



polymers



Special Issue Reprint

Polymer Clay Nano-composites

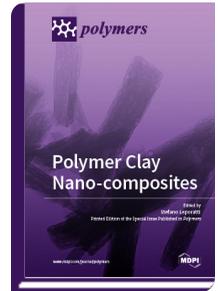
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This Special Issue focuses on the current state-of-the-art of “Polymer Clay Nano-Composites” for biomedical, anticorrosion, antibacterial, and other applications. Clay-polymer composite nanomaterials represent an emerging area of research. Loading polymers with clay particles essentially enhances the composite strength features. Of particular interest are different nano-assembly methods, such as silane mono and multilayers, polyelectrolyte layer-by-layer assembly, and others. An important development was reached for tubular and fibrous clay nanoparticles, such as halloysite, sepiolite, and imogolite. Polymer clay nanoparticles can be prepared as sheets with 1-nm thickness and width of a few hundred nm (e.g., kaolin and montmorillonite). Fibrous clays significantly reinforce the nano-composites in the assembly with biopolymers and other green polymers, leading to functional hybrid bio nano-composites. The scope of this Special Issue comprehensively includes the synthesis and characterization of polymer clay nano-composites used for several applications, including nano-clay polymer composites and hybrid nano-assemblies.



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