL SKILLS

Theoretical and computational chemistry; density-functional theory and ab initio many-body theory; molecular dynamics; theoretical atomic, molecular and solid state physics; nanoscience; surface science; computational materials science; high-performance computing; scientific programming in Fortran 77/90, C++; code development; expertise in ab initio and DFT electronic structure calculation packages (GAUSSIAN, SIESTA, QUANTUM ESPRESSO, PWSCF, VASP, CASTEP, etc.).