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Electroactive Polymer Actuators

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

Electroactive polymers represent an exciting and unique subset of materials that have garnered great interest over the last decade due to their ability to mechanically actuate in response to an applied electric field or to store energy acquired from mechanical deformation of the polymer structure. These materials have potential as sensors through their electrical response to deformation, in energy harvesting, and as actuators. Due to their versatility, electroactive polymers have application in various areas including textiles, robotics, aerospace, and in the medical sector. Therefore, this Special Issue invites articles on the synthesis of electroactive materials, electromechanical testing, material and design optimization, modelling, and real-world applications of these materials.

Keywords:

- electroactive polymer materials
- flexible sensors
- polymer actuators
- dielectric elastomer
- ionic electroactive polymers
- artificial muscles
- conducting polymers
- polymer gels
- ionic polymer metal composites



