Special Issue

Ultrasound Technology in Industry and Medicine

Message from the Guest Editor

At present, the number of ultrasound applications is constantly growing in the form of new, innovative methods and devices. Ultrasonic waves are used to detect and characterize the elastic properties of objects in any type of medium (except vacuum). They have relatively low speed and effectively propagate both in the human body and in metal objects (unlike electromagnetic waves), which is a very useful feature in measurements and imaging. Additionally, important applications for ultrasound include micro-mechanical systems, ultrasonic motors and sensors, as well as signal processing systems on surface waves. Ultrasonic waves can also transmit significant mechanical energy, which is used for material processing (cleaning, soldering, welding, drilling, spraying, creating emulsions, accelerating chemical reactions) and in surgery and medical therapy (cavitation cutting of tissues, drilling of bones and teeth, tartar removal, breaking down fat cells and kidney stones, thermal destruction of cancer, phonophoresis, aerosol therapy).

Topics of interest to be covered by this Special Issue include new and innovative methods and applications of ultrasound technology in industry and medicine.

Guest Editor

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Deadline for manuscript submissions

closed (10 August 2022)

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/72573

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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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