Special Issue

AI Revolutionizing Materials Science and Engineering

Message from the Guest Editor

The following is a list of possible topics which would fit well into this Special Issue: **Accelerating material discovery**: AI can analyze complex material property relationships, predict novel material compositions with desired functionalities;
Enhancing material characterization: AI-powered tools can analyze data from characterization techniques like electron microscopy and spectroscopy;
Optimizing material processing: Machine learning algorithms can analyze process parameters and material responses, leading to the development of optimized processing techniques for tailored material properties;
Materials performance: Understanding the performance and integrity of materials, taking in real-time data and predicting the health of assets in concert with asset integrity management systems;
Materials selection: Never before have we had the tools to process and use the vast amount of data which exists on the performance of materials in any application or environment;
Teaching and learning for the next generation of materials scientists and engineers: AI tools offer unprecedented opportunities to enhance pedagogy and support the next generation graduates.

Guest Editor

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Deadline for manuscript submissions

closed (20 January 2025)

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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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