

Special Issue

Nanoscale Catalytic Synthesis of Biodegradable or Biobased Polymeric Materials from Carbon Dioxide

Message from the Guest Editors

Carbon dioxide (CO₂)-based biodegradable polymers are gaining attentions since they can alleviate both the global warming effect and white plastic pollution. Recent advances in catalysts for CO₂ copolymerization will aid the development of biodegradable or biobased polymeric materials from CO₂. We are seeking original research and review articles that will stimulate the continuing efforts to design and develop nanoscale catalytic synthesis of CO₂ copolymers. This Special Issue aims to cover a wide range of subjects, including all kinds of polymeric materials from carbon dioxide including CO₂-based polycarbonate, polyester, polyurea, polyurethane, etc. and all kinds of catalyst for CO₂ copolymerization including metal complex catalyst and metal-free catalyst, as well as CO₂-based polymers applied in different scene including packaging materials, foam materials, barrier materials, electrolytes or binders for lithium-ion batteries, etc.

Guest Editors

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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano–alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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