Special Issue

Advanced Application in Smart-Fluid-Based Sensors and Actuators

Message from the Guest Editors

Smart fluid is a liquid-based system with collective properties endowed by the cooperation of the dispersoid and dispersant phases, whose single agents or constituents enable the emergence of smart distributed functionalities such as information processing capabilities, self-powering, sensing capabilities, and mobility. Commonly recognized smart fluids include, but are not limited to, ferrofluid, liquid metal, magneto(electro)rheological fluid, ionic liquid, nanoparticle/liquid-crystal colloids, and photorheological fluid. The sensing and actuating capabilities of smart fluid mainly come from two mechanisms. The first is the internal transformation of their microscopic state, such as phase transition, cross-linking, or formation of anisotropic microstructures. The second is the mobility of the smart fluid under external stimulus, which can be regarded as the ideal sensing form to detect the deformation of soft electronics or robots. This Special Issue encourages authors to submit experimental or theoretical research on the keywords below, and works on relevant fields are also considered.

Guest Editors

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Deadline for manuscript submissions

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Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

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