Special Issue

Mechanical Characterization of Bio-Based Materials and Structures

Message from the Guest Editors

There is a general worldwide increase in environmental awareness, leading to a transition from a fossil-based to a bio-based society. Bio-based materials are made from substances derived from living matter (biomass) and either occur naturally or are synthesized, covering a broad range of products for medicine, environmental protection and industry. Many current commercial bio-based materials are based on industrial fibers or wood with an extended application in the field of building and construction, contributing this way to energy efficient designs through the reduction of both energy demand and embodied energy. Different bio-based products are all in strong expansion. New bio-based materials and structures are continually emerging, which may show completely new properties, and the opportunities to use them in existing and novel products should be explored. The evaluation of the relationships between structure, properties, and behavior through a proper material characterization is therefore a main interest. Original papers and reviews dealing with the latest findings in the mechanical characterization of bio-based materials and structures are all welcome.

Guest Editors

Dr. José Xavier

Department of Mechanical and Industrial Engineering, Faculty of Sciences and Technology, Universidade NOVA de Lisboa, Lisbon, Portugal

Dr. Almudena Majano Majano

Department of Building Structures and Physics, School of Architecture, Universidad Politécnica de Madrid, 28040 Madrid, Spain

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MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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