Special Issue

Polymers Assembly and Applications

Message from the Guest Editor

Intermolecular interactions form the basis of the theory of the physical network of entanglements in polymer systems and substantiate the physicochemical properties of polymer materials. Meanwhile, low-energy non-covalent polymer–solvent interactions in synthetic polymers, until recently, were on the periphery of the attention of science in relation to high molecular weight compounds.

Nevertheless, the main contribution to the role of non-covalent interactions with low molecular weight compounds was made by works on organic, inorganic and organometallic synthesis and catalysis, obtaining crystals and biomaterials. Meanwhile, such an extensive field of knowledge as polymer materials science was practically out of sight, despite the fact that that non-covalent interactions in polymer objects are important both.

Hence, in order to obtain polymeric materials with certain physicochemical and, in some cases, mechanical strength characteristics, it is necessary to understand the role of non-covalent macromolecule–low-molecular substance interactions in the formation of certain structural features in synthetic polymers and especially the composite materials based on them.

Guest Editor

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