

## Special Issue

# Materials and Modelling for Extreme Loading Conditions

### Message from the Guest Editor

Investigation into the mechanical behavior of materials is a present challenge, especially if exploited in the building of predictive models aimed to replicate the mechanical behavior of complex systems and structures. This Special Issue aims to address the mechanical behavior of different kind of materials (metals, ceramic, composites, etc.) including innovative ones with focus on modelling approaches for extreme loading conditions: large deformation and failure, ballistic and low velocity impact, explosion, crack and damage, delamination, corrosion, and so on. Papers dealing with the modeling of the mechanical behavior of materials, advanced simulation methods including both analytical and numerical approaches, multi-physics and multiscale approaches, testing solutions, and advanced applications to systems and structures and theoretical approaches, all in the field of extreme loading conditions, are encouraged. **Keywords**

- extreme loading
- material behavior
- tests
- simulations

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### Guest Editor

Prof. Dr. Andrea Manes

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### Deadline for manuscript submissions

closed (15 October 2021)



## Materials

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## About the Journal

### Message from the Editor-in-Chief

*Materials* (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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### Editor-in-Chief

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