

Technologies of Materials

National Research ITMO University

Degree or qualification is awarded: **Ph.D in Technologies of Materials**

Language of study: **Russian**

Mode of study: **full-time**

Duration: **4 years**

Availability of free education: **yes**

Price: **299 000 RUB per year**

Programme curator: **Maria V. Skvortsova**

Tel.: **+7 (812) 232-80-95**

E-mail: aspirantura@itmo.ru

Upon completion of their Ph.D. program, graduates will be able to work in the following fields: areas of science, engineering, technology and pedagogy, covering a set of problems, trends in technology of materials, including the synthesis of new materials, design and operation of process equipment for pilot and series production of materials and products, development of methods and tools for quality control of materials and technical diagnostics of technological processes production, to define a set of structural and physical properties of materials (mechanical, thermal, optical, electrical and other), consistent with the objectives of their practical use. The graduates will have an understanding of a chosen branch of scientific knowledge, including design methods of advanced materials using multiscale mathematical modeling and related software; methods and means of nano-and microstructural analysis using microscopes with different resolution and generators charged corpuscles; technological equipment for forming products, bulk and surface treatment of materials based on different physical principles (deposition, sintering, hardening, rolling, punching, winding, the calculation, pultrusion, infusion, etc.); technological modes of processing of materials to ensure the necessary quality of the products.

Specializations within this programme

Metal science and heat treatment of metals and alloys