

CURRICULUM VITAE (November 20, 2025)
ALEXANDER G. KVASHNIN

Personal data

Born on 05.08.1989 in Krasnoyarsk, Russia

Married, two children

Languages: Russian (native), English (fluent), Chinese (elementary)

ORCID: <http://orcid.org/0000-0002-0718-6691>

Scopus Author ID: 6603118309

ResearcherID: A-1825-2014

[Google Scholar page](#)

[Group page](#)

EDUCATION

- 2021 Doctor Habilitatus in condensed matter physics (Doctor of Physical & Mathematical Sciences, Russian highest degree), National University of Science and Technology “MISIS” ([thesis](#))
- 2016 Ph.D. in condensed matter physics (Candidate of Physical & Mathematical Sciences) Moscow Institute of Physics and Technology ([thesis](#))
- 2012 M.Sc. in Applied Mathematics and Physics, Moscow Institute of Physics and Technology
- 2010 B.Sc. in physics, Siberian Federal University

EMPLOYMENT

- 2023-present Full Professor, Skolkovo Institute of Science and Technology, Moscow
- 2021-2023 Assistant Professor, Skolkovo Institute of Science and Technology, Moscow
- 2021-present Professor, National University of Science and Technology MISiS, Moscow
- 2017-2021 Senior Researcher, Skolkovo Institute of Science and Technology, Moscow
- 2015-present Research Scientist, Emanuel Institute of Biochemical Physics RAS, Moscow
- 2016-2017 Research Scientist, Skolkovo Institute of Science and Technology, Moscow
- 2015-2016 Junior Researcher, Skolkovo Institute of Science and Technology, Moscow
- 2013-2015 Junior Researcher, Technological Institute for Superhard and Novel Carbon Materials (TISNCM), Troitsk, Moscow
- 2012-2020 Administrator of HPC cluster, Technological Institute for Superhard and Novel Carbon Materials (TISNCM), Troitsk, Moscow
- 2010-2012 Research Intern, Technological Institute for Superhard and Novel Carbon Materials (TISNCM), Troitsk, Moscow

Ph.D. Advisor: Pavel B. Sorokin (NUST MISIS)

Postdoctoral Advisor: Artem R. Oganov (Skoltech)

CITATION SUMMARY: h-index: 31 (Scopus), 35 (Google Scholar);
Citations: 6200 (Scopus), 8200 (Google Scholar)

VISITING APPOINTMENTS:

Visiting International Scientist, Rice University, Houston TX, USA, 2011, 2013;

Visiting PhD student, University of Namur, Namur, Belgium, 2015;

Visiting Professor, Northwestern Polytechnical University, Xi'an, China, 2018.

HONORS AND AWARDS

| | |
|-----------|---|
| 2024 | Sber Science Prize in the nomination “AI in Science. Physical World” |
| 2023 | Ranked in the top 2% of the world's most cited researchers by single-year impact, as compiled by Elsevier. |
| 2023 | Excellence Recognition Award for results in research, teaching and student success, economic impact and service to Skoltech and wider community |
| 2022 | Excellence Recognition Award for results in research, teaching, impact, and service to Skoltech and wider community |
| 2020 | Prize of the Moscow Government for Young Scientists in Science and Innovations |
| 2020 | Award of Academia Europaea for young scientists in physics |
| 2013-2015 | Scholarship of President of Russia for young scientists and PhD students |
| 2010-2012 | Scholarship of the “Dynasty” foundation |
| 2010-2011 | L.V. Kirensky’s scholarship for achievements in the field of Mathematical and Physical Sciences |
| 2010 | Scholarship for achievements in the field of Mathematical and Physical Sciences |
| 2009 | President Scholarship for students |
| 2009 | Award of the head of the Krasnoyarsk city for young talent for excellence in scientific and educational activities |

