Research topics in the discipline of Chemical Sciences
in the academic year 2024/2025

Lp.	PhD Supervisor	ORCID	Contact	Research topics	Language of the doctoral dissertation
1	dr hab. Anna Adach, prof. UJK	0000-0001-9438-054X	Anna.Adach@ujk.edu.pl	Synthesis, structural and spectroscopic characterization of new coordination compounds of potential anti-cancer properties, isolated in redox reactions, using zerovalent metals as substrates.	Polish language
2	dr hab. Barbara Gawdzik, prof. UJK	0000-0002-4355-7381	Barbara.Gawdzik@ujk.edu.pl	1. Synthesis of organic ligands containing S, N and O donor atoms. 2. Synthesis, structural and spectroscopic characterization of new coordination compounds of catalytic properties. 3. Olefin oligomerization process catalyzed by coordination complexes of transition metals ions.	Polish language
	dr hab. Agnieszka Jabłońska-Wawrzycka	0000-0003-3935-0772	Agnieszka.Jablonska-Wawrzycka@ujk.edu.pl	Structure, physicochemical characterisation and biological activity of ruthenium complexes in the context of their potential utilization as antibiofilm agents	Polish language
4	dr hab. Paweł Rodziewicz, prof. UJK	0000-0003-4397-5054	pawel.rodziewicz@ujk.edu.pl	1. Theoretical studies of intermolecular interactions in water solution of chemical warfare agents from first principles calculations. 2. Theoretical studies of intermolecular interactions between the surface of carbon nanotubes or	English language

				fullerenes and organic compounds from first principles calculations.	
5	dr hab. Przemysław Rybiński, prof. UJK	0000-0002-4860-0553	scendo@ujk.edu.pl	Anticorrosive properties of metallic coatings obtained by the cold gas method	Polish language
6	dr hab. Mieczysław Scendo, prof. UJK	0000-0001-5131-0699	przemyslaw.rybinski@ujk.edu.pl	Polymeric composites and nanocomposites. Composite materials for special applications. Pro-ecological composite materials. Material tests in terms of their thermal stability, fire hazard, smoke emission, toxicometric indicators.	Polish language
7	prof. dr hab. Piotr Słomkiewicz	000-0002-2521-1838	piotr.slomkiewicz@ujk.edu.pl	1. Immobilization of toxic chemicals on mineral-carbonized adsorptive materials from the gas and liquid phases. 2. Determinationl psychoactive compounds on mineral-carbonized adsorption materials from the liquid phases.	Polish language
8	dr hab. Alicja Wzorek, prof. UJK	0000-0001-9041-7034	awzorek@ujk.edu.pl	1. Synthesis of the new nucleotide analogues containing difluorophosphate or phosphoramidate group (CF_2-ProTide analogues) and evaluation of their biological activities. 2. Evaluation of the methods for enantiomeric enrichment of the chiral compounds.	Polish language
9	dr hab. Walentyna Zubkowa, prof. UJK	0000-0002-7039-2535	walentyna.zubkowa@ujk.edu.pl	The influence of the method of biomass pre-treatment on the composition and structure of pyrolysis products.	Polish language