

Special Issue

Enzyme-Responsive Materials: Design and Applications

Message from the Guest Editors

Enzyme-responsive materials have become an important focus in chemistry, materials science, and biomedicine. These systems can recognize enzymatic signals and convert them into controlled structural or functional changes, enabling targeted drug release, sensitive diagnostics, and tissue repair. Early studies mainly relied on simple enzyme-triggered cleavage or degradation. In recent years, advances in polymer design, nanotechnology, and supramolecular assembly have led to more versatile and programmable platforms. This Special Issue will highlight recent progress in the design, synthesis, and characterization of enzyme-responsive materials, as well as their biomedical and technological applications. We welcome submissions that present innovative strategies, mechanistic understanding, or translational relevance. Both original research articles and reviews are encouraged, provided they emphasize novelty, scientific rigor, and broad impact. This Special Issue aims to comprehensively review recent advancements in enzyme-responsive materials. We welcome all contributions including full papers, communications, and reviews.

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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