

Researcher profile (portfolio) form for potential research supervisors of postgraduate track participants in the Global Universities Association International Olympiad for graduate and postgraduate applicants 2023-2024.

University	Tomsk Polytechnic University
English language proficiency	B2
Applicant's postgraduate program	Physical chemistry
List of possible research topics	Inorganic dispersed materials Waste recycling
 <p>Research supervisor: Andrei V. Mostovshchikov, Doctor of Science (Tomsk Polytechnic University)</p>	Supervisor's research interests (detailed description of research interests):
	Nanomaterials
	Functional composite materials
	Supervisor's specific requirements:
	<ul style="list-style-type: none"> • Knowledge of physical and chemical methods of analysis • Possession of basic methods of inorganic synthesis • Knowledge of solid state physics
Supervisor's main publications (specify a total number of publications in journals indexed by Web of Science, Scopus, RSCI for the last 5 years, list up to 5 most significant publications with the publication details):	<ul style="list-style-type: none"> • Mostovshchikov, A.V., Goldenberg, B.G., Nazarenko, O.B. Effect of synchrotron radiation on thermochemical properties of aluminum micro- and nanopowders // Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2022, 285,115961 • Mostovshchikov A., Gubarev F., Chumerin P., Arkhipov V., Kuznetsov V., Dubkova Y. Solid Energetic Material Based on Aluminum Micropowder Modified by Microwave Radiation // Crystals, 2022, 12(4), 446 • Li L., Gubarev F., Mostovshchikov A. Synchronized Two-Camera Laser Monitor for Studying Combusting Powder Systems // Symmetry, 2022, 14(4), 656.
	In 2018, RF patent No. 2637732 "Aluminum nanopowder activation method" was included in the list of "100 best inventions of Russia for 2017" (Rospatent order No. 35 dated March 1, 2018).