Special Issue

Recent Advances in Sensory Polymers

Message from the Guest Editors

Sensory polymers represent a rapidly advancing class of functional materials capable of transducing chemical, physical, or biological stimuli into detectable signals. Progress in polymer synthesis, supramolecular chemistry, and nanostructured materials has enabled unprecedented control over their responsiveness, selectivity, and signal amplification. As a result, sensory polymers are increasingly being explored for applications in chemical and biological sensing, environmental monitoring, healthcare diagnostics, food quality control, and smart packaging systems. Recent developments include the rational design of conjugated and fluorescent polymers, stimuli-responsive hydrogels, molecularly imprinted polymers, and hybrid polymer-based sensing platforms that integrate multiple functionalities within a single material. This Special Issue focuses on recent advances in the molecular design, fabrication strategies, and sensing mechanisms of polymer-based sensory systems, with an emphasis on structure–property–function relationships and performance in relevant application environments.

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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