

## **22.06.01 Materials Engineering**

### **Powder Metallurgy and Composite Materials**

#### **Program objective**

training of specialists condensed matter physics for conducting high-level research, developing new structural and functional materials and physical production models.

#### **Research and professional activities**

- modeling processes and phenomena that occur in solid state under the influence of radiation;
- creating structural and functional materials with a given set of properties, including heat-resistance, radiation-and-corrosion-resistance, taking into account stabilization principles of structural-phase states;
- obtaining skills in theoretical and experimental research of materials structure, composition and properties;
- studying structural-phase state and physical and mechanical properties of structural and functional materials after processing, including radiation exposure;
- modifying structural materials using ion-beam and plasma technologies to increase their corrosion, erosion and tribological properties.