PROFESSIONAL ASSOCIATIONS

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| 2025-present | Member of Expert Council of the Krasnoyarsk Science Foundation |
| 2024-present | Expert of the Scientific and Technological Council of the Russian Science Foundation |
| 2023-present | Member of Dissertation Council of RUDN University ИДЦ 2022.013 |
| 2022-present | Member of Research and Innovation Committee of Skoltech |
| 2022-present | Member of Advisory Panel in Energy of Skoltech |
| 2022-present | Member of Dissertation Council of ITMO University 12.22.00 |
| 2022-present | External expert of the Council for the priority area of scientific and technological development of the Russian Federation "Transition to digital, intelligent manufacturing technologies, robotic systems, new materials and design methods, creation of systems for big data processing, machine learning and artificial intelligence" |
| 2018-present | Expert of the Russian Science Foundation |

ASSIGNED REVIEWER

The Innovation, Ceramics International, Advanced Materials, Nano Letters, The Journal of Chemical Physics, Computational Materials Science, 2D Materials, Journal of Applied Physics, The Journal of Physical Chemistry Letters, Carbon, Physica E, Solid State Communications, Materials, Nanomaterials, Membranes, ACS Omega, Advanced Science

GRANTS AND PROJECTS

| | |
|-----------|--|
| 2024–2026 | Russian Science Foundation project № 24-23-00125, “ Computational design for catalysts based on higher molybdenum and chromium borides for energy transition problems ” (leader) |
| 2023 | Megagrant of the Ministry of Science and Higher Education of the Russian Federation № 075-15-2021-579, “ Computational synthesis of chemical compounds ” (leader) |
| 2020–2025 | Program of Introducing Talents of Discipline to Universities of the Ministry of Education of China “Integrated Computational Materials Engineering in Metals and Alloys project” (key participant) |
| 2021–2023 | Grant of the President of the Russian Federation for young scientists MK-3120.2021.1.2 (key participant) |
| 2021–2022 | Russian Foundation of Basic Research project № 20-53-05009, “Search and investigation for novel two-dimensional materials for biochemical sensing applications” (key participant) |
| 2020–2023 | Russian Science Foundation № 20-12-00097, “ Quantum mechanical modeling and experimental studies of new superhard and high-strength states of carbon ” (participant) |
| 2020–2021 | Grant of Ministry of Science and Education of Russian Federation for support of leading scientific schools of the Russian Federation № HIII-2711.2020.2 (participant) |
| 2019–2020 | Russian Foundation of Basic Research project № 19-03-00100, “Study of superconductivity with electron-phonon coupling mechanism in hydrides, borides and carbides of transition metals stabilized by pressure” (leader) |
| 2018–2020 | UMNIK program, Light elements: superconducting ternary systems with light elements (leader) |
| 2019–2022 | Russian Science Foundation № 19-72-30043, “ Computational materials design laboratory for new materials ” (key participant) |
| 2017–2019 | Industry project with LLC "Gazpromneft' NTC", “Design new superhard materials for the cutters of the drill bit, and their subsequent synthesis and testing” (key participant) |
| 2017–2019 | Russian Science Foundation project № 17-73-20038, “ Computational design for new materials with optimal hardness and fracture toughness ” (leader) |
| 2016–2018 | Russian Science Foundation project № 16-13-10459, “ New methods for search for materials with optimal properties ” (participant) |
| 2014–2016 | Russian Science Foundation project № 14-12-01217, “ Simulations of structure and properties of new multilayered nanomaterials based on TMDs and BN-graphene layered structures ” (participant) |
| 2012–2015 | Research project of Federal Target program № 14.B37.21.1645. Investigation of fabrication ways and properties of single-crystal diamond film with nanometer thickness (participant) |
| 2012–2015 | Russian Foundation of Basic Research program № 12-02-31261. Investigation of features of electronic, elastic, and mechanical properties of materials based on diamond clusters with nanometer size (participant) |

