Special Issue

New Insights into Coating Materials: From Fundamentals to Material Performance

Message from the Guest Editor

Coating materials are substances applied as a thin layer to the surface of an object to provide protection, decoration or specific functional properties. At present, in order to make materials better adapt to a variety of complex and extreme environments (such as high temperature, oxidation erosion, hot salt mixture corrosion and even radiation), make up for the current technical shortcomings and main needs, and formulate feasible strategies to improve wear resistance, the oxidation resistance, corrosion resistance and mechanical properties of materials are necessary. This Special Issue is devoted to research on the surface properties of materials, the oxidation mechanism and oxidation behavior of surface coatings, the principles and methods of damage protection of materials in complex extreme environments, and more advanced processing and manufacturing technology, as well as the theory and application of surface interface performance control. Therefore, we are inviting the submission of full-length original articles and reviews to this Special Issue, aiming to cover the scientific knowledge in this area and discuss the topics of interest.

Guest Editor

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Message from the Editor-in-Chief

Welcome to *Crystals*, the journal dedicated to the fascinating world of crystallographic research! Crystals are more than mere decorative elements; they hold the key to understanding the fundamental structure of matter. Our mission is to explore the crucial significance of this research across various fields. From medicine to technology, chemistry to geology, crystals play a vital role. Their structure provides insights into new advanced materials, innovative drugs, and groundbreaking technologies. Through *Crystals*, we delve into the microscopic world to discover solutions that will shape the future. Join us on a journey through the *Crystals*, where science merges with beauty and innovation.

Editor-in-Chief

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