

Fatigue Crack Initiation of Al-Alloys: Effect of Heat Treatment Condition

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Abstract : In this investigation an empirical study was made on fatigue crack initiation on 7075 T6 and 7075 T71 al-alloys under constant amplitude loading. At initiation stage, local strain approach at the notch was applied. Single Edge Notch Tensile specimen with semi circular notch is used. Based on experimental results, effect of mean stress, is highlights on fatigue initiation life. Results show that fatigue life initiation is affected by notch geometry and mean stress.

Keywords : fatigue crack initiation, al-alloy, mean stress, heat treatment state

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