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## Evaluation of Mechanical Properties on Boron Carbide and CNT Reinforced Copper based Composites

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### Abstract

*The study focuses on the influence and contribution of multi-walled Carbon-Nano tube (MWCNT) and boron carbide (B4C) to the mechanical properties of copper matrix composites. Different weight fractions of Nano-B4C and MWCNT-reinforced copper composites were prepared using the ultrasonic assisted stir casting methodologies. Various tests such as density, tensile, compression and hardness were conducted as per ASTM standards. The addition of reinforcements showed enhancements in the mechanical properties such as, compressive strength and hardness of the composites due to the uniform dispersion of the secondary reinforcement in the copper matrix and the self-lubricating effect of the MWCNTs*

### Author Keywords

Boron Carbide(B4C), Multi-walled Carbon-Nano tube (MWCNT), Compression and Hardness

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