

LIST OF PROPOSED PROJECT LABORATORY FOR ACADEMIC YEAR 2025/2026

Didactic laboratory of physical and theoretical chemistry

1. Application of 2D materials in photocatalysis – prof. UAM dr hab. Anna Lewandowska-Andrałojć
2. Applying different recrystallization methods for obtaining crystals – dr hab. Anna Olejniczak
3. Preparation and identification of multi-component crystals of active pharmaceutical ingredients (APIs) – dr Ewa Patyk-Kaźmierczak
4. Spectroscopic properties of the selected compounds based on quantum chemical calculations – NMR spectrum – prof. UAM dr hab. Iwona Gulaczyk
5. Spectroscopic properties of the selected compounds based on quantum chemical calculations – UV spectrum – prof. UAM dr hab. Iwona Gulaczyk

Didactic laboratory of inorganic chemistry

1. Liposomal Drug Delivery – dr Marta Fik-Jaskółka
2. Microstructural studies of complex compounds – dr Monika Skrobańska
3. Synthesis and characterization of specific silicon derivatives (silsesquioxanes) based on stoichiometric and/or catalytic processes – dr Katarzyna Mituła-Chmielowiec
4. Unraveling G-Quadruplex Stability – dr Marta Fik-Jaskółka

Didactic laboratory of general and analytical chemistry

1. Advanced Oxidation Processes for elimination of emerging antibiotic pollutants and organic dyes from water – prof. UAM dr hab. Łukasz Wolski
2. Chemistry in Action: Analytical Techniques for Lab and Field Work – prof. UAM dr hab. Iwona Kurzyca

Didactic laboratory of chemical technology and study of materials

1. Alginate microcapsules as a platform for delivery of naturally derived therapeutics – dr Agata Wawrzyńczak, prof. UAM dr hab. Agnieszka Feliczak-Guzik
2. Comparison of the release rate of a selected active ingredient from commercially available pharmaceutical formulations – prof. UAM dr hab. Agnieszka Feliczak-Guzik, dr Agata Wawrzyńczak
3. Detoxification, care, filtration, ecology... the many faces of activated carbon – prof. UAM dr hab. Piotr Nowicki
4. Development and characterization of semi-solid forms of analgesic and anti-inflammatory drugs – prof. UAM dr hab. Joanna Gościańska
5. Development of catalytic properties in mesoporous ordered silicas through surface functionalization – prof. UAM dr hab. Ewa Janiszewska, prof. UAM dr hab. Agnieszka Held, dr Jolanta Kowalska-Kuś
6. Iron-based catalysts for the selective oxidation of propane to propene – prof. UAM dr hab. Agnieszka Held, dr Jolanta Kowalska-Kuś, prof. UAM dr hab. Ewa Janiszewska
7. Isolation methods used to obtain fragrances and aromas from plant raw materials – prof. dr hab. Izabela Nowak, dr Agata Wawrzyńczak
8. Obtaining valuable chemical products using carbon catalysts – prof. dr hab. Mieczysław Kozłowski
9. Removal of contaminants from the liquid phase using carbon nanomaterials – prof. UAM dr hab. Joanna Gościańska
10. Study of the release profile of the active substance from different forms of oral pharmaceutical products – dr Agata Wawrzyńczak, prof. UAM dr hab. Agnieszka Feliczak-Guzik
11. Synthesis and characterization of ZSM-5 zeolites and their application as catalysts in the waste glycerol conversion to solketal – dr Jolanta Kowalska-Kuś, prof. UAM dr hab. Agnieszka Held, prof. UAM dr hab. Ewa Janiszewska
12. Synthesis and evaluation of diverse ointment formulations – prof. UAM dr hab. Agnieszka Feliczak-Guzik, dr Agata Wawrzyńczak
13. Synthesis of high-value chemicals from renewable sources using nanostructured silicas – prof. dr hab. Izabela Nowak, prof. UAM dr hab. Agnieszka Feliczak-Guzik
14. Synthesis, surface characterization and catalytic application of hybrid catalysts – prof. UAM dr hab. Katarzyna Stawicka, dr Joanna Wiśniewska

15. The synthesis of pharmaceutical compounds facilitated by the utilization of metal oxides as catalytic agents in chemical reactions – prof. UAM dr hab. Katarzyna Stawicka, dr Joanna Wiśniewska

Didactic laboratory of organic chemistry and biochemistry

1. Bioactive Compounds of Natural Origin – prof. UAM dr hab. Anna Przybył
2. Cascade synthesis of N-heterocyclic pharmacophores – dr Daniel Łowicki
3. Fluorinated Compounds in Practice: A Modern Synthetic Laboratory – prof. UAM dr hab. Justyna Walkowiak-Kulikowska
4. Synthesis of nitrogen substrates for the preparation of heterocyclic compounds. Databases in research work – dr Agnieszka Grajewska