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Titolo	High-Entropy Alloys : Fundamentals and Applications / / edited by Michael C. Gao, Jien-Wei Yeh, Peter K. Liaw, Yong Zhang
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ISBN	3-319-27013-3
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (524 p.)
Disciplina	620.11
Soggetti	Materials science Thermodynamics Heat engineering Heat transfer Mass transfer Nanoscale science Nanoscience Nanostructures Mechanics Mechanics, Applied Characterization and Evaluation of Materials Engineering Thermodynamics, Heat and Mass Transfer Nanoscale Science and Technology Solid Mechanics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Overview of High-Entropy Alloys -- Phase Formation Rules -- Physical Metallurgy -- Advanced Characterization Techniques -- Fabrication Routes -- Mechanical Properties of High-Entropy Alloys -- Functional Properties -- Prediction of Structure and Phase Transformations -- Applications of Coherent Potential Approximation to HEAs -- Applications of Special Quasi-random Structures to High-Entropy Alloys -- Design of High-Entropy Alloys -- CALPHAD Modelling of

	High-Entropy Alloys -- High-Entropy Metallic Glasses -- High-Entropy Coatings -- Potential Applications and Prospects.
Sommario/riassunto	This book provides a systematic and comprehensive description of high-entropy alloys (HEAs). The authors summarize key properties of HEAs from the perspective of both fundamental understanding and applications, which are supported by in-depth analyses. The book also contains computational modeling in tackling HEAs, which help elucidate the formation mechanisms and properties of HEAs from various length and time scales.