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Smart Soft Materials: From Design to Applications

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Message from the Guest Editors

Dear Colleagues,

Smart materials can adaptively respond to an external stimulus and exhibit a useful physical or chemical change such as volume, mechanical stress, oxidization–deoxidization, and so on. The stimulus may be mechanical stress, temperature, light, moisture, pH, or an electric or magnetic field. The important characteristic of the response of smart materials is reversibility or tunability by controlling the strength of the stimulus. To obtain smart materials, a key aspect is to develop substances with highly physical and chemical stability and strong stimulus-responsive characteristics. In this regard, soft materials might be very suitable compounds for such purposes owing to their largely tunable ability compared to hard materials. In addition, self-healing properties can be easily induced in soft responsive materials.

This Special Issue will cover the molecular design and preparation of smart soft materials and the versatile applications of smart soft materials in soft actuators, soft wearable devices, soft robotic, tissue engineering, artificial skin, biosensors, etc.



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Special Issue



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Message from the Editor-in-Chief

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