

COMBINED USE OF POWDER METALLURGY TECHNOLOGIES AND METHODS OF SEVERE PLASTIC DEFORMATION TO OBTAIN ADVANCED NANOSTRUCTURED MATERIALS

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Abstract

A thermal stability of structure, strength properties and creep resistance at elevated temperatures of nanostructured molybdenum and Cu- and Ni-based composites obtained by powder metallurgy, and processed by severe plastic deformation, has been studied. It is shown that combining powder metallurgy technologies with the severe plastic deformation processing is an attractive way for the production of advanced materials with enhanced mechanical properties.

Keywords: *nanosstructure, severe plastic deformation, metal matrix composites*