1. Record Nr. UNINA9911006775803321

Titolo	Characterization of minerals, metals, and materials 2013 : proceedings of a symposium sponsored by the Materials Characterization Committee of the Extraction and Processing Division of TMS (The Minerals, Metals & Materials Society) : held during the TMS 2013 Annual Meeting & Exhibition, San Antonio, Texas, USA, March 3-7, 2013 / / edited by Jiann-Yang Hwang ... [et al.]
Pubbl/distr/stampa	Hoboken, N.J., : Wiley, 2013
ISBN	1-5231-0503-8 1-118-65904-X 1-118-65905-8 1-299-18880-X
Edizione	[1st ed.]
Descrizione fisica	1 online resource (596 p.)
Altri autori (Persone)	HwangJiann-Yang
Disciplina	620.1
Soggetti	Materials - Testing Materials - Analysis
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; Title Page; Copyright Page; TABLE OF CONTENTS; Preface; About the Editors; Characterization of Minerals, Metals, and Materials 2013; Characterization of Ferrous Metals; Application of Thermoelectric Power Technique to Study the Static Strain Ageing of Heavily Cold Drawn Steel; Analysis of the Welded 100-Meter Heavy Rails for Passenger Dedicated Lines Being Broken during the Straightening Process; Effect of Continuous Cooling Rate on Microstructural Transformation of 60Si2CrVAT Spring Steel Effect of Centrifugal and Gravity Casting Technique over Metallographic and Mechanical Properties of Spheroidal Graphite IronInclusions Removal by Gas Bubbles in Steel Continuous Casting Tundish; Strength and Ductility of Ultrafine Grained 304SS Prepared by Accumulative Rolling and Annealing; Characterization of Nonferrous Metal and Alloys; Characterization of AA5754 Alloy for Identification of Barlat's YLD2000-2d Yield Criterion; Characterization Technologies; Automated

Quantification of SiC-Particles in Solidified A356 Aluminum Using Imagepro® Plus 7.0
Quantitative X-Ray Fluorescence Determination of Elemental Composition of Micro-Constituents Smaller than the Electron Probe VolumeThree-Dimensional Duplex Morphology of MnS-AlN and Thermodynamic Analysis; Characterization of Inorganic Materials; Dissolution Mechanism of Lime in FeOx-SiO2-V2O3-TiO2 Slag; Estimation of Slag in Ferrochromium; Improved Thermal Shock Resistance of Shaped Alumina-Chromia Products; Solidification Characteristics of Fe-Mn Alloy during Near-Rapid Solidification; The Effect of Work-Hardening and Heat Treatment of Mild-Carbon Steel on Cyclic Deformation Behavior
Green MaterialsStudy on the Hydraulic Ash-Slag Cementitious Composites (HA-SC) Solidification of Dredged Sludge; Evaluation of Sisal Fibers Components by Infrared Spectroscopy; Tensile Behavior of Epoxy Composites Reinforced with Continuous and Thinner Buriti Fibers; Influence of the Red Mud Content in Mechanical Properties of Natural Fiber-Reinforced Polymer Composites; Flexural Mechanical Characterization of Polyester Composites Reinforced with Continuous Banana Fibers; Characterization for Environmental Applications; LaCoO3: The Efficient Catalyst to Purify Pollutant Gases
Characterization of the Clay Soil of the Neighborhood Codin, Located in Campos (RJ), to Produce Soil-Cement BlocksStudy of Mortars Used in the Projection Mechanized; Study on Treatment of Coking Wastewater by Three-Dimensional Fluid Bed Electrode Reactor Combined with Fenton Process; Study on Correlation between COD and TOC of Industrial Wastewater; Photocatalytic Activity of TiO2-Doped Diopside; Characterization of Advanced Materials; A Comparison between the Properties of SnO2:F Thin Films Prepared by Using Different Doping Compounds: HF and NH4F
Ab-Initio Calculations of the Optical Properties of -NbN Single Crystal

Sommario/riassunto

This collection of proceedings from one of the most popular TMS symposia explores the current progress in the characterization of materials. Addressing technologies, applications, and innovative research, these papers cover definations of ferrous and nonferrous metals and alloys, minerals, advanced and soft materials, and inorganic materials. Extraction and environmental applications, as well as surface, joint, and processing of metals. This is a valuable reference for scientists and engineers working with materials in the minerals, metals, and materials industry.