

Portfolio of scientific supervisors of the participants of the postgraduate track of the International Olympiad of the Global Universities Association

University	Siberian Federal University
Level of English	Upper-intermediate
Field of study and degree program of the doctoral student to be admitted	1.4.12 Petroleum chemistry
Research projects of the potential research supervisor	"Determination of the initial data for calculating the capacity of the r-1, r-2, r-3 reactors of the LSI-200 isomerization unit", customer JSC NK REFINERY, 2021-2022. "Development of a methodology for detecting organochlorine compounds in oil under field conditions", customer PJSC NK Rosneft, 2021. Synthesis and research of a depressant-dispersant additive for improving the low-temperature properties of medium distillate motor fuels, customer of KGAU Krasnoyarsk Regional Fund for Support of Scientific and Scientific-Technical Activities, 2023-2024 Laboratory modeling of the process of thermal dissolution of coke fines in liquid gas oil products of various origins, in order to obtain pitches and a component of the raw material of a delayed coking unit, customer Gazpromneft-Industrial Innovations LLC, 2025 Computer-aided design of model and algorithmic support for the development of digital counterparts of coking processes for the production of products with specified properties, customer Russian Science Foundation, 2025
Suggested topics for research	A list of 7–10 research topics Improvement of deep oil refining technologies Improving the performance properties of motor fuels Oilfield chemistry Chemical methods for increasing oil recovery Synthesis of carbonaceous materials Biofuel production processes Catalysts of oil refining processes <i>The focus of research may be defined or redefined during the interview to better match the participant's research interests</i>
	Chemistry and Materials Sciences
	Potential supervisor's research interests Development of new technologies for chemical methods of increasing oil recovery, industrial catalysis in the processes of obtaining motor fuels, implementation of technological solutions to improve technologies for deep oil refining
	Distinctive characteristics of research (if any) The research equipment of the laboratory of Oil and Petroleum Products, the laboratory of Research and Testing of catalysts, the implementation of the scientific results obtained at the enterprises of the oil and gas

 Research supervisor: Fedor A. Buryukin, Candidate of Science/PhD Chemical Sciences (Physical chemistry, Inorganic chemistry) Siberian State Technological University (Krasnoyarsk)	complex, internships at the enterprises of the oil and gas complex are used. Key publications of the potential research supervisor <i>Total number of indexed publications in journals over the past 5 years:</i> Web of Science – 2 Scopus – 5 RSCI – 2 <i>COMPOSITIONS BASED ON BITUMEN MODIFIED BY PRODUCTS OF CHEMICAL PROCESSING OF POLYETHYLENE WASTE : scientific publication [journal article] Vaganov R. A., Kositsyna S. S., Buryukin F. A., Savin V. A. 2024, Bulletin of Perm National Research Polytechnic University. Chemical technology and biotechnology Production of Carbon Binders from Petroleum and Coal Derivatives : научное издание [статья из журнала] Safin V. A., Kuznetsov P. N., Kositsyna S. S., Buryukin F. A., Butuzova L. F. 2021, COKE AND CHEMISTRY</i> <i>THE EFFECT OF LOW TEMPERATURES ON THE EFFECTIVENESS OF DEMULSIFIERS FOR THE DESTRUCTION OF WATER-OIL EMULSIONS [journal article] Zhizhova N. I., Safin V. A., Buryukin F. A., Kositsyna S. S. 2021, Natural and Technical Sciences Combating complications: water-oil emulsions Investigation of the composition and causes of the formation of persistent water-oil emulsions of the intermediate layer at oil treatment plants : scientific publication [journal article] Buryukin Fedor Anatolyevich, Kositsyna Anna Sergeevna, Kovalchuk Anna Andreevna, Shapovalov Pavel Leonidovich 2020, Business Journal Neftegaz.RU</i> Thermal Dissolution of Different-Ranked Coals in Tetralin and the Anthracene Fraction of Coking Tar : научное издание [статья из журнала] Kuznetsov P. N., Perminov N. V., Kuznetsova L. I., Buryukin F. A., Kolesnikova S. M., Kamenskii E. S., Pavlenko N. I 2020, SOLID FUEL CHEMISTRY
	Intellectual property outputs (if any) Utility Model Patent No. 181210, "Vibration support with spherical elastic damping elements", Russian Federation; Computer program, Certificate of state registration of the computer program No. 2018665114, "Program for modeling oil production conditions using electric centrifugal pumps", Russian Federation; Computer program, certificate of state registration of the computer program No. 2019610406, "Parametric identification and control of the technological process of oil production". Computer program, certificate of state registration of the computer program No. 2019663791, application No. 2019662400 dated 08.10.2018, "Modeling and forecasting program for a stand for studying the parameters of an autonomous packer system". RF Patent No. 2614445, application No. 2015157285 dated 12/30/2015 Frizorger V.K., Pingin V.V., Marakushina E.N., Krak M.I., Dovzhenko N.N., Buryukin F.A. "Method of obtaining a carbon pitch binder for the production of anode mass of carbon electrodes"