Special Issue

Behavior of Structural Building Materials in Fire

Message from the Guest Editor

Building materials exposed to fire is an engineering topic devoted to the study of all fire-resistant materials to protect buildings from damage. Most common building materials can protect the structure but allow fire to spread. There are many engineering applications where such issues need to be solved using fire safety rules. New materials are developed and must be tested to enable fire resistance. Studies conducted to understand the behavior of structural building materials in the case of fire include thermal effects, heat transfer, numerical analysis, fire tests of material properties, and all protective issues. This research will provide a thorough understanding and a basis for future research in the field of building materials exposed to fire. Building materials in fire situations is a very important field of research due to current challenges and the need for ever-innovative solutions. The following topics are welcome for submission: Structural - thermal analysis: Finite element modeling applied to fire solutions; Fire tests; Fire protection; fire resistance; Fire safety equipment; Fire-resistant materials.

Guest Editor

Prof. Dr. Elza Maria Morais Fonseca

Department of Mechanical Engineering, Polytechnic Institute of Porto, ISEP-IPP, Porto, Portugal

Deadline for manuscript submissions

26 June 2026



Fire

an Open Access Journal by MDPI

Impact Factor 2.7 CiteScore 3.9



mdpi.com/si/254695

Fire
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
fire@mdpi.com

mdpi.com/journal/ fire





Fire

an Open Access Journal by MDPI

Impact Factor 2.7 CiteScore 3.9



About the Journal

Message from the Editor-in-Chief

Fire is an international open-access journal about the science, policy, and technology of fires and how they interact with communities and the environment. Fire seeks to provide a forum to help the fire science community convey how we can live with fire in a changing world. Fire seeks submissions from interdisciplinary studies that take a pyrogeography perspective of fires occurring in natural, cultural, and industrial landscapes and how they interact with communities in the science-policy interface. Fire's Editorial Board are widely recognized international leaders. The journal emphasizes quality and innovation and has a rigorous peer-review process. I strongly recommend Fire for the rapid publication of your innovative research publications and case studies.

Editor-in-Chief

Dr. Grant Williamson

School of Biological Sciences, University of Tasmania, Private Bag 55, Hobart, TAS 7001, Australia

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), AGRIS, PubAg, and other databases.

Journal Rank:

JCR - Q1 (Forestry) / CiteScore - Q1 (Forestry)

