



Research and Development of Modified Building Materials

Guest Editor:

Prof. Maria Stefanidou

Civil Engineering Department,
Aristotle University of
Thessaloniki Polytechnic School,
Thessaloniki 54124, Greece

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Message from the Guest Editor

Dear Colleagues,

Materials scientists study traditional materials and building technology with the aim to learn, transfer knowledge, and advance it. Additionally, newly developed cement-based materials are evolving in order to fulfil the requirements needed for construction. Composites and modified materials are using nanotechnology and alkali-activated mechanisms as well as reactive additives in order to improve their durability and address their inherent weaknesses. Cheap, easy-to-find, environmentally friendly, and effective additives can improve the insulation and consistency of composite materials, influencing fresh and hardened properties. Modified coatings can improve properties such as hydrophobicity, roughness, self-cleanliness, or even adhesion. Material modification can be achieved by different ways either within the structure or by elaborating their surface. Nevertheless, the aim is to produce durable materials with innovative properties able to solve complex structural problems.

Keywords

- cement
- lime
- bio-fibres
- additives
- coatings
- nano-modified
- alkali-activated





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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

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Materials Editorial Office
MDPI, St. Alban-Anlage 66
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