

COLD SPRAY DEPOSITION OF METASTABLE MATERIALS

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The preservation of some of the main microstructure features of the feedstock material during deposition is a key differentiation of cold spray technology. As a consequence, precise control and characterization of the feedstock powder become an even more significant venture. Moreover, capitalizing on existing powder manufacturing techniques to obtain metastable materials is a real possibility. The hard to attain metastable microstructures of deposited metallic alloys becomes more accessible with this technology, but very modest progress has been reported on this area in recent years. This lecture will discuss recent results and its implications for future materials processing development.