

Special Issue

Compressive Strength, Impact Damage and Crushing Behavior of Materials

Message from the Guest Editors

This Special Issue seeks to assemble original research and in-depth review articles focused on the compressive strength, impact damage, and crushing behaviour of materials across diverse scales and applications. In contemporary engineering, materials are often driven to their performance thresholds in contexts such as aerospace and automotive components, civil infrastructure, and defence systems. Therefore, gaining a comprehensive understanding of their behaviour under extreme loading conditions is essential for ensuring safety, optimising performance, and enhancing design strategies.

We invite contributions that focus on the mechanical response of traditional and advanced materials under high-strain-rate loading, quasi-static compression, and impact/crushing scenarios. Emphasis is placed on experimental investigations, theoretical modelling, and numerical simulations that provide insight into failure mechanisms, energy absorption, post-failure behaviour, and microstructural effects.

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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.

Editor-in-Chief

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