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Autore	Bathias Jean-Claude
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3.5. Effect of metallurgical instability at the yield point in ultrasonic fatigue3.6. Gigacycle fatigue of pure metals; 3.6.1. Microplasticity in the ferrite; 3.6.2. Effect of gigacycle fatigue loading on the yield stress in Armco iron; 3.6.3. Temperature measurement on Armco iron; 3.6.4. Intrinsic thermal dissipation in Armco iron; 3.6.5. Analysis of surface fatigue crack on iron; 3.7. Conclusion; 3.8. Bibliography; INDEX

Sommario/riassunto

Is there a fatigue limit in metals? This question is the main focus of this book.
 Written by a leading researcher in the field, Claude Bathias presents a thorough and authoritative examination of the coupling between plasticity, crack initiation and heat dissipation for lifetimes that exceed the billion cycle, leading us to question the concept of the fatigue limit, both theoretically and technologically.
 This is a follow-up to the Fatigue of Materials and Structures series of books previously published in 2011.
  Contents 1. Introduction on Very High Cycle Fatigue.
 2.