DESCRIPTION

The complete primer to micromechanics

Fundamentals of Micromechanics of Solids is the first book integrating various approaches in micromechanics into a unified mathematical framework, complete with coverage of both linear and nonlinear behaviors. Based on this unified framework, results from the authors' own research, as well as existing results in the literature are re-derived in a logical, pedagogical, and understandable approach. It enables readers to follow the various developments of micromechanics theories and quickly understand its wide range of applications of micromechanics.

This helpful guide is a powerful tool for learning the most fundamental ideas and approaches, basic concepts, principles, and methodologies of micromechanics. Readers will find:

* Vigorous derivations of the mathematical framework

* Introductions to both linear and nonlinear material behavior

* Unique coverage of brittle damage, shape memory alloys, and TRIP steels

* Large numbers of problems and exercises to support teaching and learning the concepts
ABOUT THE AUTHOR

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FEATURES

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