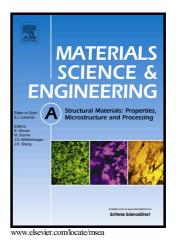
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Microstructure and Mechanical Properties of Aluminum Matrix Composites Reinforced with Pre-oxidized β -Si₃N₄ Whiskers

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Abstract

Aluminum matrix composites (AMCs) reinforced with pre-oxidized β -Si₃N₄ whiskers (β -Si₃N₄w) were fabricated by hot pressing method. An amorphous SiO₂ layer was formed on the surface of β -Si₃N₄w aiming to enhance the interfacial bonding strength between aluminum and β -Si₃N₄. The interfacial structure showed that β -Si₃N₄w was well bonded with aluminum and no reaction products were formed near the interface. Effect of preDownload English Version:

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