

PERSONAL INFORMATION

Name: Vladimir P. Shirobokov
Born: November 11, 1998, Izhevsk, Russia
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**EDUCATION**

2020 – 2022, M.S. in Quantum and hybrid materials (in English) - ITMO University (average ranking – 4.78 / 5.0)

Thesis: Quantization of cavity with gyrotropic media
Supervisor: Prof. Ivan Iorsh, Ph.D. in physics

2016 – 2020, B.S. in Nanoengineering (in Russian) - Kazan National Research Technological University (KNRTU) (average ranking – 5.0 / 5.0)

Thesis: A new class of electrocatalysts based on coordination polymers pectate sodium with nickel
Supervisor: Dr. Kholin Kirill, Ph.D. in chemistry

RESEARCH EXPERIENCE

2022 – *Present* Internship student in Institute Jean Lamour/University of Lorraine, Nancy, France. Project: Simulation photothermal processes for antiviral treatment.

2020 – *Present* Assistant Researcher in ITMO University, Saint-Petersburg. Project: Ultra-strong coupling regime in gyrotropic cavity.

2018 – 2020 Laboratory assistant in Kazan National Research Technological University, Kazan. Project: Electrocatalysts based on coordination polymers.

PUBLICATIONS

D. Sedov, V. Shirobokov, I. Tokatly, I. Iorsh Cavity induced chiral edge currents and spontaneous magnetization in two-dimensional electron systems
doi.org/10.48550/arXiv.2204.13759

Kholin K.V., Shirobokov V.P., Nizameev I.R, Minzanova S.T., Kadirov, M.K. Catalytic properties of nanostructured nickel-containing pectin biopolymers on a glassy carbon surface // Journal of Physics: Conference Series. – IOP Publishing, 2020. – T. 1695. – №. 1. – C. 012050. doi:10.1088/1742-6596/1695/1/012050

CONFERENCE

7th International School and Conference on Optoelectronics, Photonics, Engineering and Nanostructures SPb OPEN 2020»/ Catalytic properties of nanostructured nickel-containing pectin biopolymers on a glassy carbon surface, K.V. Kholin, V.P. Shirobokov, I.R. Nizameev and et./ St. Petersburg, Russia, April 26-30, 2020

XII Scientific session/ A new class of electrocatalysts based on coordination polymers pectate sodium with nickel/ V.P. Shirobokov, K.V. Kholin, I.R. Nizameev/ Kazan, Russia, February 4-10, 2020

XVI International Conference "Spectroscopy of coordination compounds"/ Prospective catalysts for carbon dioxide reduction, K.V. Kholin, V.P. Shirobokov, S.T. Minzanova, M.K. Kadirov/ Tuapse, Russia, September 16-19, 2019.

ACHIEVEMENTS

2022 Masters diploma graduated with high honour

2022 Erasmus' internship in Institute Jean Lamour/University of Lorraine (Nancy, France)

2020 One of the best BA students in Kazan National Research Technological University

2020 Bachelor diploma graduated with high honour

2019 Scholarship of President

2018 Participant in grants Russian Foundation for Basic Research and President of Russian Federation

EXPERTIZE

- Fluency in Python and numerical methods
- Fluency in chemistry (inorganic, analytical, physical), quantum physics (basic quantum mechanics, quantum optics, spintronics), and material science
- Complete courses "*Introduction in machine learning*" and "*Methods of machine learning*" at ITMO University (Prof. Igor Lobanov)
- Complete course "*Fundamentals of Accelerated Computing with CUDA Python*" at ITMO University and NVIDIA Deep Learning Institute (Prof. Dmitry Gulevich)
- Complete courses "*Methods of quantum chemistry*" and "*Many-body quantum theory*" at ITMO University (Prof. Roman Polozkov)
- Skills in Wolfram Mathematica, DFT programs (Firefly, Quantum Espresso, Gaussian)
- Good knowledge in experimental methods and skills in X-ray diffraction, atomic-emission spectroscopy

INTERESTS

Drawing with markers\pens, museum/art gallery, sport (football, beach volleyball, running), reading books, travelling

LANGUAGES

Russian (native)

English (intermediate, B2)

Français (basic, A1)