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عنوان مقاله:

Microstructural Characterization and Modeling of Discontinuously Reinforced Al-matrix Composite

محل انتشار:

دومین کنفرانس بین المللی و هشتمین کنفرانس ملی مهندسی ساخت و تولید (سال: 1386)

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خلاصه مقاله:

Aluminum matrix composites are very common engineering materials in automotive, aerospace and other application due to their low weight, high strength, and excellent wear resistance. In this work, different amount of zircon ceramic particles (ZrSiO4) were incorporated in A356.1 (aluminum alloy) by stir-casting route. Processing temperature was 750C. This method was in order to achieve homogeneous composite material and better solidification conditions. SEM micrographs show that reinforcing particles were dispersed homogeneously in the samples (not clustered). The hardness and tensile strength of zircon reinforced aluminum were higher than those of the monolithic aluminum. The .%.hardness and tensile strength were decreased with zircon amount increasing above 5 vol

کلمات کلیدی:

Aluminum matrix composites, reinforcement, zircon

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