



University of Zagreb  
Faculty of Textile Technology (TTF) and AMCA TTF

invite you to a

# SCIENTIFIC LECTURE

entitled

**„Nanocelluloses from agricultural waste: Characterization and investigation of potential applications“**

by

**Prof. Hamid Kaddami**

from Cadi Ayyad University of Marrakech

**on Thursday, 12<sup>th</sup> May 2022 at 11:00**

**lecture hall A - 101, Prilaz baruna Filipovića 28a, Zagreb**

## Abstract:

The preparation of nanocellulose (NFC and NCC) is topical and many studies in the literature focus on the effect of preparation conditions on the morphology and physico-chemical properties especially in the case of NFC. In our projects on the valorization of Moroccan plants and agriculture by products we were interested in the extraction of nanocelluloses development of new materials and applications. In our recent studies we have confirmed that the conditions of NFC preparation have significant effect on NFC characteristics, especially the aspect ratio of NFC and other physico-chemical characteristics of NFC, such as surface charge, crystalline index, etc. More recently we focused our studies on how the characteristics of the NFC prepared by mean of TEMPO mediated oxidative pretreatment could influence on the properties of their corresponding gels, aerogels, materials and composites. Among the studied materials, aerogels monoliths and nanocomposites with randomly dispersed and/or oriented NFCs. The results showed that the properties of the gels and those of the other materials such as the thermal conductivity of the aerogel or the dielectric properties of the composites were significantly affected by the nanocellulose characteristics and properties.

## Biography:



Dr Hamid KADDAMI received his PhD at INSA of Lyon-France in 1995. He joined Cadi Ayyad University of Marrakech in September 1996. He was appointed Full Professor at the same university in July 2003. Prof Kaddami had many national and international Distinctions such: Yamada Foundation, Fulbright, Prize of (INNOV 'ACT) competition of the R & D - Morocco association, etc. Since his appointment at Cadi Ayyad University, he contributed to the establishment of teaching programs in the field of polymers and composites. The first research activities of Pr. Hamid KADDAMI were focused on inorganic organic hybrid nanocomposites. Then since 2003, he set up at Cadi Ayyad University the research activities in the field of polymers and composites that aim to valorize Moroccan natural resources by integrating them into the development of functional biomaterials and biocomposites. This research has been supported by many national agency, such as the Hassan II Academy of Sciences and Technologies and the National Center for Scientific and Technical Research of the Kingdom of Morocco, as well as European and American organizations within the framework of international programs, such

as CORUS program, NFS-USA research programs (IIMEC Project), the ISRC of Sweden, etc. Thus various international collaborations have also been set up with prestigious scientific research laboratories and institutes. He supervised and co-supervised more than 20 PhD and post-doctoral students and published more than 100 research papers in specialized journals. In collaboration with other colleagues from worldwide universities, Professor Hamid KADDAMI set up the international conference ICBMC (International Conference on Bio-Based Materials and Composites). This conference reached its fifth edition in 2019. He also edited many special issues in scientific journal such as Journal of Industrial Crops and Products (Elsevier) and Journal of Renewable Materials (Tech Science Press). Since 2019, He became member of the editorial board of Journal of Industrial Crops and Products (Elsevier), as Associate Editor.

The main research expertises of Prof Kaddami are related to Biobased composites, Nanocelluloses preparation and their composites, Biopolymers, Polymers synthesis, Biopolymers based aerogels, Physical Properties of biobased materials, Biobased polymers electrolytes, etc.