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Innovative Actuators Based on Shape Memory Alloys

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Message from the Guest Editors

Dear Colleagues,

Shape memory alloys (SMA) provide unique opportunities designing actuators with diverse innovative applications in industry, medicine, robotics and life. The high-power density of SMAs is a prerequisite for creating one of the most compact actuators compared to many others based on conventional drives, such as electric motors, hydraulic and pneumatic cylinders, combustion engines, etc. In addition, the specific properties of SMAs allow the development of actuators with diverse functionalities and minimal building elements. The thermal drive of SMAs with one-way and two-way shape memory effect, combined with high-energy density, is an excellent precondition for designing competitive micro- and nanoactuators with applications in medicine, microrobotics and microfluidic systems. This Special Issue intends to provide a forum for researchers and developers to share ideas, current trends and achievements related to SMA-driven actuators. Original and innovative research papers from both academia and industry are welcome.



