سیویلیکا - ناشر تخصصی مقالات کنفرانس ها و ژورنال ها
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عنوان مقاله:

Mechanical (tensile, hardness and fatigue) behavior of the Al-Al2O3p composites fabricated by stir casting method

محل انتشار:

دومین کنفرانس بین المللی آلومینیوم (سال: 1391)

تعداد صفحات اصل مقاله: 5

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خلاصه مقاله:

Aluminum–alumina particulate composites are a class of metal matrix composites which have high strength-to-weight ratio and low density. The most important mechanical property in industries is the fatigue behaviour. Hence, it is important to know more about mechanical properties of these composites. In this study, composite samples containing of different weight percent of 1%, 2%, 3% Al2O3 particles in size of 20µm were fabricated by stir casting method, extruded by reduction area of 1:20 and heat treated by T6 condition. Microstructure of these composite materials was characterized by using scanning electron microscopy (SEM). Then Hardness, tensile and fatigue properties of these composites were investigated. It is observed that by increasing in weight percent of Al2O3, the .hardness, tensile strength and fatigue strength more increased

کلمات کلیدی:

Al-Al2O3 Composite, Hardness, Low cycle fatigue properties, Microstructure, Tensile strength

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