TEACHING

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| 2024- present | Lecturer of the course MA060589 “Thermodynamics of Materials” for MSc and PhD students in Materials Science program in Skoltech, 6 ECTS |
| 2023- present | Lecturer of the course MA060573 “Computational Methods in Atomistic Simulations” for MSc and PhD students in Materials Science program in Skoltech, 6 ECTS |
| 2023- present | Co-lecturer of the course DA060341 “Advanced Materials Modeling” for MSc and PhD students in Materials Science program in Skoltech, 6 ECTS |
| 2023- present | Lecturer of the course MA030565 “Introduction to Computational Mechanics in Energy Transition” for MSc students in Advanced Computer Mechanics program in Skoltech, 6 ECTS |
| 2022- present | Co-lecturer of the course MA060008 “Computational Chemistry and Materials Modeling” for MSc and PhD students in Materials Science program in Skoltech, 6 ECTS |
| 2020- present | Lecturer of the course “Introduction to the Quantum Theory of Condensed Matter” for 3rd year BSc students in Materials Science program in NUST MISiS, 3 ECTS |
| Nov.-Dec. 2022 | Lecturer of the course “Programming of chemical tasks” for MSc students in ITMO University, 3 ECTS |
| Mar. 2021 | Lecturer of the on-line course “Simulation of materials properties” in Physics Department of Northeastern University, China |
| 2017-2019 | Co-lecturer of the course MA060075 “Structure and Properties of Materials” for PhD students in Materials Science program in Skoltech, 6 ECTS |

STUDENT SUPERVISIONS

| Name | Affiliation | Years |
|--------------------------------------|---------------|-------------|
| Faridun Jalolov | MSc Skoltech | 2020 – 2022 |
| | PhD, Skoltech | 2022 – |
| Aleksandra D. Radina | MSc MISiS | 2021 – 2023 |
| | PhD, Skoltech | 2023 – |
| Olga Pushkova | BSc MISiS | 2022 – 2024 |
| | MSc Skoltech | 2024 – |
| Daniil Fedorov | BSc MISiS | 2022 – 2024 |
| | MSc MISiS | 2024 – |
| Artem Butyaev | BSc MISiS | 2024 – 2025 |
| | MSc MISiS | 2025 – |
| Mikhail Lukanov | PhD, Skoltech | 2024 – |
| Khasan Akhmadiev | PhD, Skoltech | 2024 – |
| Anton Konkin | BSc MISiS | 2025 – |
| Ivan Nikitin | BSc MISiS | 2025 – |
| Grigory Bychkov | MSc Skoltech | 2025 – |
| Daniil Alekseev | MSc Skoltech | 2025 – |
| Daria Fedotova | MSc Skoltech | 2025 – |

FORMER STUDENTS

[D.V. Semenok](#) (PhD, 2018-2022, now HPSTAR, Beijing, China), [N.A. Matsokin](#) (MSc, 2021-2023, now KIT), D.A. Bystrov (BSc, MISiS, 2021-2023), T.S. Pigulevskaya (BSc, MISiS, 2021-2023), I.T. Yanaev (BSc, MISiS, 2021-2023), Labib Abdelrahman Mohamad Bakr (MSc, MISiS, 2022-2023), T. Kozlan (BSc, MISiS, 2022-2024), E.E. Fatkulina (BSc, MISiS, 2022-2024), M. Trunov (BSc, MISiS, 2024-2025).

BOOKS

1. A.R. Oganov, G. Saleh, **A.G. Kvashnin** (Editors). Computational Materials Discovery. Royal Society of Chemistry. ISBN: [978-1-78262-961-0](#) (2018)

