

Experimental Verifications of the applicability of the Wöhler Curve Method for a low-cycle fatigue of metallic materials

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Abstract

Recently, a description on a practicability of the Wöhler Curve Method for LCF of metallic materials was given by Yan. By the description and the low-cycle fatigue test data of 16MnR steel, it is important to illustrate that, for LCF of the metallic material, such a way that a “stress quantity” calculated based on the *linear-elastic analysis* is taken to be the *stress intensity parameter*, S , to establish a relationship between the *stress intensity parameter*, S , and the fatigue life, N , is practicable. In this study, many examples from the literature are given to illustrate that the Wöhler Curve Method is well suitable for LCF analysis of metallic materials

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