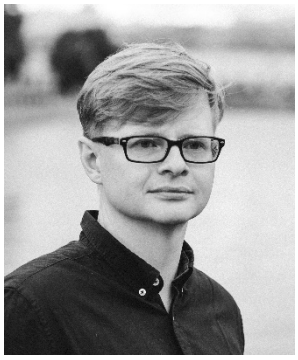
EVGENY N. BULANOV

University	Lobachevsky University
Level of English proficiency	Upper-intermediate
Educational program and field of the educational program for which the applicant will be accepted	1.4 Chemical Sciences 1.4.1 Inorganic Chemistry (Chemical Sciences)
List of research projects of the potential supervisor (participation/leadership)	2010 - Research grant of the federal program “UMNIK, topic “Development of new bioceramic materials on the basis of apatites” (supervisor); - research grant of the regional program “UMNIK-NN”, topic “Development of new bioceramic materials based on chemically modified hydroxyapatite and composites on its basis” (supervisor); 2011 - Research grant of the federal program “UMNIK”, topic “Development of new adsorbents of heavy metals and radioactive isotopes on the basis of biocompatible apatite ceramics” (supervisor); - Grant of Nizhny Novgorod region in the sphere of science, engineering and technology, topic “Creation of new bioactive material on the basis of nanosized hydroxyapatite for medical purposes” (executor); 2013 - RFBR grant № 13-03-00152, topic “Thermodynamic studies of compounds for immobilization of radioactive waste” (executor); 2014 - RFBR grant “My First Grant” № 14-03-31234 mol_a, topic “Synthesis, thermodynamic and structural study of new compounds with apatite structure and solid solutions based on them” (supervisor); 2016 - RFBR grant № 16-33-60172 mol_a_dk, topic “Preparation and study of porous composite materials based on hydroxyapatite and copolymers of chitosan with lactide/mixtures of chitosan and polylactide to achieve the necessary complex of properties to ensure tissue regeneration in the treatment of bone defects” (supervisor). - RFBR grant No. 16-03-00288 A, topic “Structural and physicochemical studies of vitamins and hormones” (co-principal investigator). 2018 - Grant of Nizhny Novgorod region in the field of science, engineering and technology, topic “Study of the influence of temperature and pressure on the crystal structure and performance characteristics of functional materials for various purposes” (executor); - Grant №11.1114.2017/CH for the project “Physics and mechanics of advanced lightweight high-strength structural ceramics for special applications in mechanical engineering and rocket and space technology” within the framework of the state assignment to subordinate universities for 2017-2019 by the

	Ministry of Education and Science of the Russian Federation (executor). 2019 - RFBR grant № 19-44-230040 p_a, topic “Investigation of the role of organophosphate matrices in abiogenic reproducible peptide synthesis” (co-executor, “Krasnodar Scientific Center for Zootechnics and Veterinary Medicine”) 2020 - RSF Grant № 18-73-10177, theme “Plasma-chemical nanopowders of tungsten carbide and compositions based on them for promising high-strength nanostructured ceramics and ultra-low cobalt hard alloys” (co-executor); - Project of the Ministry of Education and Science of the Russian Federation № 075-15-2020-808 from 05.10.2020 “Reliable and logically transparent artificial intelligence: technology, verification and application in socially significant and infectious diseases” (co-executor); 2022 - RSF grant № 22-13-00053, topic “Development of scientific foundations of the technology of chemoresistive materials for electronic nose based on complex nanostructured oxide matrices” (main executor). 2023 - grant under the UNN Strategic Academic Leadership Program “Priority 2030”, topic “Biomimetic materials for dentistry” (principal investigator).
List of the topics offered for the prospective scientific research	1. Phosphate biomaterials 2. Inorganic pigments 3. Study of isomorphism in binary and ternary systems of compounds with apatite structure
 Research supervisor: Evgeny N. Bulanov Doctor of Science, docent (Lobachevsky University)	**Inorganic and Nuclear Chemistry**
	Supervisor’s research interests Preparation, crystallochemical characterization and study of physicochemical properties of mineral-like compounds and solid solutions as the basis of biomaterials for various applications
	Research highlights Research is carried out in cooperation with Privolzhsky Research Medical University.
	Supervisor’s specific requirements - knowledge of inorganic chemistry - knowledge of crystallochemistry - laboratory experience (solid-phase synthesis, solution synthesis) - knowledge of the basics of X-ray phase and X-ray structure analysis, vibrational spectroscopy, statistical processing of experimental results - skills of work with bibliographic databases WoS, Scopus, eLibrary
	Total number of publications in journals in 2021-2025 indexed by Web of Science: 12 Scopus: 17 RSCI: 2 **5 most significant publications**:

	1. **Bulanov E.N.,** Stasenko K.S., Egorikhina M.N., Zaslavskaya M.I., Aleynik D.Ya. On the role of vanadium in the structure and properties of calcium-bismuth-sodium oxyapatite // Solid State Sciences. 2024. V. 151. Article number 107527. 2. Vasileva A.A., Kazakovtsev S.A., Guseinov D.V., Ezhevskii A.A., Egorikhina M.N., Aleynik D.Ya., **Bulanov E.N.** Synthesis, some physicochemical and biomedical properties of colored apatite-structured compounds with Mn^{5+} and Cr^{5+} // ChemistrySelect. 2024. V. 9, issue 11, article number e202400524. P. 1-17. 3. **Bulanov E.N.,** Golitsyna O.N., Ostrovskaya Yu.V., Egorikhina M.N., Zaslavskaya M.I., Aleynik D.Ya. Synthesis, crystal structure and biological activity of bismuth-sodium-oxoapatite // Ceramics International. 2024. V. 50. Issue 7. Part A. P. 11150-11157. 4. **Bulanov E.N.,** Vasileva A.A., Kazakovtsev S.A., Golitsyna O.N., Syrov E.V., Knyazev A.V. Search for new apatite-like pigments: from synthesis to color measurements // Ceramics International. 2023. V. 49. P. 34097-34104. **Bulanov E.N.,** Golitsyna O.N., Shvareva A.G., Korokin V.Z., Knyazev A.V. Synthesis and thermal expansion of $SrREE_4(SiO_4)_3O$ apatites // Bulletin of Materials Science. 2023. V. 46. article number 229.
	Results of intellectual activity 1. Bulanov E.N., Knyazev A.V., Korokin V.J., Blokhina A.G. Method of obtaining nanohydroxyapatite // Patent of the Russian Federation № 2614722. Application filing date 17.12.2015. Published 29.03.2017. 2. Bulanov E.N., Knyazev A.V. Method of obtaining biocompatible bismuth-apatite // Patent of the Russian Federation No. RU 2776293 C1 Application No. 2021136551/04(076935) dated 10.12.2021. Published 18.07.2022 3. Bulanov E.N., Golitsyna O.N. Method of obtaining bismuth-sodium-calcium oxoapatite // Application fo Patent № 2023133813 from 19.12.2023. Decision on publication from 09.10.2024