PATENTS

1. Yu.Z. Vasilieva, A.A. Svinukhova, A.A. Kuznetsova, F.V. Vlasov, A.Ya. Pak, **A.G. Kvashnin**, R.D. Gerasimov, P.V. Povalyaev, Z.S. Bolatova. 2025. Method of producing powder of single-phase high-entropy diboride of composition Ti-Zr-Nb-Hf-Ta-B with hexagonal lattice, [RU 2841156](#). Filed June 21, 2024 and issued June 3 2025
2. A.Ya. Pak, A.A. Gumovskaya, P.V. Povalyaev, **A.G. Kvashnin**. 2023. Powder production method based on single-phase high-entropy Ti-Zr-Nb-Hf-Ta-C carbide with cubic lattice, [RU 2796134](#). Filed June 21, 2022 and issued May 17 2023
3. **A.G. Kvashnin**, I.S. Lyubutin, I.A. Troyan, D.V. Semenov, A.R. Oganov. 2021. High-temperature superconducting hydride and method for production thereof, [RU 2757450](#). Filed September 09, 2020 and issued October 15, 2021.
4. V.V. Brazhkin, V.I. Bugakov, I.P. Zibrov, V.P. Filonenko, A.R. Oganov, **A.G. Kvashnin**, A.Ya. Zakirov. 2020, Materials based on chromium tetraboride and methods for production thereof, [RU 2753339](#). Filed July 25, 2020 and issued August 13, 2021
5. V.V. Brazhkin, V.I. Bugakov, I.P. Zibrov, V.P. Filonenko, A.R. Oganov, **A.G. Kvashnin**, A.Ya. Zakirov, A.A. Osipov. 2019. Method of producing superhard material and superhard material based on tungsten pentaboride. [RU 2698827](#). filed August 01, 2018 and issued August 30, 2019.

PAPERS IN REFEREED JOURNALS AND PREPRINTS

2026

110

- 109 D.S. Nikitin, I.I. Shanenkov, A. Nassyrbayev, A.A. Sivkov, V.S. Baidyshev, Yu.A. Kvashnina, N.A. Matsokin, A.Ya. Pak, **A.G. Kvashnin**, High-entropy Ti-Zr-Nb-Hf-Ta carbide and carbonitride coatings fabricated by high-speed arc discharge plasma jet, Int. J. Refr. Met. Hard Mater., 135, 107537 (2026) (DOI: [10.1016/j.jirmhm.2025.107537](#)), Q1
- 108 R. Arabov, N. Rybin, V. Demin, M. Polovinkin, **A. Kvashnin**, L. Chernozatonskii, A. Shapeev, Tuning Thermal Conductivity and Electron-Phonon Interactions in Carbon and Boron Nitride Moir'e Diamanes via Twist Angle Manipulation, Appl. Surf. Sci., 717, 164801 (2026) (DOI: [10.1016/j.apsusc.2025.164801](#)), Q1

2025

- 107 I.V. Chepkasov, **A.G. Kvashnin**, Multilayers Alkali Metal Structures a Way to High Capacity and Fast Charging Carbon-Based Metal-Ion Battery. A Review, Small, e08433 (2025) (DOI: [10.1002/sml.202508433](#)), Q1, SJR10%
- 106 I.V. Chepkasov, V.S. Baidyshev, **A.G. Kvashnin**, Core-dictated tuning of the performance of amorphous and crystalline TM@Pt and HEA@Pt core-shell nanoparticles catalysts, Mat. Today. Energy, 54, 102130 (2025) (DOI: [10.1016/j.mtener.2025.102130](#)), Q1, SJR10%
- 105 Yu.A. Bayan, E.R. Beskopylny, E.U. Gerasimov, E.E. Aydaykov, K.K. Volik, I.V. Pankov, I.V. Chepkasov, M.M. Lukanov, **A.G. Kvashnin**, A.A. Alekseenko, Boosting the Performance of Pt/C Catalysts via Nitrogen-Doped Carbon Support: Insights from Structural and Electrochemical Characterization, Small, e10144 (2025) (DOI: [10.1002/sml.202510144](#)), Q1, SJR10%
- 104 Yu. Vassilyeva, Yu. Neklya, M. Lukanov, **A. Kvashnin**, A. Pak, Vacuum-free arc synthesis and characterization of crystalline molybdenum borides as instrumental

