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Application of Kinetic Indentation Technique to Estimate Wear and Fatigue Behaviors of Irradiated Small Specimens

조사된 미소 시편의 마모와 피로 거동을 평가하기 위한 동적 압침법

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Abstract

Kinetic indentation technique was studied and a method to evaluate wear and fatigue behaviors of irradiated small specimen was suggested. The method is based on both the proportion of elastic and plastic deformation and values obtained by micro-hardness test. The parameters obtained from the diagram of load-indentation depth-time are required to evaluate wear and fatigue properties. Considering the irradiated test specimen, it is one of possible and useful methods to estimate the irradiated wear and fatigue behaviors of the small size specimen. This article briefly describes the status of irradiated material study in domestic research reactor.