Conference:
Advanced Materials for Optics & Biophotonics IV

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(Russia)

The main goal of the Conference is to review and discuss the recent developments of novel and advanced materials of optics and biophotonics and related applications. The main attention will be paid to novel materials for optics, biophotonics, and regenerative medicine, their optical performance, biocompatibility, and resistance to aggressive environments, such as blood and human body fluids. The conference scope includes materials for medical instruments and biological research, waveguiding and radiation delivery, medical implantation, materials for artificial biotissues and 3D bioprinting, etc. The related problems of their manufacturing and investigation will be discussed.

Topics:

- Novel technologies for fabrication of advanced materials of optics and biophotonics
- Sapphire shaped crystals as a prospective material for biology and medicine
- Modern instruments of medical diagnosis, therapy and surgery relying on the advanced materials
- Problems of biotissue transplantation
- Biofriendly materials with advanced optical performance
- 3D bioprinting and related techniques
- Novel materials for regenerative medicine
- Application of cell matrixes (scaffolds)
- Advanced colloidal systems for applications in biology and medicine