



Multiscaling in Polymer Composite Materials

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Message from the Guest Editors

Dear Colleagues,

Despite a long, successful history of industrial application, polymer composite materials still represent complicated systems, and understanding and describing their deformation behavior is a tremendous problem. An adequate solution may only be found within a multiscale approach.

Currently, a significant number of monographs have been published, that are devoted to i) technological aspects of fabricating polymer composites, ii) methods on the examination of their structure and mechanical testing, iii) establishing fracture criteria, including data of non-destructive testing, iv) modeling their behavior under various schemes and loading conditions.

Paying tribute to all the research carried out already, in this topic issue, you are invited to present the current state of research on polymer composite materials from the perspective of their multilevel consideration. This implies both i) analysis of the structure and deformation processes at various scale levels, ii) direct control of structure formation, iii) analysis of damaging and assessment of the mechanical state, iv) development of approaches to modeling fracture processes in the hierarchy of scales.





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Message from the Editor-in-Chief

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