COST ACTION GREENERING – DATA COLLECTION

First name, Family Name: Irena Zizovic
Type (Academic or Industrial): Academic
Country: Poland
Leadership position in the COST: MC Member on CA18224
Working Group in which you are involved: WG3
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Laboratory/Company: Wroclaw University of Science and Technology, Faculty of Chemistry

Laboratory/Company info: The Faculty of Chemistry has a variety of research topics. Basic research is carried out including the chemistry and technology of inorganic products, polymeric chemistry and technology, surfactant chemistry, chemical metallurgy, fuel technology, environmental technologies, biochemistry, microbiology, physical and theoretical chemistry and chemical informatics.

Link to the home page of the Laboratory/Company: http://wch.pwr.edu.pl/en/

Fields of expertise:

- Application of supercritical fluids in extraction and impregnation processes
- Polymer modifications using supercritical fluids
- Development of added value materials using high-pressure processes

5 Main publications or patents:

- I. Zizovic, L. Senerovic, I. Moric, T. Adamovic, M. Jovanovic, M. Kalagasidis Krusic, D. Misic, D. Stojanovic, S. Milovanovic, Utilization of supercritical carbon dioxide in fabrication of cellulose acetate films with anti-biofilm effects against *Pseudomonas aeruginosa* and *Staphylococcus aureus*, The Journal of Supercritical Fluids 140 (2018) 11–20.
- J. Pajnik , M. Radetić , D. B. Stojanović , I. Janković-Častvan, V. Tadić , M. V. Stanković, D. M. Jovanović, I. Zizovic, Functionalization of polypropylene, polyamide and cellulose acetate materials with pyrethrum extract as a natural repellent in supercritical carbon dioxide, The Journal of Supercritical Fluids 136 (2018) 70-81,
- S. Milovanovic, M. Stamenic, D. Markovic, J. Ivanovic, I. Zizovic, Supercritical impregnation of cellulose acetate with thymol, The Journal of Supercritical Fluids, 97 (2015) 107–115.
- F.Meyer, M. Stamenic, I. Zizovic, R. Eggers, Fixed bed property changes during scCO2 extraction of natural materials – Experiments and modeling, The Journal of Supercritical Fluids, 72 (2012)140–149
- D. Marković, S. Milovanović, K. De Clerck, I. Zizovic, D. Stojanović, M. Radetić, Development of material with strong antimicrobial activity by high pressure CO2 impregnation of polyamide nanofibers with thymol, Journal of CO□ Utilization 26 (2018) 19-27.

Collaborations:
Hamburg University of Technology (TUHH) Germany; Universidad Nacional de Mar del Plata, Mar del Plata, Argentina; University of Belgrade, Serbia; New Chemical Syntheses Institute, Pulawy, Poland; University of Montenegro; Latvia State Institute of Fruit Growing; Kaunas University, Lithuania; Wroclaw University of Life and Environmental Sciences, Poland; Institute for Medicinal Plant Reasearch "Dr Josif Pancic", Belgrade, Serbia; University of Nis, Serbia.

Facilities:

- Laboratory units for high-pressure extraction and impregnation using carbon dioxide
- Laboratory units for membrane separation
- Laboratory bioreactor units