- material, Therm. Sci. Eng. Progress, 67, 104134 (2025) (DOI: [10.1016/j.tsep.2025.104134](https://doi.org/10.1016/j.tsep.2025.104134)), Q1, SJR10%
- 103 C. Tantardini, **A.G. Kvashnin**, M. Giantomassi, M. Iliaš, B.I. Yakobson, R.J. Hemley, X. Gonze, Charge density waves and structural phase transition in the high- T_c superconducting LaH₁₀ quantum crystal, Phys. Rev. B, 112, 115154 (2025) (DOI: [10.1103/c7w9-7tgy](https://doi.org/10.1103/c7w9-7tgy)), Q1
- 102 A.R. Vildanova, A.E. Goldt, S.V. Porokhin, **A.G. Kvashnin**, V.S. Baidyshev, I.V. Chepkasov, F.S. Fedorov, K.A. Litvintseva, A.V. Lalov, V.A. Dmitrieva, M.M. Tepliakova, A.G. Nasibulin, Encapsulated Nickel Nanowires Inside Plasma-treated Single-Walled Carbon Nanotubes for Urea Oxidation, Small, e07040, (2025) (DOI: [10.1002/sml.202507040](https://doi.org/10.1002/sml.202507040)), Q1, SJR10%
- 101 D.Yu. Karpenkov, R.A. Makarin, C. Tantardini, **A.G. Kvashnin**, A.Yu. Karpenkov, E.V. Argunov, T.A. Sviridova, T.B. Shapaeva, M.V. Zheleznyi, Designing high-efficiency cryogenic regenerators: The role of microstructure and geometry in magnetocaloric cooling, J. All. Comp., 1041, 183808 (2025) (DOI: [10.1016/j.jallcom.2025.183808](https://doi.org/10.1016/j.jallcom.2025.183808)), Q1, SJR10%
- 100 I.V. Chepkasov, A.D. Radina, V.S. Baidyshev, M. Polovinkin, N. Rybin, A. Shapeev, A.A. Krikorov, A.R. Oganov, Z. Dashevsky, D.G. Kvashnin, **A.G. Kvashnin**, Tuning of Mechanical Properties of doped PbTe-based Thermoelectric Material Driven by Intrinsic Defects, J. Mat. Chem A., 13, 31170-31181 (2025), (DOI: [10.1039/D5TA00823A](https://doi.org/10.1039/D5TA00823A)), Q1, SJR10%
- 99 C. Tantardini, M. Azizi, T. Altalhi, **A.G. Kvashnin**, A. Filippetti, C. Gatti, B.I. Yakobson, X. Gonze, Sb^{IV}, an Unusual Player in 2D Spintronic Devices, ACS Nano, 19, 29, 26562–26571 (2025) (DOI: [10.1021/acsnano.5c05027](https://doi.org/10.1021/acsnano.5c05027)), Q1, NI, SJR10%
- 98 N.A. Matsokin, R.A. Eremin, A.A. Kuznetsova, I.S. Humonen, A.V. Krautsou, V.D. Lazarev, Y.Z. Vassilyeva, A.Ya. Pak, S.A. Budenny, **A.G. Kvashnin**, A.A. Osipov, Discovery of chemically modified higher tungsten boride by means of hybrid GNN/DFT approach, npj Comp. Mat., 11, 163 (2025) (DOI: [10.1038/s41524-025-01628-z](https://doi.org/10.1038/s41524-025-01628-z)), Q1, SJR10%
