Special Issue

Advanced Ceramic-Based Materials/Coatings for Anti-Wear and Corrosion Applications

Message from the Guest Editors

Wear and corrosion damage is ubiquitous in the fields of engineering, and severely influences the regular operation of equipment. In particular, the excessive wear and corrosion damage of some key components can directly cause the equipment to shut down. Therefore, it is of great significance to develop advanced wear and corrosion resistant materials. Ceramics possess a high hardness and chemical stability, which makes ceramics the ideal candidate for anti-wear and corrosion applications. However, traditional ceramics have many drawbacks when applied as structural parts, such as brittleness, poor machinability and a high cost. Thus, it is urgent to develop new ceramic materials or corresponding composites which are suitable for use under severe wear and corrosion conditions. This Special Issue is mainly focused on ceramic-based materials or coatings for anti-wear and corrosion applications, including ceramics, cermets, metal- or ceramic-based composites, coatings, hardfacings and the characterization of wear or corrosion behaviors. Research contributions and review articles highlighting recent progress in the field are all welcome.

Guest Editors

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Deadline for manuscript submissions

closed (20 January 2025)

Materials

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/168726

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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