TOPICS OF DIPLOMA DISSERTATION FOR BACHELOR STUDY in the academic year 2017/2018

Field of study: Chemistry

No.	SUPERVISOR	TOPIC OF DIPLOMA DISSERTATION	COMMENTS
ZB-1a Research Group of Organometallic Chemistry and Functional Materials *Head: Dr. Sławomir Szafert, D.Sc.*			
1.	dr hab. Sławomir Szafert	Literature review on recent developments in the chemistry of cage-like silsesquioxanes.	supporting supervisor: dr Łukasz John
2.	dr hab. Jolanta Ejfler	Literature review on biomimetic nanoarchitectures as the drug delivery systems.	supporting supervisor: dr Łukasz John
3.	dr hab. Sławomir Szafert	Synthesis of 4-ethynyl substituted pyrazols – precursors of nCOF materials.	supporting supervisor: dr Nurbey Gulia
4.	dr hab. Jolanta Ejfler	Literature review on polymers with molecular mark in medical diagnostics.	
5.	dr hab. Jolanta Ejfler	Literature review on metallosurfactants in catalysis.	
6.	dr hab. Jolanta Ejfler	Applications of dendrimers.	
7.	dr hab. Sławomir Szafert	Application of mechanochemical coupling of 1-halogenoacetylenes with pyrroles in the synthesis of fluorescent dyes.	supporting supervisor: dr Bartłomiej Pigulski
ZB-5a Research Group of Organic Synthesis *Head: Dr. Marcin Stępień, D.Sc.*			
8.	dr hab. Marcin Stępień, prof UWr	Coupling reactions as a tool for the synthesis of strained aromatics	
9.	dr hab. Marcin Stępień, prof UWr	Chromophores and fluorophores containing extended heterocyclic systems	
10.	dr hab. Marcin Stępień, prof UWr	Synthesis of dendrimers via nucleophilic aromatic substitution	
ZB-6 Research Group of Chemistry of Porphyrins and Metalloporphyrins *Head: Prof. Cyryl Latos-Grażyński, D.Sc.*			
11.	prof. dr hab. Lechosław Latos-Grażyński	Synthesis of appropriately functionalized polycyclic aromatic hydrocarbons working as precursors of aceneporphyrinoids	supporting supervisor: dr Bartosz Szyszko
12.	dr hab. Miłosz Pawlicki	Synthesis of haloderivatives of arenes and heteroarenes and their utilisation in catalytical processes	

No.	SUPERVISOR	TOPIC OF DIPLOMA DISSERTATION	COMMENTS
ZB-9 Research Group of Structure and Molecular Interactions *Head: Prof. Maria Rospenk, D.Sc.*			
13.	dr Andrzej Burakowski	Application of sound speed measurements in monitoring of the fermentation process.	
ZB-10 Research Group of Electrochemistry *Head: Prof. Maria Grzeszczuk, D.Sc.*			
14.	prof. dr hab. Maria Grzeszczuk	Critical micelle concentration of surfactants in buffer solutions. Literature data and selected experiments	Ref. Physical Chemistry / Electrochemistry
ZB-11a Research Group of Luminescent Materials *Head: Prof. Eugeniusz Zych, D.Sc.*			
15.	dr Andrii Shyichuk	Defect role analysis in thermoluminescence materials by means of DFT calculations	Theoretical studies
ZB-12 Research Group of Metal Complex Catalysis *Head: Prof. Anna Trzeciak, D.Sc*			
16.	dr Adam Augustyniak/ prof. Anna Trzeciak	Development of Metal–Organic Frameworks for the C,N-arylation of imidazole	
17.	prof. Anna Trzeciak	Biological activity of ionic liquids	
18.	prof. Anna Trzeciak	Chiral ionic liquids – synthesis and properties	
19.	prof. Anna Trzeciak	Green chemistry an technology	
20.	dr W. Bury/prof. A. Trzeciak	Metal-Organic Frameworks as potential drug delivery systems	
21.	dr Wojciech Bury/ prof. Anna Trzeciak	Metal-Organic Frameworks as catalytic platforms	
ZB-18 Research Group of Structural Applications of Electron Paramagnetic Resonance Spectroscopy. Head: Prof. Adam Jezierski, D.Sc.			
22.	Dr hab. Maria Jerzykiewicz	Radicals in polluted natural organic matter	
23.	Dr hab. Maria Jerzykiewicz	Antioxidant properties of humic substances	
24.	Dr hab. Alina Bieńko	Multiferroics as a future materials (literature).	

No.	SUPERVISOR	TOPIC OF DIPLOMA DISSERTATION	COMMENTS
ZB-19 Research Group of Theoretical Modelling of Chemical Processes Head: Prof. Zdzisław Latajka, D.Sc.			
25.	Dr Andrzej Bil	Theoretical modelling of ^{13}C chemical shifts.	Literature survey.
26.	Dr. hab. Jerzy Moc	Machine learning	Based mostly on scientific literature
27.	Dr. hab. Jerzy Moc	Genetic algorithms for global optimization	Based mostly on scientific literature