

## CALL FOR PAPERS

Since the emergence of nanotechnology in the past few decades, the development and design of biobased nanomaterials had become an important field of research. Looking at the growing concern about the environment and sustainability, such nanomaterials find many applications in a wide range of domains that influence our society and our way of life. The improvement of properties and the discovery of new functionalities are key goals that cannot be reached without a well-controlled and a better understanding of the preparation and analytical methods which constitute the starting points of the design of specific and adequate systems.

Scanning techniques including scanning electron microscopy (SEM), transmission electron microscopy (TEM), atomic force microscopy (AFM), and Raman spectroscopy are crucial tools for observing morphology, analyzing the microstructure, and determining specific physicochemical features. These microscopic methods allow understanding the properties of biobased nanomaterials and related innovative systems with controllable structures, elucidating the formation and modification mechanisms, and demonstrating the potential of the obtained systems for adequate applications.

The aim of this special issue is to publish high quality research papers as well as comprehensive reviews addressing novel and state-of-the-art topics from active researchers in the fields. A particular focus is on analytic scanning tools and latest application of microscopies in characterization and development of biobased nanomaterials with outstanding performances.

Advances of analytical scanning techniques (SEM, TEM, FEM, Raman, etc.) are adopted for characterization of the topics of this special issue.

Potential topics include but are not limited to the following:

- ▶ Scanning electron microscopy for biobased nanomaterials (nanocellulose, nanolignin, nanostarch, and nanochitosan)
- ▶ Scanning for structure-property relationships of biobased nanomaterials
- ▶ Atomic force microscopy for structure-property relationships of biobased nanomaterials
- ▶ Scanning for biobased nanomaterials with outstanding properties for next-generation applications
- ▶ Scanning for biobased nanomaterials applications (medical, filtration, energy, corrosion, catalysis, automotive, aerospace, sensors, adhesives, packaging, food, construction, etc.)

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/scanning/cpbn/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

**Lead Guest Editor**

Djalal Trache, Ecole Militaire  
Polytechnique, Algiers, Algeria  
[djalaltrache@gmail.com](mailto:djalaltrache@gmail.com)

**Guest Editors**

Dilip Depan, University of Louisiana at  
Lafayette, Lafayette, USA  
[ddepan@louisiana.edu](mailto:ddepan@louisiana.edu)

Vinod Kumar, Cranfield University,  
Bedfordshire, UK  
[vinod.kumar@cranfield.ac.uk](mailto:vinod.kumar@cranfield.ac.uk)

M. Hazwan Hussin, Universiti Sains  
Malaysia, Penang, Malaysia  
[mhh@usm.my](mailto:mhh@usm.my)

Rafael L. Quirino, Georgia Southern  
University, Statesboro, USA  
[rquirino@georgiasouthern.edu](mailto:rquirino@georgiasouthern.edu)

**Submission Deadline**

Friday, 10 August 2018

**Publication Date**

December 2018