

# Elizaveta Vaneeva

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## Education

2019 - PRESENT

**D. Mendeleev University of Chemical Technology of Russia,  
Moscow, Russia**

Bachelor's degree at Chemistry (03.04.01.), Institute of Chemistry and Problems of Sustainable Development, Skoltech Department "Materials for Energy Production, Conversion and Storage"

## Laboratory experience

2019 - 2020

**Perovskite Solar Cells Laboratory, Skolkovo Institute of Science and Technology**

Liquid metal melts for low-cost perovskite solar cells

2021 - PRESENT

**Materials Discovery Laboratory, Skolkovo Institute of Science and Technology  
(Head - Artem R. Oganov)**

"Investigation of stable molecules in C-N-H-O system"

Theoretical study of molecules, containing C, N, H, O elements with the highest stability, using evolutionary algorithm USPEX for variable-composition cluster optimization and ab-initio calculations. Performing a search for "magic" molecules and comparing achieved results with various experimental data.

## Skills

- Languages: Russian (native), English (C1), Romanian (A2)
- Computer skills: Python, Matlab, Linux
- Packages and programs: USPEX, VASP, Gaussian, MOPAC, Orca, FHI-Aims

## Publications

- Poster for Lomonosov-2020
- Poster for IFSOE-2020 and HOPE-PV 2020 «Liquid metal melt electrodes for low-cost perovskite solar cells»
- E. E. Vaneeva, S. V. Lepeshkin, A. R. Oganov, "New Look at Chemical Diversity of C-N-H Molecules", конференция «Образование и наука для устойчивого развития» 2022, ISBN 978-5-7237-1967-5 (Ч. 2), ISBN 978-5-7237-1965-1

## Awards

- The prize for the best poster at "HOPE-PV-2020" from "Energies Journal" (2020)
- Second place (diploma) at conference "Education and science for sustainable development", Section "Materials for Energy Production, Conversion and Storage", D.Mendeleev University of Chemical Technology for talk "New Look at Chemical Diversity of C-N-H Molecules" (2022)