

Оппонент 1.

ФИО: Можаров Алексей Михайлович

Учёная степень: к.ф.-м.н.

Место работы: Академический Университет

Должность: Старший научный сотрудник, лаборатория возобновляемых источников энергии

Телефон: +79219809929

mail: [mozharov@spbau.ru](mailto:mozharov@spbau.ru)

Публикации:

1. Mastalieva V, Neplokh V, Aybush A, Stovpiaga E, Eurov D, Vinnichenko M, Karaulov D, Kirillenko D, **Mozharov A**, Sharov V, Kolchanov D, Machnev A, Golubev V, Smirnov A, Ginzburg P, Makarov S, Kurdyukov D, Mukhin I. **Second harmonic generation and broad-band photoluminescence in mesoporous Si/SiO<sub>2</sub> nanoparticles**. Nanophotonics. 2024;13(18): 3299-3309. <https://doi.org/10.1515/nanoph-2024-0218>
2. I. V. Nadoyan, N. A. Solomonov, K. N. Novikova, A. V. Pavlov, V. A. Sharov, **A. M. Mozharov**, D. V. Permyakov, V. A. Shkoldin, D. A. Kislov, A. S. Shalin, A. O. Golubok, M. I. Petrov, I. S. Mukhin. **Parametric Optothermal Modulation of Carbon Nanooscillator Decorated with Mie Resonant Silicon Particle**. Adv. Optical Mater. 2024, 12, 2400228. <https://doi.org/10.1002/adom.202400228>
3. Andrey K. Kaveev, Vladimir V. Fedorov, Alexander V. Pavlov, Dmitry V. Miniv, Ratmir V. Ustimenko, Aleksandr Goltaev, Liliia. N. Dvoretckaia, **Alexey M. Mozharov**, Sergey V. Fedina, Demid A. Kirilenko, Maxim Ya. Vinnichenko, Karim J. Mynbaev, and Ivan S. Mukhin, **Growth, Crystal Structure, and Photoluminescent Properties of Dilute Nitride InAsN Nanowires on Silicon for Infrared Optoelectronics**, ACS Applied Nano Materials 2024 7 (3), 3458-3467, DOI: 10.1021/acsanm.3c06295
4. Baeva M, Gets D, Polushkin A, Vorobyov A, Goltaev A, Neplokh V, **Mozharov A**, Krasnikov D, Nasibulin AG, Mukhin I, Makarov S. **ITO-free silicon-integrated perovskite electrochemical cell for light-emission and light-detection** (vol 7, 220154C, 2024). OPTO-ELECTRONIC ADVANCES. 2024 Jan 1;7(3).

5. Sun, Y., Larin, **A.**, **Mozharov**, A. et al. **All-optical generation of static electric field in a single metal-semiconductor nanoantenna**. Light Sci Appl 12, 237 (2023). <https://doi.org/10.1038/s41377-023-01262-8>
6. M Ya Vinnichenko, RV Ustimenko, DA Karaulov, DA Firsov, VV Fedorov **AM**, **Mozharov**, IS Mukhin, HA Sarkisyan, DB Hayrapetyan, EM Kazaryan, **Mid-infrared detectors for space electronics based on InAs-core/InP-shell nanowires**, Communications of the Byurakan Astrophysical Observatory, 70, 344-347, 2023
7. Denis V. Lebedev, Nikita A. Solomonov, Liliia N. Dvoretckaia, Vitaliy A. Shkoldin, Dmitry V. Permyakov, Alexander V. Arkhipov, **Alexey M. Mozharov**, Dmitry V. Pavlov, Aleksandr A. Kuchmizhak, and Ivan S. Mukhin, **Femtosecond Laser-Printed Gold Nanoantennas for Electrically Driven and Bias-Tuned Nanoscale Light Sources Operating in Visible and Infrared Spectral Ranges**, The Journal of Physical Chemistry Letters 2023 14 (22), 5134-5140, DOI: 10.1021/acs.jpcclett.3c00650
8. L. N. Dvoretckaia, **A. M. Mozharov**, M. S. Gavrilov and V. V. Fedorov, **"Microspherical lithography for selective epitaxy,"** 2022 International Conference Laser Optics (ICLO), Saint Petersburg, Russian Federation, 2022, pp. 1-1, doi: 10.1109/ICLO54117.2022.9840191
9. Larin, A.O., Ageev, E.I., Dvoretckaia, L.N. et al. **Formation of Luminescent Structures in Thin a-Si:H–Er Films Irradiated by Femtosecond Laser Pulses.** Jetp Lett. 114, 681–686 (2021). <https://doi.org/10.1134/S0021364021230090>
10. A S Goltaev, **A M Mozharov**, V V Yaroshenko, D A Zuev and I S Mukhin, **Investigation of a single-photon hybrid emitting system based on NV-centers in nanodiamonds integrated with GaP NWs**, 2021 J. Phys.: Conf. Ser. 2086 012142, DOI 10.1088/1742-6596/2086/1/012142