University	National University of Science and Technology MISIS
Level of English proficiency	B1
Educational program and field of the educational program for which the applicant will be accepted	Chemistry and Materials Science
List of research projects of the potential supervisor (participation/leadership)	
List of the topics offered for the prospective scientific research	Diffusion processes in multicomponent and multiphase systems. Processes at the interface and adjacent region in metallic systems Description of the diffusion process on the base of the coupling of thermodynamic modelling and analytical solution of diffusion problems.
 Research supervisor: Alexey O. Rodin, Candidate of Science, MISIS	Natural and exact sciences 1.04. Chemical Sciences, Physical Chemistry
	Supervisor's research interests *Modelling of the process of structure formation/evolution with the use of diffusion/thermodynamic models coupling including effects on the grain boundaries and interfaces, deformation and phase formation. Application to the properties prediction, including mechanical properties*
	Research highlights *(при наличии)* *Digitalization of the process for properties prediction*
	Supervisor's specific requirements: *Раздел заполняется при наличии требований, предъявляемых к аспиранту (обязательный бэкграунд кандидата/дисциплины, которые он обязательно должен был освоить/ методы, которыми он должен владеть/ уметь пользоваться каким-то определённым ПО и др.)* • *metallic material science* • *Thermodynamic and kinetics*
	Supervisor's main publications 1. *Rodin, A., Khairullin, A. Diffusion and segregation behavior of Fe and Co in Cu (2019) Materials Letters, 239, pp. 102-104.* 2. *Dub, V.A., Rodin, A., Bokstein, B., Belikov, S., Kozlov, P., Schepkin, I., Dub, V.S. Modeling of the carbide growth kinetics in the low alloyed steels (2018) Materials Letters, 215, pp. 134-136.* 3. *Rodin, A., Goreslavets, N. Formation of intermediate phases and supersaturated solid solution in Al-Cu system during diffusion* *(2018) Defect and Diffusion Forum, 383, pp. 31-35.* 4. *Itckovich, A., Mendelev, M., Rodin, A., Bokstein, B. Effect of atomic complexes formation in grain boundaries on grain boundary diffusion (2018) Defect and Diffusion Forum, 383, pp. 103-111.* 5. *Rodin, A., Dolgopolov, N., Pomadchik, A. Concentration dependence of grain boundary diffusion (2016) Defect and Diffusion Forum, 369, pp. 1-5.*

	Results of intellectual activity *(при наличии)* *Указать наиболее значимые результаты интеллектуальной деятельности. Например, патенты, изобретения, научные труды и т.д.*