



BOOK REVIEW

**MULTIPHASE POLYMER SYSTEMS: MICRO- TO NANOSTRUCTURAL
EVOLUTION IN ADVANCED TECHNOLOGIES**

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(Editors)

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This book brings up-to-dated information about of a very modern and interesting field, which excites much scientific and technological interest in the last decades because of very diverse applications from automotive, aeronautics, space industry to displays, medicine and pharmacy.

Multiphase/multicomponent polymer materials enable a very good control of morphology from macro- to micro- and nano-scale and evident also of the properties which can be tailored to meet requirements in all-mentioned applications.

The book is well-organized in 18 chapters, written based on references in the last two decades and analyzes theoretical aspects of phase separation, morphological, rheological, interfacial, physical, fire-resistant, thermo-physical, and biomedical properties of multiphase polymer systems, covering copolymers, polymer blends, polymer composites, gels, interpenetrating polymer networks, and layered polymer/metal structures. Particular attention was given to several systems as advanced materials based on multicomponent polymeric systems, with special applications as liquid crystals and liquid crystals dispersed in synthetic and natural polymer matrices, electrically conductive single and multiphase systems, maleimide – or imide – containing composites, fire resistant epoxy resins, magnetic and metallic composites and films. There are also presented several modern techniques of investigation of the multiphase systems, such as atomic force microscopy, lateral force image, transmission electron microscopy, dynamic mechanical thermo-analysis, X-ray diffraction, rheology, etc.

It is emphasizing on the most studied research trends in obtaining and characterization of the advanced bio- and nano-structured materials, developed nanotechnologies and the applied solution in nanomedicine.

This book is addressed both to researchers from different disciplines and also to students, educators and technologists.

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