



Advanced Sound Absorption Materials and Applications

Guest Editor:

Dr. Ruben Picó Vila

1. Instituto de Investigación para la Gestión Integrada de Zonas Costeras, Universitat Politècnica de València, Carrer del Paranimf 1, 46730 Gandia, València, Spain
2. Universitat Politècnica de València/disabled, Valencia, Spain

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Message from the Guest Editor

Research on materials for sound absorption and noise mitigation has dramatically evolved in recent years. The discovery of new physical phenomena has provided new innovative solutions and technology for the development of advanced sound absorption materials. Many challenges for the engineering of acoustic materials for sound absorption have motivated this research, such as reducing the density and thickness of materials or developing new promising alternatives for both thermal insulation and acoustic absorption.

Prediction tools are very powerful for understanding and describing the acoustic characteristics of different media from the microstructure to demonstrate their acoustical macro-behavior. Acoustic artificial metamaterials with exotic effective parameters have advances in manipulating and absorbing sound waves, particularly in sound absorption. Perfect sound absorption and absorption at subwavelength thickness can be obtained by properly designing these materials. Science and engineering converge in this field of acoustics to discover, develop, and fabricate new advanced sound absorption materials for future promising applications.





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Editor-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Message from the Editor-in-Chief

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Materials Editorial Office
MDPI, St. Alban-Anlage 66
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