





University of Zagreb Faculty of Textile Technology & AMCA TTF

invite you to a

SCIENTIFIC LECTURE

entitled

IONIC LIQUIDS AND DEEP EUTECTIC SOLVENTS - APPLICATION IN THE TEXTILE FIELD -

by

Professor Dragan Đorđević, PhD

on Wednesday, June 5th, 2024 at 12:00

in lecture hall B-316, Prilaz baruna Filipovića 28a, Zagreb

Abstract:

Waterless systems can reduce or completely eliminate the amount of water used in textile processing. Using less water provides environmental benefits as well as cost savings. Not only are water and energy conserved in waterless processes, but operating costs can be cheaper than conventional processes. Recent research has shown that ionic liquids and eutectic solvents have the potential to be used instead of water in the textile field. Ionic liquids have attracted enormous attention as both materials and reaction solvents, not only in science but also in industry, with an increasing number of scientific publications and patents. Eutectic solvents are, basically, liquid salts that are characterized by the formation of hydrogen bonds or metal-halide bonds through anions from the salt, in contrast to the electrostatic forces between anions and cations in ionic liquids. The name eutectic solvents derives from the fact that when the two components are mixed in the proper ratio, the eutectic point can be seen. What makes ionic liquids and eutectic solvents (mixtures) attractive is their ease of preparation, low cost, low volatility and toxicity, as well as biodegradability in most cases. The results of recent research on the properties and application of "green" solvents in textile processing are presented.

Biography:



Dragan Đorđević, PhD is full professor at University of Niš, Faculty of Technology Leskovac Serbia. In 1989 he graduated from the Faculty of Technology, Chemical and Textile section, with the highest marks. In 1989 he was selected as an assistant trainee at the Faculty of Technology in Leskovac for the course "Textile finishing technology". He defended his master's thesis entitled "Modifications of Textile Materials from Synthetic Fibers to Improve Their Diffusion Characteristics" in 1993 at the same Faculty, and was elected as Assistant for several teaching courses. He defended his doctoral thesis entitled "New chemical systems in the bleaching processes of textile materials" at the Faculty of Technology in Leskovac in 2000. He was elected as Assistant Professor in 2001, Associate Professor in 2006, and Full Professor in 2010.

He is engaged in scientific research work in the field of technological engineering, narrow scientific field of chemical technology of textiles. He has published a number of papers in journals of international and national importance and participated in a number of international and national scientific conferences (1 university textbook, 3 monographs, more than 300 scientific papers in international and national journals, and conference proceedings). He also participated, as a manager and researcher, in the realization of several scientific research projects funded by the Ministry of Science of the Republic of Serbia. His research interest is in finishing, dyeing and printing of all textile materials; cological waste management of the textile industry; synthesis and characterization of polymeric textile materials. He is a member of the editorial board of several scientific and professional journals; reviewer of reputable domestic and foreign journals, mentor of diploma and doctoral thesis at the Faculty of Technology in Leskovac.