Curriculum Vitae Olga V. Safonova

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Scientific interests *Heterogeneous catalysis, in situ/operando spectroscopy, X-ray spectroscopy*

Publications (>150 papers, h-index 43)
https://scholar.google.com/citations?hl=de&user=uwJRTncAAAAJ&view_op=list_works&sortby=pubdate

Education

Sept 1998-Jun 2002 Doctoral thesis (PhD), Chemistry Department of Lomonosov Moscow State University, Moscow, Russia

Sept 1993-Jun 1998 Diploma, Chemistry Department of Lomonosov Moscow State University, Moscow, Russia.

Employment history and institutional responsibilities

since Nov 2010 Senior scientist, Operando X-ray Spectroscopy (IXS) group, Paul Scherer Institute

- Development of X-ray absorption fine structure (XAFS) methods with enhanced chemical sensitivity and time-resolution for catalytic applications
- Operation and development of SuperXAS beamline at the Swiss Light Source
- Collaboration with Swiss and international users
- Acquisition of funding
- Supervision of PhD students

Apr 2006 - Nov 2010 Scientist at the Swiss Norwegian beamlines (SNBL) at European Synchrotron Radiation Facility (ESRF), Grenoble, France

- Development of synchrotron based XAFS and X-ray diffraction methods for in situ/operando catalytic applications
- Operation and development of SNBL beamline
- Development of operando flow reactor and setup for XAFS/XRD studies at high pressures
- Collaboration with international users

Feb 2003-March 2006 Post-doctoral fellow at the High-brilliance X-ray spectroscopy beamline (ID26), ESRF, Grenoble, France

- Operation and development of ID26 beamline
- Development of high-energy-resolution XAFS methods for catalytic applications
- Collaboration with international users

Current research projects

SNSF (2018-2022) 200021_179132, PI*,* 560 KCHF
Uncovering dynamic structure of active sites in selective oxidation catalysts using time-resolved X-ray absorption spectroscopy

SNSF-Sinergia CRSII5_183495 (2019-2023), co-PI, 213 KCHF
Tailored CO_2 Hydrogenation Catalysts for Selective Methanol Synthesis via Structure-Activity Relationship across Time and Length Scale

EU Horizon 2020-MSCA-ITN-2020 Proposal 955650, co-PI, 562 KCHF
CATCHY: Design, implementation and production upscaling of novel, high-performance, cluster-based catalysts for CO_2 hydrogenation

SNSF NCCR Catalysis, co-PI, 175 KCHF
A high-throughput operando approach to catalyst discovery and development: bi-metallic particles catalysts for deoxygenation catalysis as a case study

Past research projects

SNSF 200021_140750 (2013-2017) PI, 237 KCHF
Preferential CO oxidation on well-defined ceria nanoparticles promoted by Pt, Au and Cu: Deciphering the structure of reactive sites using in situ high-energy-resolution XAS / XES and infra-red spectroscopy.

SNSF-ANR (2015-2019) co-PI, 258 KCHF
200021L_157146: Monitoring active sites of metathesis catalysts: a combined operando spectroscopy and computational approach.

Co-supervision of junior researchers

Current PhD students: Anna Zabilska, Ilia Sadykov, Jan Alfke, Sumant Phadke;
*Postdoc*s: Stephan Pollitt

Former PhD students: René Kopelent (ETH Zurich), Ka Wing Chan (ETH Zurich)

Memberships in panels, boards, reviewing activities and expert services

Proposal reviewing:	European Research Consul (ERC) Proposal reviewing for US Department of Energy (DOE), Netherlands Organization of Scientific Reasearch (NOW) ETH Zurich Research Commission
Papers reviewing:	Nature Communications, Nature Catalysis, Angewandte Chemie, ACS Catalysis, ACS Applied Energy Materials, Communications Chemistry, Inorganic Chemistry, Journal of Physical Chemistry C, Chemical Physics Letters, Langmuir, Applied Catalysis B, Journal of Synchrotron Radiation

Career breaks

Nov 2012 - May 2013	Maternity leave
Dec 2014 - Aug 2015	Maternity leave

Languages:	Russian (mother tongue), English (fluent), Italian (fluent), French (fluent), German (intermediate)