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Research on Durability and Aging on Materials and Structures in Buildings

Guest Editors:

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Deadline for manuscript submissions:
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Message from the Guest Editors

We are pleased to invite you to contribute to this Special Issue entitled “Research on Durability and Aging on Materials and Structures in Buildings”. Mechanical properties of polymeric materials are key of importance in all applications where polymers are used as a structural building material. The mechanical properties of polymers can be highly modified by the environment, which often acts as a degradation factor, and degradation can be also increased by the simultaneous action of mechanical stress.

Therefore, this Special Issue aims to collect original research studies, review papers, and experimental and/or numerical investigations that are focused on the durability and aging of polymers and coatings in structural applications in buildings. Topics of particular interest include, but are not limited to:

- adhesive joints and sealants;
- interlayers of laminated glass;
- composites with polymeric matrix;
- comparison of artificial aging methods and natural aging;
- corrosion of coated steel in concrete;
- stabilization of corrosion products against aging;
- passivation conversion coatings;
- bond strength of coated reinforcement with concrete.

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Message from the Editor-in-Chief

Current urban environments are home to multi-modal transit systems, extensive energy grids, a building stock, and integrated services. Sprawling neighborhoods are composed of buildings that accommodate living and working quarters. However, it is expected that the cities and communities of the future will face complex and enormous challenges, including maintenance, interconnectivity, resilience, energy efficiency, and sustainability issues, to name but a few. A smart city uses advanced technologies and a digital infrastructure to improve the outcomes in every aspect of a city's operations. A smart building optimizes the experience of occupants, staff, and management by using a modern and connected environment. Innovations in technology that can bring dramatic improvements to design, planning, and policy are critical in developing the cities and buildings of the future.

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