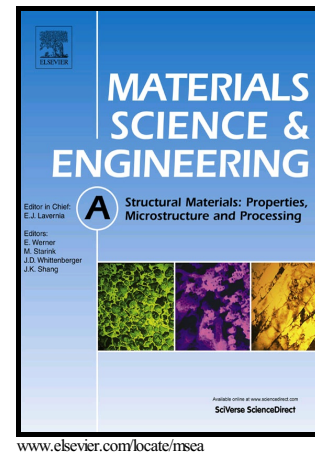


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**Enhanced mechanical properties and high electrical conductivity in multiwalled carbon nanotubes reinforced copper matrix nanolaminated composites**

Jiapeng Liu, Ding-Bang Xiong\*, Zhanqiu Tan, Genlian Fan, Qiang Guo, Yishi Su,  
Zhiqiang Li, Di Zhang\*

*State Key Laboratory of Metal Matrix Composites, Shanghai Jiao Tong University, Shanghai,  
200240, China*

xiongdinbang@sjtu.edu.cn

zhangdi@sjtu.edu.cn

\* Corresponding author. Tel.: +86 21 54742348; Fax: +86 21 34202749.

**Abstract:** Multiwalled carbon nanotubes/copper (MWCNTs/Cu) composites with a nanolaminated structure have been successfully prepared via flake powder metallurgy. The key strategies are to achieve uniform dispersion of carbon nanotubes in copper matrix and laminated structure, leading to high strengthening efficiencies and architecture toughening. As a result, the composites show balanced failure strength and elongation and high electrical conductivity. The tensile strength of 1.0 vol% MWCNTs/Cu laminated composite is 395 MPa, 87% higher than that of coarse-grained Cu. At the same time, the enhancement on strength does not cause serious deterioration in failure elongation and electrical conductivity. A satisfied uniform elongation in excess of 20% and an electrical

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