03.04.02 Physics

Advanced Semiconductor Lasers and Technologies

Department: “Semiconductor Quantum Electronics” (specialized industrial department of Lebedev Institute Physics of the Russian Academy of Sciences)

Program objective

training of masters for research activities related to laser technologies, semiconductor quantum electronics, interaction of radiation with matter

Key research areas

- laser and plasma physics
- laser thermonuclear fusion
- physics of semiconductors
- optics and photonics
- interaction of radiation with matter
- physics of condensed matter
- physics of the nucleus and elementary particles
- physics of fast processes
- automated control systems and control, etc.

Practical training and employment opportunities

- national research centers
- Rosatom and Rostech corporation enterprises
- institutes of the Russian Academy of Sciences
- foreign partners: Optoelectronics Research Center, Tampere University of Technology (Finland), Principia Lightworks Inc. (USA), EPSRC National Center for III-V Technologies (Universities of Sheffield, Cambridge, Glasgow, Nottingham), Stepanov Institute of Physics of the National Academy of Sciences of Belarus, Samsung LED (Korea)