1. Record Nr. UNINA9910789105103321 Advanced materials and processing technologies: IFMPT 2014: **Titolo** selected, peer reviewed papers from the 2014 International Forum on Materials Processing Technology (IFMPT 2014), January 18-19, 2014, Guangzhou, China / / edited by Seung-Bok Choi and Yun-Hae Kim Zurich, Switzerland:,: TTP,, 2014 Pubbl/distr/stampa ©2014 **ISBN** 3-03826-423-7 Descrizione fisica 1 online resource (835 p.) Collana Advanced Materials Research, , 1662-8985;; Volume 900 Disciplina 670.42 Soggetti Manufacturing processes Production engineering Materials Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Includes bibliographical references at the end of each chapters and Nota di bibliografia indexes. Nota di contenuto Advanced Materials and Processing Technologies: IFMPT 2014; Preface and Conference Organization; Table of Contents; Chapter 1: Polymers, Rubber and Elastomers: Characterization of Thermal Reversible Cross-Linking Agents for Flexible Poly(vinyl chloride); Compressive Behavior of a Polyurea Elastomer; Progress in Development of Catalyst Systems for Coordinated Polymerization of Olefins; Study of Molecular Structure of Water-Soluble Phenolic Resin with Different Molecular Weight by Infrared Spectrum Synthesis of a Surfactant Hexadecyl Methyl Dihydroxyethyl Ammonium Bromide by a Non-Solvent Synthesis MethodStudy on Solvent Resistance of Ternary Plastic Alloys of PEEK/PEI/PES; Chapter 2: Metals and Alloys; A Novel Iron Oxidation Process in Zinc Leaching Solution by Ozone; Corrosion Behaviors of Mg-7Gd-5Y-1Nd-0.5Zr Alloys in CO2 Atmosphere under Different Relative Humidity; Effect of Rotating Magnetic Field on Fluid Convection and Microstructure during Directional Solidification of Sn-Zn Alloy; Experiments on Effect of Red Mud-Based Slag on Distribution of Sulfur in Liquid Iron

Influence of Niobium or Molybdenum in Titanium Alloy for Permanent

Implant ApplicationInner Connection of Bainite and Pearlite
Transformation in Steels; Research on Impact Fracture and
Microstructure of 40Cr Steel under Different Tempering Conditions;
Simulation and Optimization of Flow Field in the Mold of Slab
Continuous Casting; Study on Fe-Mn-Si Shape Memory Alloy AntiLoosening Bolt; Study on the Forming Accuracy of TRIP Steel Products in
ISF; The High Temperature Oxidation Behavior of Hot-Dip Aluminized
GH169

Effect of Different Tempering Temperatures on Microstructure and Impact Property of 20CrMnTi SteelRelationship between Heat Treatments and Corrosion of Al-Si-Mg Casting Alloy; The Effect of Process Parameter on the Second Phase Particles in Al-Ti-B Master Alloys; The Modification Research of Al-Ti-B Master Alloy (Progress); A Closed Form Solution for Wave Propagation in a Rectangular Waveguide Filled with Time-Varying Media; Chapter 3: Ceramics; Effect of Sintering Temperature on Microstructure and Electrical Properties of (1-x)BCZT-xBY Lead-Free Ceramics

Fused Silica Ceramics and Composites for Radome
ApplicationsResearch Progress of Al2O3 Based and Si3N4 Based
Ceramic Tool Materials; The Influence of Sintering Atmosphere and
Reoxidation Temperature on the Electrical Properties of the Chip-Type
Ba1-xSmxTiO3 Based Ceramics; Chapter 4: Composites; Microstructure
and Mechanical Properties of Mg-Based Composites Reinforced with
TiB2 Particles; Preparation and Properties of Organosilicon-Modified
Acrylate Resin; Preparation of Functional Particles Modified Epoxy
Multilayer Composite and their Radiation Shielding Properties
The Influences of Holmium on Microstructure and Properties of In Situ
Mg2Si/Al Composites

## Sommario/riassunto

Collection of selected, peer reviewed papers from the 2014 International Forum on Materials Processing Technology (IFMPT 2014), Februar 15-16, 2014, Guangzhou, China. The 163 papers are grouped as follows: Chapter 1: Polymers, Rubber and Elastomers, Chapter 2: Metals and Alloys, Chapter 3: Ceramics, Chapter 4: Composites, Chapter 5: Micro/Nano Materials, Chapter 6: Optical/Electrical/Magnetic Materials, Chapter 7: Energy Materials and Research, Chapter 8: Biomaterials, Chapter 9: Chemical Materials and Testing Technology, Chapter 10: Films, Chapter 11: Building and Road

Materials, Construction