

Research Group for Spectroscopic Examination of Intermolecular Interactions and Adsorption Processes

FTIR spectroscopy, Hydrogen bonding, Adsorption

The research of this group is focused on three areas:

- The first and basic research of this group is focused on spectroscopic, thermodynamic and theoretical investigation of the hydrogen bonding of N-substituted amides and biologically active compounds.
- Testing the adsorption-diffusion characteristics of activated carbon, mesoporous silicates and other sorbents in the presence of amides as a model of organic matter of lower molar mass.
- The third research area presents FTIR spectroscopic investigation of soils, the development of new rapid and non-destructive methods for soil analysis.

SELECTED EQUIPMENT

- FTIR/NIR Spectrometer Nexus 670, Thermo Nicolet,
- AutosorbiQ Surface Area Analyzer (Quantochrome Instruments, USA)
- UV/VIS Spectrometer (UV -1800 EU Instruments)
- Densitometer DE 40 Mettler Toledo, Japan

COLLABORATIONS

- Faculty of Technology and Metallurgy, University of Belgrade
- Institute Biosense, University of Novi Sad
- Faculty of Engineering, University Duisburg-Essen

SELECTED PROJECTS

Title: *The study of the synthesis, structure and activity of organic compounds of natural and synthetic origin*

Type: Basic research project

Duration: 2010-2019

Contact person:

Saša Drmanić, Faculty of Technology and Metallurgy, University of Belgrade

Title: *The influence of the water matrix and the physico-chemical properties of the relevant organic xenobiotics on ecotoxicity and behavior in the selected water purification processes*

Type: Basic research project

Duration: 2010-2019

Contact person:

Ivana Ivančev-Tumbas, Faculty of Sciences, University of Novi Sad



CONTACT PERSON

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