

EMPLOYMENT HISTORY

Research Intern at Skoltech, CEST

Nov. 2020 – current

- Computational materials scientist - modeling of me-ion batteries materials at atomistic scale
- Data analyst - *operando* synchrotron X-ray diffraction/adsorption spectroscopy (XRD/XAS) data processing and analysis including automate 2D images integration, background subtraction, fitting and visualization

Teaching Assistant, University of Michigan

Jul. 2021 – Jul. 2021

- Held seminars on bond valence calculations for ionic conductors investigation at the Telluride School on Electrochemical Energy Storage

Industrial contract with Evonik Industries AG (Germany), principal contractor

Jan. 2021 – Mar. 2021

- Found new prospective crystalline 3D ionic conductors by screening crystal structure databases. As a result, another contract was signed for the synthesis of selected compounds.

EXPERIENCE

Computational skills

- Programming: **python** (numpy, pandas, scipy, matplotlib, sklearn, torch), **MATLAB**, **#bash**
- Materials modeling: VASP, ab-init, LAMMPS, Gaussian
- HPC Slurm

Experimental skills

- Was a main experimentalist and data analyst at *operando* XRD/XAS experiments held at synchrotron facilities: ESRF (France), DESY(Germany), Elettra (Italy)

Languages Russian (native), English (B2)

Projects

- [BVLain](#): a python-based bond valence site energy calculator

EDUCATION

Skolkovo Institute of Science and Technology (Skoltech). Moscow, Russia

Oct. 2021 – current

- **PhD** in Materials Science and Engineering, Center for Energy Science and Technology

Skolkovo Institute of Science and Technology (Skoltech). Moscow, Russia

Sep. 2019 – Jun. 2021

- **MSc** in Materials Science, Center for Energy Science and Technology (GPA 3.94/4.00)

National Research Nuclear University (MEPhI). Moscow, Russia

Sep. 2015 – Jun. 2019

- **B.S.** in Materials Science, Institute of Nuclear Physics and Engineering (GPA 3.56/4.00)

PUBLICATIONS

- Unexpected Chain of Redox Events in Co-Based [Prussian Blue Analogues](#), Morozova et al., Chem. Mater., 2023
- [A Li-rich strategy](#) towards advanced Mn-doped triphylite cathodes for Li-ion batteries, Nazarov et al., Energy Adv., 2023
- NH_4^+ -based frameworks as a platform for designing electrodes and solid electrolytes for Na-ion batteries: [A screening approach](#)., Dembitskiy et al., Solid State Ionics, 2022