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Nota di contenuto	1. Biaxial fatigue of metals. A survey of the present understanding -- 1.1. Introduction -- 2. Physical aspects of the fatigue phenomenon under uniaxial and biaxial loading -- 2.1. The fatigue phenomenon under uniaxial loading -- 2.2. Different modes of fatigue crack growth -- 2.3. The fatigue phenomenon under biaxial load cycles -- 3. Biaxial fatigue research programs -- 3.1. Two methods to describe biaxial load conditions -- 3.2. Specimens for research on biaxial fatigue -- 4. Predictions of fatigue properties for biaxial fatigue loads -- 4.1. Predictions and the similarity concept -- 4.2. Biaxial fatigue of full-scale structures -- 5. Summarizing conclusions -- References.
Sommario/riassunto	Problems of fatigue under multiaxial fatigue loads have been addressed in a very large number of research publications. The present publication is primarily a survey of biaxial fatigue under constant amplitude loading on metal specimens. It starts with the physical understanding of the fatigue phenomenon under biaxial fatigue loads. Various types of proportional and non-proportional biaxial fatigue loads and biaxial stress distributions in a material are specified. Attention is paid to the fatigue limit, crack nucleation, initial micro

crack growth and subsequent macro-crack in different modes of crack growth. The interference between the upper and lower surfaces of a fatigue crack is discussed. Possibilities for predictions of biaxial fatigue properties are analysed with reference to the similarity concept. The significance of the present understanding for structural design problems is considered. The book is completed with a summary of major observations.