

1. Record Nr.	UNINA9910687990203321
Titolo	High entropy materials : microstructures and properties // edited by Yong Zhang
Pubbl/distr/stampa	London : , : IntechOpen, , 2023
Descrizione fisica	1 online resource (266 pages)
Disciplina	536.73
Soggetti	Entropy Materials
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. Microstructures and Deformation Mechanisms of FCC-Phase High-Entropy Alloys -- 2. Cost-Effective Fe-Rich High-Entropy Alloys: A Brief Review -- 3. Breaking the Property Trade-Offs by Using Entropic Conceptions -- 4. Solid Solution Strengthening in High-Entropy Alloys -- 5. Proposition of a Growth Law as a Function of Solidification Parameters for Monotectic Alloy Systems -- 6. High Entropy Thin Films by Magnetron Sputtering: Deposition, Properties and Applications -- 7. Optimization of Retained Austenite and Corrosion Properties on EN-31 Bearing Steel by Cryogenic Treatment Process -- 8. Simulation and Calculation for Predicting Structures and Properties of High-Entropy Alloys -- 9. CALPHAD as a Toolbox to Facilitate the Development of HEAs -- 10. Development of Orthopedic Implants with Highly Biocompatible Ti Alloys -- 11. High-Entropy Alloys for Bone Tissue Engineering: Recent Developments in New Methods of Manufacture -- 12. Iron-Based Superconductors.
Sommario/riassunto	High-Entropy Materials - Microstructures and Properties summarizes recent developments in multicomponent materials. It discusses properties, processing, modeling, and applications of high-entropy materials, including metallic alloys and oxides. It also discusses solidification, sputtering, cryogenic treatments, CALPHAD methodology, biomedical implants, Fe-based superconductors, Fe-rich high-entropy alloys, and more.

