

Special Issue

Porous Materials in Coating Technologies: Design, Fabrication, and Applications

Message from the Guest Editors

Porous materials, with pore structures from nanoscale to millimeter scale, possess unique physical and chemical properties. By integrating coating techniques, these materials enable functional, protective, and decorative coatings with superior performance. Their value lies in controlling porosity, pore size, and surface chemistry, addressing energy conservation, environmental protection, and multifunctionality. With advances in nanotechnology and green manufacturing, porous materials are driving industrial transformation and sustainable development. This Special Issue covers the latest advancements in porous materials, including fabrication and characterization of porous coatings, theoretical modeling, and practical applications like energy storage, catalysis, filtration, carbon capture, drug delivery, thermal insulation, and 3D printing. We welcome full papers, reviews, and short communications.

Guest Editors

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About the Journal

Message from the Editorial Board

Now more than ever, research is asked to deliver knowledge and technologies to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed in the spotlight of most contemporary research. Surface science and engineering play a key role in this regard, with an incredible potential in delivering new and deep scientific understanding and technical solutions essential to solve most of the major societal challenges.

Coatings is a well-established, peerreviewed, online journal dedicated to the vibrant field of surface science and engineering. Coatings publishes original research articles that report cutting-edge results and review papers that make the point on the hottest research topics.

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