

BRIEF CURRICULUM VITAE

OXANA A. KHOLDEEVA



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Date and place of birth May 2, 1961, Novosibirsk
Nationality Russian

Education

2006 – Doctor of Sciences, Boriskov Institute of Catalysis, Novosibirsk
Thesis: Selective Liquid Phase Oxidations with Molecular Oxygen and Hydrogen Peroxide in the Presence of Catalysts “Metal Ion in Inorganic Matrix”
1992 – Doctor of Philosophy (PhD), Boriskov Institute of Catalysis, Novosibirsk
Thesis: Study on the Nuclear Oxidation of Trimethylbenzenes and Trimethylphenols
1983 – Master of Science, Department of Chemistry, Novosibirsk State University, Novosibirsk
Thesis: Study on Fast Redox Reactions of Heteropolyanions

Career/Employment

1996 – Present Head of Research Group for Heterogeneous Catalysts for Liquid-Phase Selective Oxidations, Boriskov Institute of Catalysis, Novosibirsk.
2014 – present Head of Laboratory for Synthesis and Study of New Materials for Resource-Saving Catalytic and Adsorption Processes, Novosibirsk State University
2011 Visiting Scientist for 2 months with Prof. F. Cavani group, Alma Mater Studiorum, University of Bologna, Italy
2004–2005 Visiting Scientist for 3 months with Prof. M. Rossi group, University of Milan, Italy
2004, 1998 Visiting Scientist for 2 months with Prof. C. L. Hill group, Emory University, Atlanta, GA
1995 – 1996 Senior Researcher, Boriskov Institute of Catalysis, Novosibirsk.
1992 – 1995 Researcher, Laboratory for Studying Mechanisms of Catalytic Reactions, Head: Prof. K.I. Zamaraev, Boriskov Institute of Catalysis, Novosibirsk
1986 – 1991 Junior Researcher, Boriskov Institute of Catalysis, Novosibirsk
1983 – 1986 Intern, Laboratory for Fine Organic Synthesis, Head: Prof. I.V. Kozhevnikov, Boriskov Institute of Catalysis, Novosibirsk

Fields of Specialization

main field Catalysis
other fields Coordination Chemistry, Nanomaterials

Honours and awards:

- Fellowship Erasmus Mundus Master of Science – Advanced Spectroscopy in Chemistry, 2011
- Fellowship from the Cariplo Foundation-Centro Volta, 2004
- Award from Civilian Research and Development Foundation, 2002.
- Award from International Soros Foundation for publications, 1993.
- Diploma with honours, Novosibirsk State University, Novosibirsk, Russia, 1985.

- First Prize, National Student Conference, Novosibirsk, Russia, 1983.
- Medal of the Academy of Sciences of the USSR for excellence in research, 1983.

2006 – present	Member of the International Advisory Board for the International Symposium on Activation of Dioxygen and Homogeneous Catalytic Oxidations (ADHOC)
2008	Member of Expert Panel of the World Congress on Oxidation Catalysis
2017 – present	Member of the International Advisory Board for the International Symposium of Frontiers in Metal Oxide Cluster Science (FMOCS)

Research fields:

Liquid-phase selective oxidation of organic compounds; catalysis of environmentally benign processes; green chemistry; single-site heterogeneous catalysts; supported catalysts; polyoxometalates; metal-organic frameworks, design of catalytic centres; structure/activity/selectivity relationships in catalysis; mechanisms of catalytic oxidations.

Publications: more than 110 articles in international journals

1 book (Liquid Phase Oxidation via Heterogeneous Catalysis: Organic Synthesis and Industrial Applications, eds. M.G. Clerici and O.A. Kholdeeva, John Wiley & Sons, Inc., Hoboken, New Jersey, 2013, pp. 526)

4 book chapters

10 patents

Talks at international conferences: >40 total, >10 **key-note and invited lectures** (*EuropaCat-VIII, ISSO-2007, ADHOC-2008, 6WCOC, Pacifichem 2005 and 2010, EuropaCat-XII, CAFC11, FMOCS 2017, 8WCOC...*).

PhD Theses under direction of O.A. Kholdeeva: 5

Main accomplishments: proof for chain radical mechanism of alkene epoxidation in dioxygen/aldehyde catalytic systems; synthesis and characterization of the first titanium hydroperoxo complex; mechanistic studies on single-site catalysts using transition-metal-monosubstituted polyoxometalates as molecular models; development of hydrothermally stable mesoporous titanium- and niobium-silicate catalysts; structure/activity/selectivity relationships in oxidation of alkylphenols and epoxidation of alkenes with H₂O₂; environmentally benign methods for the production of trimethyl-*p*-benzoquinone (Vitamin E precursor), menadione (Vitamin K₃) and other fine chemicals; new effective selective oxidation catalysts based on metal-organic frameworks.