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Titolo	Creep-Fatigue Fracture: Analysis of Internal Damage // by Weisheng Zhou, Naoya Tada, Junji Sakamoto
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Nota di contenuto	Introduction -- Grain boundary cavity and damage evaluation in creep fatigue -- Conditions for appearance of internal intergranular cracking type fracture under creep-fatigue -- Initiation and growth behavior of small inner crack -- Basics of model of random fracture resistance of grain boundaries -- Numerical simulation of the initiation and growth of small inner cracks -- Effect of small inner cracks on macrocrack propagation -- Annihilation and healing of small inner cracks and extension of fatigue life -- Conclusions.
Sommario/riassunto	This book presents a detailed analysis of the processes of internal damage and healing of damage in high-temperature creep-fatigue. This analysis is based on experimental results and a three-dimensional visualization and simulation method. It focuses on inner cracking type fracture, which is essential to consider for creep-fatigue in actual equipment and structures used at high temperatures for long periods of time. In this book, systematic studies of the fracture are presented by introducing three-dimensional simulation and visualization

methods. This book is for designers and researchers in industry specializing in strength of materials at high temperatures. It is also for a postgraduate or higher academic audience specializing in mechanical engineering and materials science engineering. In reading the book it is expected that readers will acquire knowledge of evaluation techniques for high-temperature creep-fatigue damage. In addition, this book allows readers to improve the accuracy of damage evaluation, design materials for longer lifetimes, and apply the described techniques to other materials.