- 97 I.V. Chepkasov, V.S. Baidyshev, **A.G. Kvashnin**, Polyaromatic hydrocarbons as prospective anode materials for metal ion battery, J. En. Storage, 125, 116831 (2025) (DOI: [10.1016/j.est.2025.116831](https://doi.org/10.1016/j.est.2025.116831)), Q1, SJR10%
- 96 I.V. Chepkasov, V.S. Baidyshev, A.V. Iosimovska, I.S. Zamulin, **A.G. Kvashnin**, Adsorption properties of crystalline and amorphous PdIr nanoparticles. A systematic first-principles study, J. Catalysis, 447, 116102 (2025) (DOI: [10.1016/j.jcat.2025.116102](https://doi.org/10.1016/j.jcat.2025.116102)), Q1
- 95 D.S. Nikitin, I.I. Shanenkov, A.R. Nassyrbayev, A.A. Sivkov, V.S. Baidyshev, Yu.A. Kvashnina, N.A. Matsokin, A.Ya. Pak, **A.G. Kvashnin**, Synthesis of high-entropy Ti-Zr-Nb-Hf-Ta carbides and carbonitrides in high-speed arc discharge plasma jet, J. All. Comp., 1010, 177178 (2025) (DOI: [10.1016/j.jallcom.2024.177178](https://doi.org/10.1016/j.jallcom.2024.177178)), Q1, SJR10%
- 2024**
- 94 F.N. Jalolov and **A.G. Kvashnin**, Physically intuitive anisotropic model of hardness, Phys. Rev. Mat., 8, 123601 (2024) (DOI: [10.1103/PhysRevMaterials.8.123601](https://doi.org/10.1103/PhysRevMaterials.8.123601)), Q1
- 93 V.S. Baidyshev, C. Tantardini, **A.G. Kvashnin**, Melting simulations of high-entropy carbonitrides by deep learning potentials, Sci. Rep., 14, 28678 (2024) (DOI: [10.1038/s41598-024-78377-4](https://doi.org/10.1038/s41598-024-78377-4)), Q1, SJR10%
- 92 C. Tantardini, H.A. Zakaryan, Z.-K. Han, T. Altalhi, S.V. Levchenko, **A.G. Kvashnin**, B.I. Yakobson, Material hardness descriptor derived by symbolic regression, J. Comp. Sci., 82, 102402 (2024) (DOI: [10.1016/j.jocs.2024.102402](https://doi.org/10.1016/j.jocs.2024.102402)), Q2
- 91 R.S. Stepanov, A.D. Radina, C. Tantardini, **A.G. Kvashnin**, A.V. Kolobov, Chemical bonding within AIIIBVI materials under uniaxial compression, Phys. Chem. Chem. Phys., 26, 20984-20992 (2024) (DOI: [10.1039/D4CP00937A](https://doi.org/10.1039/D4CP00937A)), Q2

