

1. Record Nr.	UNISA996213450503316
Titolo	Hydrogen effects in materials : proceedings of the Fifth International Conference on the Effect of Hydrogen on the Behavior of Materials sponsored by the Structural Materials Division (SMD), Mechanical Metallurgy and Corrosion & Environmental Effects Committees of the Minerals, Metals & Materials Society, held at Jackson Lake Lodge, Moran, Wyoming, September 11-14, 1994 // edited by Anthony W. Thompson and Neville R. Moody
Pubbl/distr/stampa	Warrendale, Pennsylvania : , : The Minerals, Metals & Society Society, , 1996 ©1996
ISBN	1-118-80325-6 1-118-80327-2 1-118-80336-1
Descrizione fisica	1 online resource (1090 p.)
Disciplina	669.94
Soggetti	Metals - Hydrogen embrittlement
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.
Nota di contenuto	Cover; Title Page; Copyright Page; CONTENTS; Foreword; CONFERENCE KEYNOTE; The Role of Hydrogen: Is The Story Any Clearer?; HYDROGEN INTERACTIONS; Hydrogen-Dislocation Interactions (Keynote); Hydrogen Interaction with 0-, 1-, and 2- Dimensional Defects (Invited); Deuterium and Tritium Applications to the Quantitative Study of Hydrogen Local Concentration in Metals and Related Embrittlement (Invited); Hydrogen Induced Embrittlement and the Effect of the Mobility of Hydrogen Atoms (Invited) Atomistic Calculations of Hydrogen Interactions with Ni <sub>3</sub> Al Grain Boundaries and Ni/Ni <sub>3</sub> Al Interfaces (Invited) Bonding Strengths and Anomalous Hydrogen Absorption in Some Intermetallic Systems; The Investigation of Hydrogen Redistribution Under a Tensile Load; Characterization of Defects in Deuterium-implanted Beryllium; The Role of Traps in Determining the Resistance to Hydrogen Embrittlement; Hydrogen Trapping and its Correlation to the Hydrogen Embrittlement

Susceptibility of Al-Li-Cu-Zr Alloys; The Interaction of Hydrogen with a  
-Titanium Alloy

On the Mechanism of Hydrogen Interaction with Titanium at  
Temperatures from 300 to 373K and Pressures up to 150 MPa Modeling  
the Segregation of Hydrogen to Lattice Defects in Nickel; The Behavior  
of Impurity Hydrogen in Metallic Materials; Hydrogen Absorption in  
Metals During Electrolytic Processes and the Physical-Mechanical  
Properties of Steel; PERMEATION; The Effect of Surface on the  
Measurement of Hydrogen Transport in Iron with the Electrochemical  
Permeation Technique (Invited); Diffusion of Hydrogen in Titanium;  
Hydrogen Solubility in Ti-24Al-11 Nb

Hydrogen Solution and Diffusion in L12-Ordered (Co, Fe)<sub>3</sub>V Alloy and  
Their Roles in Environmental Embrittlement Modeling of Hydrogen  
Transport in Cracking Metal Systems; Comparison of the High  
Temperature Hydrogen Transport Parameters for the Alloys Incoloy  
909, Haynes 188, and Mo-7.5 Re; Deuterium Desorption from  
Beryllium; Hydrogen Transport Through TiO<sub>2</sub> Film Prepared by Plasma  
Enhanced Chemical Vapor Deposition (PECVD) Method; Measurements  
of Diffusion and Permeation for Protium in p-PdH<sub>x</sub> and Modeling of  
Diffusion Process

Investigation of a Hydrogen Charging Method on an Austenitic  
Structure Thermal Desorption Analysis (TDA): Application in Quantitative  
Study of Hydrogen Trapping and Release Behavior; MECHANICAL  
PROPERTIES; The Effect of Deformation Rates on Hydrogen  
Embrittlement; Hydrogen Attack in Creeping Polycrystals due to  
Cavitation on Grain Boundaries; The Effect of Hydrogen on the Fracture  
Behavior of Aluminum Titanium Metal Matrix Composites; Effect of  
Pressure and Temperature on Hydrogen Environment Embrittlement of  
Incoloy Alloy 909

Hydrogen Effects on Cyclic Deformation Behavior of a Low Alloy Steel

Sommario/riassunto

Hydrogen Effects in Materials