



SUBMIT AN ABSTRACT FOR THE FOLLOWING SYMPOSIUM

MATERIALS SYNTHESIS AND PROCESSING

Advances in Materials Deposition by Cold Spray and Related Technologies III

Cold spray is a solid-state layer-by-layer deposition of accelerated microparticles through a de Laval nozzle toward a substrate or previously deposited particles. Since its discovery, interest in cold spray technology has grown significantly as it serves as a potentially greener manufacturing alternative due to recent stringent environmental regulations. Cold spray continues to gain widespread traction in several industries, including aerospace, energy, military, biomedical, etc., and continued efforts on process and powder optimization are necessary to meet the anticipated expansion beyond traditional applications. Exploring the structure-property relationships of materials deposited via cold spray and related technologies, as well as its practical industrial applications, topics will include:

1. Experimental, theoretical, and computational studies on cold spray process, and other solid-state additive manufacturing processes
2. Effect of processing and feedstock parameters on bonding
3. Powder development and optimization
4. Microstructural evolution and evaluation of high-speed microparticle impact
5. Mechanical and deteriorative behavior of cold-sprayed components
6. Cold spray-induced residual stress-state and its effects on component performance
7. Industrial applications of cold spray (performance, repair, product efficiency, and sustainability)

SPONSORED BY:

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