

I. SCIENTIFIC COMPONENT
Plan of scientific activity of the PhD program
1.3.6. Optics
(103-01/02-01-136-phms)

Scientific (research) activities under this educational program are aimed at preparing a theses for the scientific degree of Candidate of Sciences for defense and includes conducting scientific research, preparing publications that present the main scientific results of the theses, in peer-reviewed scientific publications, equivalent to scientific publications indexed in the international databases Web of Science and Scopus and international databases determined in accordance with the recommendation of the Higher Attestation Commission under the Ministry of Science and Higher Education of the Russian Federation, as well as in scientific publications indexed in the database Russian Science Citation Index (RSCI), and (or) applications for patents for inventions, utility models, industrial designs, breeding achievements, certificates of state registration of programs for electronic computers, databases, topologies of integrated circuits.

	Stages of Mastering the Scientific Component of the Postgraduate Program and Final Attestation	Year of study (course)	Results
1. Sample research plan			
1.1.	Justification of the research topic, taking into account the requirements: <i>Passports of scientific specialty, Regulations on the award of academic degrees (Decree of the Government of the Russian Federation of September 24, 2013 No. 842)</i>	1	Order of the organization on the approval of the dissertation topic in the framework of postgraduate programs and the main directions of the organization's research activities
1.2.	Definition of tasks, stages, research methods and forms of organization of its implementation.	1	Individual plan of scientific activity of a postgraduate student
1.3.	Realization of research - building theoretical models - numerical simulation - pilot study - sample fabrication	1, 2, 3, 4	- results of experiments, graphs, analysis, - theoretical model formulas - graphs of numerical simulation - images from microscopes, scientific cameras - applying for grants - participation in grants - internships
1.4.	Approbation of the research results - participation in international conferences - participation in Russian conferences	1, 2, 3, 4	- international conference on optics, oral and poster presentations on the research topic

	- presentations at seminars		- Russian conferences on optics, oral and poster presentations on the research topic
1.5.	Certification by stages of scientific research	1, 2, 3, 4	Postgraduate student's report at a meeting of the Department of Nanophotonics, Faculty of Physics, Moscow State University. Feedback from the supervisor on the stages of research activities carried out by the postgraduate student
2. Plan for the preparation of the thesis and publications			
2.1.	Substantiation of the dissertation structure	1, 2	Presentation of a postgraduate student with a report at a collective discussion, initial review of the report by the supervisor
2.2.	Formation of sections and chapters of the dissertation	1, 2, 3	Presentation of a postgraduate student with a report at a collective discussion, initial review of the report by the supervisor
2.3.	Preparation of a dissertation in accordance with the requirements of the Regulations on the award of academic degrees (Decree of the Government of the Russian Federation of September 24, 2013 No. 842)	3, 4	Dissertation, initial review of the dissertation by the supervisor
2.4.	Preparation of publications (other types of patents in accordance with paragraph 5 of the FGT, taking into account the specifics of the specialty)	2, 3, 4	Publications and / or certificates of acceptance for publication (applications for patents)
3. Final certification			
3.1.	Presentation of the dissertation to the department, to the scientific department for the appointment of reviewers	4	Feedback from the supervisor
3.2.	Dissertation review by internal and/or external reviewers	4	At least 2 reviews
3.3.	Evaluation of the dissertation for its compliance with the criteria established in accordance with the Federal Law "On Science and State Technical Policy" at the department, in the scientific division, in the interdepartmental association, etc. (the number of discussions is determined by the organization)	4	Commission meeting protocol

3.4.	Preparing a conclusion based on the results of the dissertation evaluation	4	Conclusion on the compliance of the dissertation with the criteria established in accordance with the Federal Law "On Science and State Scientific and Technical Policy"
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