

Special Issue

Advances in Cold Spraying Technology for Sustainable Material Development and Green Energy Application

Message from the Guest Editor

Cold spraying (CS) technology is a cutting-edge, solid-state additive manufacturing process that enables us to deposit materials without melting them, preserving their intrinsic properties and minimizing energy consumption. Since its development in the late 20th century, cold spraying has evolved from a coating technology into a versatile platform for additive manufacturing. It has been applied across industries such as aerospace, automotive, energy, and biomedical engineering. Recent advances highlight innovations in equipment design, process optimization, and feedstock material development. Applications include corrosion-resistant coatings, high-performance components for hydrogen energy systems, repair of critical parts, and production of materials for energy storage and conversion. Cold spraying's ability to operate at lower temperatures reduces greenhouse gas emissions and aligns with sustainable manufacturing practices.

Guest Editor

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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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