Special Issue

Smart Soft Materials: From Design to Applications

Message from the Guest Editors

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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Deadline for manuscript submissions

20 September 2025

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/194935

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mdpi.com/journal/materials

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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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