1. Record Nr. UNINA9910778793303321

Titolo	Rodents / / Committee on Rodents, Institute of Laboratory Animal Resources, Commission on Life Sciences, National Research Council
Pubbl/distr/stampa	Washington, D.C. : , : National Academy Press, , 1996
ISBN	0-309-17692-1 1-280-19605-X 9786610196050 0-309-58577-5 0-585-01994-0
Descrizione fisica	1 online resource (179 pages) : illustrations
Collana	Laboratory animal management
Disciplina	619/.93
Soggetti	Rodents as laboratory animals
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Sommario/riassunto	During the 15 years since the Institute of Laboratory Animal Resources issued its last report on the general management of rodents, advances in biomedical technology and increased public awareness of laboratory animal issues have created a new research environment. This book brings researchers up to date on both of these aspects of laboratory investigation and provides a comprehensive resource manual for management of laboratory rodents. It reviews relevant laws and ethical considerations, and it examines the role and responsibilities of mandatory institutional animal care and use committees. The expert panel addresses animal selection, sources of laboratory rodents, nomenclature and record keeping, management of genetically and nongenetically defined colonies, and management of animals with special needs. Investigators will find detailed guidance on housing, environment, sanitation, diet and caloric restriction, and facilities design.

2. Record Nr. UNINA9910830976303321

Autore	Vignes Alain
Titolo	Extractive metallurgy . 1 Basic thermodynamics and kinetics [[electronic resource] /] / Alain Vignes
Pubbl/distr/stampa	London, : ISTE Hoboken, N.J., : Wiley, c2011
ISBN	1-118-61967-6 1-118-61897-1 1-299-44930-1 1-118-61990-0
Edizione	[1st ed.]
Descrizione fisica	1 online resource (369 p.)
Collana	Extractive metallurgy ; ; 1
Disciplina	669 669.028
Soggetti	Metallurgy Extraction (Chemistry)
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	Cover; Extractive Metallurgy 1; Title Page; Copyright Page; Table of Contents; Preface; Chapter 1. Metallurgical Thermochemistry; 1.1. Introduction; 1.2. Quantities characterizing the state of a system and its evolution; 1.2.1. The types of operations; 1.2.2. Stoichiometric description of a chemical system; 1.2.3. Evolution of a system's state: degree of advancement of a reaction; 1.2.4. Characteristic quantities of a phase's composition; 1.3. Thermodynamic fundamentals of reactions; 1.3.1. Reaction enthalpy 1.3.2. Gibbs free energy of a system, affinity of a reaction and chemical potential of a component1.3.3. Expressions of the chemical potential and activities of a component; 1.3.4. Affinity of a reaction: law of mass action (thermodynamic modeling of a process); 1.3.5. Applications; 1.4. Phase diagrams; 1.4.1. Binary phase diagrams; 1.4.2. Ternary phase diagrams; 1.5. Bibliography; Chapter 2. Oxides, Sulfides, Chlorides and Carbides; 2.1. Introduction; 2.2. Metal-oxygen/metal-sulfur systems activities in the intermediate phases; 2.2.1. Phase diagrams 2.2.2. Component activities in the intermediate phases2.3. Standard

Gibbs free energy: temperature diagrams for oxides - Ellingham-Richardson diagrams; 2.3.1. Stoichiometric oxides; 2.3.2. Unstoichiometric compounds; 2.3.3. Thermodynamic data for the reduction of oxides by a reducing gas; 2.4. Thermodynamic data for sulfides and chlorides; 2.4.1. Ellingham-Richardson diagram for sulfides; 2.4.2. Stability diagrams for the (M-O-S) systems; 2.4.3. Ellingham-Richardson diagram for chlorides; 2.4.4. Stability diagrams of M-O2-Cl2 systems
2.5. Metal-carbon phase diagrams and the Ellingham-Richardson diagram for carbides2.6. Carbon and carbon oxide reactions; 2.6.1. Oxidation reactions; 2.6.2. Boudouard's reaction; 2.6.3. The different types of coal; 2.7. Bibliography; Chapter 3. Metal Solutions, Slags and Mattes; 3.1. Introduction; 3.2. Metal solutions; 3.2.1. Phase diagrams and activities of liquid alloys components; 3.2.2. Activities and solubilities of metalloids in metal solutions; 3.2.3. Solubility and precipitation of oxide and sulfide compounds in metals; 3.3. Mattes 3.3.1. Structure and physical properties of sulfide melts (mattes)3.3.2. Thermodynamic data for the binary Fe-S, Ni-S, Cu-S and Pb-S systems; 3.3.3. Thermodynamic data of ternary mattes; 3.3.4. Thermodynamic data for M-O-S systems; 3.4. Slags; 3.4.1. Structure and physical properties; 3.4.2. Phase diagrams and activities; 3.4.3. Phase diagrams and activities of oxide mixtures forming the basis of metallurgical slags CaO-SiO2-Al2O3-MgO; 3.4.4. Phase diagrams and activities of mixtures of CaO-SiO2 -Al2O3-MgO oxides and reducible (iron, manganese and chrome) oxides; 3.5. Bibliography
Chapter 4. Aqueous Electrolytic Solutions and Salt Melts

Sommario/riassunto

This book is dedicated to the processes of mineral transformation, recycling and reclamation of metals, for the purpose of turning metals and alloys into a liquid state ready for pouring. Even though ""process metallurgy"" is one of the oldest technologies implemented by man, technological innovation, with the development of processes that are both focused on product quality and economically and ecologically efficient, continues to be at the heart of these industries. This book explains the physico-chemical bases of transformations, vital to their understanding and control (optimization of