



Resumo de Engineering Materials 2: An Introduction to Microstructures and Processing

Engineering Materials: An Introduction to Microstructures and Processing is a comprehensive introduction to microstructures and processing of materials for engineering students and other related courses. It is composed of chapters that are arranged into four sections: metals, ceramics, polymers, and composites, which are the distinct generic classes of materials.

The materials are presented in an easy-to-read style, while establishing the main concepts and providing details on how processing, microstructures, and physicochemical characters are interrelated. The book emphasizes the relationship between structure, processing and properties, of both conventional and innovative materials.

It provides detailed discussions of the different aspects of transformations, including interface kinetics, nucleation and growth, and constitutional undercooling. The book also presents new case studies and examples to illustrate, develop and consolidate the different topics.

The text features new photographs and links to Google Earth, websites and video clips, and a companion site with access to instructors' resources: solution manual, image bank of figures from the book and a section of interactive materials science tutorials.

The text aims to provide detailed discussions about engineering materials to senior-level and postgraduate students of mechanical engineering, manufacturing, materials science, engineering design, products design, aeronautical engineering, and other engineering sciences.

Many new or revised applications-based case studies and examplesTreatment of phase diagrams integrated within the main textIncreased emphasis on the relationship between structure, processing and properties, in both conventional and innovative materialsFrequent

worked examples - to consolidate, develop, and challengeMany new photographs and links to Google Earth, websites, and video clipsAccompanying companion site with access to instructors resources, including a suite of interactive materials science tutorials, a solutions manual, and an image bank of figures from the book"

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