

1. Record Nr.	UNINA9910141252303321
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Titolo	Solidification and crystallization processing in metals and alloys [[electronic resource] /] / Hasse Fredriksson and Ulla Akerlind
Pubbl/distr/stampa	Chichester, West Sussex, U.K. ; ; Hoboken, N.J., : Wiley, 2012
ISBN	1-283-54273-0 9786613855183 1-119-97554-9 1-119-97555-7 1-119-97832-7
Descrizione fisica	1 online resource (828 p.)
Altri autori (Persone)	AkerlindUlla
Disciplina	669/.94
Soggetti	Metal crystals - Growth
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 and index.
Nota di contenuto	Solidification and Crystallization Processing in Metals and Alloys; Contents; Preface; 1 Thermodynamic Concepts and Relationships; 1.1 Introduction; 1.2 Thermodynamic Concepts and Relationships; 1.2.1 First Law of Thermodynamics. Principle of Conservation of Energy; 1.2.2 Enthalpy; 1.2.3 Second Law of Thermodynamics. Entropy; 1.2.4 Gibbs' Free Energy; 1.2.5 Intensive and Extensive Thermodynamic Quantities; 1.3 Thermodynamics of Single-Component Systems; 1.3.1 Clausius-Clapeyron's Law 1.3.2 Equilibrium between Liquid and Solid Phases. Influence of Pressure and Crystal Curvature on Melting Point1.3.3 Equilibrium between Liquid and Gaseous Phases. Influence of Pressure on Boiling Point. Bubble Formation in Melts; 1.3.4 Molar Gibbs' Free Energy of a Pure Metal; 1.4 Thermodynamics of Multiple-Component Systems; 1.4.1 Partial Molar Thermodynamic Quantities; 1.4.2 Relative Thermodynamic Quantities and Reference States. Relative Partial Molar Thermodynamic Quantities or Partial Molar Quantities of Mixing 1.4.3 Relative Integral Molar Thermodynamic Quantities or Integral Molar Quantities of Mixing1.4.4 Other Thermodynamic Functions and Relationships; 1.5 Thermodynamics of Alloys; 1.5.1 Heat of Mixing;

1.5.2 Ideal and Non-Ideal Solutions; 1.6 Thermodynamics of Ideal Binary Solutions; 1.6.1 Molar Gibbs' Free Energy of Ideal Binary Solutions; 1.7 Thermodynamics of Non-Ideal Binary Solutions; 1.7.1 Activities of Non-Ideal Solutions Raoult's and Henry's Laws; 1.7.2 Excess Quantities of Non-Ideal Solutions; 1.7.3 Molar Gibbs' Free Energies of Non-Ideal Binary Solutions
 1.8 Experimental Determination of Thermodynamic Quantities of Binary Alloys
 1.8.1 Determination of Molar Heat of Mixing of Binary Alloys; 1.8.2 Determination of Partial Molar Gibbs' Free Energy of Mixing of Binary Alloys; Summary; Further Reading; 2 Thermodynamic Analysis of Solidification Processes in Metals and Alloys; 2.1 Introduction; 2.2 Thermodynamics of Pure Metals; 2.2.1 Driving Force of Solidification; 2.3 Thermodynamics of Binary Alloys; 2.3.1 Gibbs' Free Energy of Ideal Binary Solutions; 2.3.2 Gibbs' Free Energy of Non-Ideal Solutions 2.3.3 The Regular-Solution Model. Miscibility Gap in a Regular Solution
 2.4 Equilibrium Between Phases in Binary Solutions. Phase Diagrams of Binary Alloys; 2.4.1 Gibbs' Phase Rule; 2.4.2 Gibbs' Free Energy Curves for Solid and Liquid Binary Solutions; 2.4.3 The Tangent to Tangent Method to Predict Phases in Binary Solutions; 2.4.4 Calculation of Chemical Potentials from Gibbs' Free Energy Diagrams; 2.4.5 Phase Diagrams of Binary Alloys; 2.4.6 Relationship between Molar Gibbs' Free Energy Curves and Phase Diagrams. Construction of Phase Diagrams; 2.4.7 Influence of Parameters on Phase Diagrams
 2.5 Driving Force of Solidification in Binary Alloys

Sommario/riassunto

Solidification and Crystallization Processing in Metals and Alloys Hasse Fredriksson KTH, Royal Institute of Technology, Stockholm, Sweden Ulla Akerlind University of Stockholm, Sweden Solidification or crystallization occurs when atoms are transformed from the disordered liquid state to the more ordered solid state, and is fundamental to metals processing. Conceived as a companion volume to the earlier works, Materials Processing during Casting (2006) and Physics of Functional Materials (2008), this book analyzes solidification and crystallizat

2. Record Nr.	UNIORUON00487851
Titolo	Middle English prose : a critical guide to major authors and genres / edited by Anthony S. G. Edwards
Pubbl/distr/stampa	New Brunswick, : Rutgers University, 1984
ISBN	08-13-51001-5
Descrizione fisica	XI, 452 p. ; 23 cm.
Soggetti	LETTERATURA INGLESE - Sec. 12.-16. - Studi
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia