

# CURRICULUM VITAE

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**Date and Place of birth:** November 18, 1994, Russian Federation

**Nationality:** Russia

**Language:** Russian (mother tongue), English (Upper-intermediate), French (Elementary)

## Education

Date	Degree	University
2016	Bachelor of Applied Mathematics and Physics	Moscow Institute of Physics and Technology, Moscow, Russia
2018	Master of Applied Mathematics and Physics	Moscow Institute of Physics and Technology, Moscow, Russia

**Specialization:** quantum chemistry, ab-initio calculations, carbon materials, 2D inorganic films

## Career & Employment

Date	Position	Institution and place of work
2015-present	Trainee researcher	Technological Institute for Superhard and Novel Carbon Materials, Troitsk, Moscow, Russia
2017-present	Engineer	National University of Science and Technology MISiS, Moscow, Russia

## Conferences, Workshops and Schools

Date	Event	Place
12.01.17-14.01.17	18th International Workshop on Computational Physics and Materials Science: Total Energy and Force Methods	International Centre for Theoretical Physics, Trieste, Italy
16.01.17-27.01.17	Advanced Workshop on High-Performance & High-Throughput Materials Simulations using Quantum ESPRESSO	International Centre for Theoretical Physics, Trieste, Italy
07.08.17-11.08.17	2 <sup>nd</sup> Russian Conference «Graphene: molecule and 2D crystal»	Novosibirsk, Russia
21.08.17-25.08.17	European Summer School in Physics	Strasbourg University, Strasbourg, France
29.05.18-01.06.18	11th International Conference “Carbon: Fundamental Problem, Material Science, Technology”	Technological Institute for Superhard and Novel Carbon Materials, Troitsk, Moscow, Russia

20.08.18- 24.08.18	10th International Conference on Material Technologies and Modeling, MMT-2018	Ariel University, Ariel, Israel
17.09.18- 19.09.18	15th Workshop "Crystal Structure Prediction with USPEX code"	Skoltech, Moscow, Russia

### Computing Skills

**Software packages:** ab initio calculations (VASP, Siesta); molecular modeling (LAMMPS)

**Languages:** Python, MatLab, C/C++

**Operating systems:** MS Windows, Linux

**Software Applications:** Scientific computing/visualization tools (MatLab, Chemcraft, Vesta, Diamond, etc.); vector and raster graphics editors (CorelDraw, Adobe Photoshop); typesetting systems (MS Office)

### Publications

1. **Larionov K.**, Kvashnin D., Sorokin P. 2D FeO: a new member in 2D metal oxide family // The Journal of Physical Chemistry C. 2018. Vol. 122, № 30, P. 17389–17394. [10.1021/acs.jpcc.8b06054](https://doi.org/10.1021/acs.jpcc.8b06054)
2. **Larionov K.**, Popov Z., Vysotin M., Kvashnin D., Sorokin P. Study of the New Two-Dimensional Compound CoC // JETP Letters. 2018. Vol. 108, № 1. P. 13–17. [10.1134/S0370274X18130039](https://doi.org/10.1134/S0370274X18130039)
3. Doronin M., **Larionov K.**, Troschiev S., Terentiev S. Dependence of Synthetic Diamond Wear Rate on Lattice Orientation at Traditional Mechanical Treatment // Journal of Surface Investigation: X-ray, Synchrotron and Neutron Techniques. 2018. Vol. 11, № 6. P. 1192-1195. [10.1134/S1027451017060052](https://doi.org/10.1134/S1027451017060052)
4. Annenkov M., Blank V., Kulnitskiy B., **Larionov K.**, Ovsyannikov D., Perezhogin I., Popov M., Sorokin P. Boron carbide nanoparticles for high-hardness ceramics: Crystal lattice defects after treatment in a planetary ball mill // Journal of the European Ceramic Society. 2017. Vol. 37, № 4. P. 1349–1353. [10.1016/j.jeurceramsoc.2016.12.001](https://doi.org/10.1016/j.jeurceramsoc.2016.12.001)
5. Konopatsky A., Firestein K., Leybo D., Popov Z., **Larionov K.**, Steinman A., Kovalskii A., Matveev A., Manakhov A., Sorokin P., Golberg D., Shtansky D. BN Nanoparticle/Ag Hybrids with Enhanced Catalytic Activity: Theory and Experiments // Catalysis Science & Technology. 2018. Vol. 8, № 6, P. 1652–1662. [10.1039/c7cy02207g](https://doi.org/10.1039/c7cy02207g)
6. Fernando J., Shortell M., Firestein K., Zhang Chao, **Larionov K.**, Popov Z., Sorokin P., Bourgeois L., Waclawik E., Golberg D. Photocatalysis with Pt-Au-ZnO and Au-ZnO Hybrids: Effect of Charge Accumulation and Discharge Properties of Metal Nanoparticles. // Langmuir. 2018. Vol. 34, № 25, P. 7334–7345. [10.1021/acs.langmuir.8b00401](https://doi.org/10.1021/acs.langmuir.8b00401)