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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 Anti-Loosening 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