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

Brittle fracture of PMMA under combination of in-plane and out-ofplane shear loading

محل انتشار:

کنفرانس دو سالانه بین المللی مکانیک جامدات تجربی (سال: 1396)

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خلاصه مقاله:

Since most of cracked components are subjected to mixed mode loading, studying the fracture behavior ofdifferent materials under these conditions is necessary. In order to do so, theoretical and experimental assessmentshave to be performed together. In this study, a novel test configuration (composed of a specimen and a loading fixture)is presented for conducting mixed mode II/III fracture tests. Simple geometry, less complexity and ease of set-up aresome advantages of this configuration. Several experiments are performed on a brittle material called PMMA(Polymethyl-methacrylate). A comparison between the experimental data and the theoretical estimations shows .that theobtained experimental results are in a good consistency with the predictions of Richard fracture criterion

کلمات کلیدی:

brittle fracture, mixed mode loading, spatial loading, out-of-plane shear, in-plane shear

لینک ثابت مقاله در پایگاه سیویلیکا:

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