- 90 A.D. Radina, V.S. Baidyshev, I.V. Chepkasov, N.A. Matsokin, T. Altalhi, B.I. Yakobson, **A.G. Kvashnin**, Theoretical study of adsorption properties and CO oxidation reaction on surfaces of higher tungsten boride, *Sci. Rep.*, 14, 12788 (2024) (DOI: [10.1038/s41598-024-63676-7](https://doi.org/10.1038/s41598-024-63676-7)), Q1, SJR10%
 - 89 F. Bochkanov, D. Karpenkov, V. Fomin, A. Tukmakova, **A. Kvashnin**, A. Novotelnova, O. Kutsemako, N. Kulesh, V. Kurichenko, I. Bajenova, A. Khvan, Electrical current-assisted reactive crucible melting technique: Case study of the Fe-Sn system, *Materialia*, 36, 102152 (2024) (DOI [10.1016/j.mtla.2024.102152](https://doi.org/10.1016/j.mtla.2024.102152)), Q2.
 - 88 A.Yu. Kurenkova, A.D. Radina, V.S. Baidyshev, P.V. Povalyaev, E.E. Aidakov, E.Yu. Gerasimov, D.D. Mishchenko, A.V. Zhurenok, A.Ya. Pak, E.A. Kozlova, **A.G. Kvashnin**, Photocatalytic H₂ generation and CO₂ reduction by WB_{5-x} cocatalyst of TiO₂ catalyst, *Appl. Surf. Sci.*, 661, 160095 (2024) (DOI: [10.1016/j.apsusc.2024.160095](https://doi.org/10.1016/j.apsusc.2024.160095)), Q1
 - 87 F.N. Jalolov, E.V. Podryabinkin, A.R. Oganov, A.V. Shapeev, **A.G. Kvashnin**, Mechanical Properties of Single and Polycrystalline Solids from Machine Learning, *Adv. Theory and Sim.*, 2301171 (2024) (DOI: [10.1002/adts.202301171](https://doi.org/10.1002/adts.202301171)), Q1
 - 86 I.V. Chepkasov, A.D. Radina, **A.G. Kvashnin**, Structure-driven tuning of catalytic properties of core-shell nanostructures, *Nanoscale*, 16, 5870-5892 (2024) (DOI: [10.1039/D3NR06194A](https://doi.org/10.1039/D3NR06194A)), Q1
 - 85 I.V. Chepkasov, **A.G. Kvashnin**, A.D. Radina, N.A. Matsokin, F.N. Jalolov, D.G. Kvashnin, A.R. Oganov, Z. Dashevsky, Origin of brittle behavior of doped PbTe-based thermoelectric materials, *Appl. Phys. Lett.*, 124, 022104 (2024) (DOI: [10.1063/5.0185002](https://doi.org/10.1063/5.0185002)), Q1, NI.
 - 84 R.A. Khmelnitsky, V.P. Martovitsky, J.V. Bondareva, A.I. Kolbatova, N. Titova, G.N. Goltsman, F.S. Fedorov, A.V. Egorov, N.A. Matsokin, **A.G. Kvashnin**, D.G. Kvashnin, S.A. Evlashin, Synthesis and Characterization of Niobium Carbide Thin Films on Diamond Surface for Superconductive Application, *J. Alloys and Compounds*, 173266 (2024) (DOI: [10.1016/j.jallcom.2023.173266](https://doi.org/10.1016/j.jallcom.2023.173266)), Q1, SJR10%
 - 83 C. Tantardini, M. Iliaš, M. Giantomassi, **A.G. Kvashnin**, V. Pershina, X. Gonze, Generating and grading 34 optimised norm-conserving Vanderbilt pseudopotentials for actinides and super-heavy elements in the PseudoDojo, *Comp. Phys. Comm.*, 295, 109002 (2024) (DOI: [10.1016/j.cpc.2023.109002](https://doi.org/10.1016/j.cpc.2023.109002)), Q1, SJR10%
- 2023**
- 82 I.V. Chepkasov, I.S. Zamulin, V.S. Baidyshev, **A.G. Kvashnin**, Tuning the surface properties of AuPd nanoparticles for adsorption of O and CO, *Phys. Chem. Chem. Phys.*, 25, 33031-33037 (2023) (DOI: [10.1039/D3CP03213B](https://doi.org/10.1039/D3CP03213B)), Q1.
 - 81 I.V. Chepkasov, V.S. Baidyshev, **A.G. Kvashnin**, Structure-driven tuning of O and CO adsorption on AuCu nanoparticles. A DFT Study, *Phys. Rev. B.*, 108, 205414 (2023) (DOI: [10.1103/PhysRevB.108.205414](https://doi.org/10.1103/PhysRevB.108.205414)), Q1.
 - 80 I.A. Troyan, D.V. Semenok, A.G. Ivanova, A.V. Sadakov, D. Zhou, **A.G. Kvashnin**, I.A. Kruglov, O.A. Sobolevskiy, M.V. Lyubutina, T. Helm, S.W. Tozer, M. Bykov, A.F. Goncharov, V.M. Pudalov, I.S. Lyubutin, Non-Fermi-Liquid Behavior of Superconducting SnH₄, *Adv. Sci.*, 2303622 (2023) (DOI: [10.1002/advs.202303622](https://doi.org/10.1002/advs.202303622)), Q1.
 - 79 F. Khorobrykh, S. Klimin, B. Kulnitskiy, F.N. Jalolov, **A.G. Kvashnin**, A. Eliseev, A. Kirichenko, V. Prenas, V. Denisov, N. Mel'nik, P. Sorokin, M. Popov, Cluster structure of ultrahard fullerite revealed by Raman spectroscopy, *Carbon*, 118314 (2023) (DOI: [10.1016/j.carbon.2023.118314](https://doi.org/10.1016/j.carbon.2023.118314)), Q1.
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