

Special Issue

Properties and Applications of New Coating Materials

Message from the Guest Editors

These coatings—such as self-healing coatings, superhydrophobic surfaces, and nanocomposite films—exhibit exceptional properties, including corrosion resistance, thermal stability, anti-fouling, and tailored optical/electrical characteristics. Their development addresses limitations of traditional coatings, offering solutions for extreme environments and evolving technological demands.

We are pleased to invite authors to contribute their research on the “Properties and Applications of New Coating Materials”. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- High-entropy ceramic coatings;
- Non-oxide ceramic coatings (carbides, nitrides, borides);
- Nanoparticle-modified and 2D nanomaterial-reinforced coatings;
- Functional metallic/ceramic/composite PVD and CVD coatings;
- Sol-gel and organic–inorganic hybrid coatings;
- Bio-compatible and bio-active coatings;
- Super-hydrophobic/super-hydrophilic and self-cleaning surfaces;
- Smart/multi-functional and stimuli-responsive coatings;
- Anti-icing and de-icing coatings.

We look forward to receiving your contributions.

Guest Editors

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Deadline for manuscript submissions

20 June 2026



Materials

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



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About the Journal

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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