

**Optics & Spectroscopy – Special section on
Promising materials of optoelectronics, laser physics, and photonics**

The paper collection is devoted to the topical problems of novel materials for optoelectronics, laser physics, and photonics, as well as their use in the innovative component base, opto-electronics and laser systems designed for different applications. The scope of the collection includes (but is not limited by) the following areas:

- Modeling and experimental studies of the equilibrium and non-equilibrium electrodynamic response of novel materials;
- Innovative materials and fabrication technologies of the free-space and fiber optics in different spectral ranges (including THz);
- 1D and 2D materials, thin films, phase change materials, photoconductors;
- Promising active media of solid-state and fiber lasers;
- Dielectric and metal (plasmonic) nanoparticles and related materials for the optical and biomedical applications; metamaterials and photonic crystals;
- Laser processing of materials, surface and volumetric modification of their structure and properties;
- Optical materials resistant to aggressive chemical environments, intense optical fields, and mechanical loads;
- Prospective materials for the multimodal tool of medical diagnosis, therapy, and surgery.

Participants of the Saratov Fall Meeting 2024 (SFM'24, URL: <https://sfmconference.org/>), School-Conference “Prokhorov Weeks» 2024 (URL: <https://pw-conf.gpi.ru/>), and everyone interested are invited to submit their paper.

Both research and review papers are considered, while the topic of a review paper should be approved *a priori* via E-mail by the Guest Editors.

Papers should be sent to the Guest Editors directly. Please, do not submit it to the journal staff.

The manuscript should be prepared following the guidelines from the journal's website (URL: <https://journals.ioffe.ru/journals/rules/5>) and then submitted to the Guest Editors together with a list of suggested (up to three persons, with their full name, scientific degrees, affiliations, and E-mail indicated).

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Submission deadline – December 2, 2024