



Magneto-Rheological Fluids

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Message from the Guest Editors

Magneto-rheological fluids offer unique opportunities for realizing adaptive structural systems capable of modulating their response by properly modifying their stiffness and their damping. Since the related transformations occur at a rate well beyond the classical kHz magnitude, a sort of standard reference for structural systems bandwidth, they can suit the realization of adaptive control systems well for optimizing, for instance, impact energy diffusion, as for shock absorbers, landing gears, adaptive bumpers, and so on, or dynamic response by stiffness adjustment, useful for noise control, maneuver optimization, direction control, and so on. The evolution of MRF devices may be easily tracked on scientific literature ranging all along the last thirty years and more. The ambition of this Special Issue is instead to concentrate on the applications of this technology, pointing at its potentiality, and its limitations, trying to provide a reliable picture of the state of the art in terms of reliability and marketability of MRF-based devices.





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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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