عنوان مقاله:

EXPERIMENTAL AND NUMERICAL STUDIES ON MIXED MODE COHESIVE FRACTURE OF ADHESIVELY BONDED JOINTS

نویسنده:

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خلاصه مقاله:

A broad experimental and analytical effort using fracture mechanics as the prime tool was conducted to investigate and improve the understanding of the mixed-mode cohesive fracture behavior of bonded joints. As a part of experimental efforts, mixed-mode fracture tests were performed using modified Arcan specimens consisting of several combinations of adhesive, composite and metallic adherends with a special loading fixture, in which by varying the loading angle, from 0o to 90o, mode-I, mixedmode and mode- II fracture data were obtained. The main objective of this study was to determine the fracture toughness for a range of substrates under mixed-mode loading conditions. Fracture surfaces obtained at different mixed-mode loading conditions for various adherends were also discussed

کلمات کلیدی:

fracture mechanics, mixed-mode, adhesively bonded joints

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