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Sensors for Ultrasonic NDT in Harsh Environments

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Deadline for manuscript submissions:

closed (1 November 2019)

Message from the Guest Editors

Ultrasonic nondestructive testing (NDT) has traditionally been conducted in relatively benign environments, with temperatures between 0°C and 100°C and negligible radiation fields. However, there is a growing demand for the use of ultrasonics in high radiation fields at nuclear power plants, or at high temperatures such as those encountered in online inspection or processing monitoring in the petrochemical, metal processing, and various manufacturing industries. Commercial ultrasonic transducers are generally unable to operate in such environments, due to the breakdown of individual components, loss of sensitivity or failure of the entire system integrity.

This Special Issue is focused on the design, manufacture, testing, and operational experience of ultrasonic transducers for NDT and process control in very harsh environments. Manuscripts are welcome that deal with the entire transducer, or that concentrate on the materials and design of a single transducer component.



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Special Issue



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Message from the Editor-in-Chief

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