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Nota di contenuto	Advanced Structural Materials II; Table of Contents; Multiscale Approach to Texture-Microstructure Coupling; EDS Assisted Phase Differentiation in Orientation Imaging Microscopy; Microstructural Evolution of a Commercial 0.04%C Steel During Batch Annealing ; Characterization of Global and Local Textures in Hot Rolled CGO Fe3%Si ; Mechanical Properties of Ultra Clean Low C/Cr Stabilized Annealed Sheets; Determination of the Work Hardening Exponent by the Hollomon and Differential Crussard-Jaoul Analyses of Cold Drawn Ferrite-Pearlite Steels Microstructure and Self-Affine Fracture Surface Parameters in Steel Dislocation Mechanisms and Plasticity of Quasicrystals: TEM Observations in Icosahedral AlPdMn ; In Situ Deformation at 850°C of Standard and Rafted Microstructures of Nickel Base Superalloys; Compressive Mechanical Properties of Nanostructured Intermetallic Alloys Al3Ti-X (X = Mn or Fe); The Effect of Hot Rolling on Room Temperature Ductility of a NiAl Intermetallic Compound; Grain Refinement during Superplastic Deformation of Coarse-Grained Al-Mg-Cu Alloys Strain-Resistivity Behavior of a Ti-45Ni-5Cu Shape Memory Alloy during Superelastic and SATWME Cycling Micro and Macromechanical

Study of Stress-Induced Martensitic Transformation in a Cu-Al-Be Polycrystalline Shape Memory Alloy; Thermal Stability, Structure and Mechanical Properties of TiSiN Coatings Prepared by Reactive DC Magnetron Co-Sputtering; Joining of Silicon Nitride to Metal (Mo and Ti) Using a Cu-Foil Interlayer ; Properties of AlN-Based Magnesium-Matrix Composites Produced by Pressureless Infiltration
High Temperature Chemical Interaction Between SSiC Substrates and Ag-Cu Based Liquid Alloys in VacuoHigh Temperature Chemical Interaction Between SiO2 Substrates and Ag-Cu Based Liquid Alloys in Vacuo; Synthesis of Al2O3-Ni3Al Cermets by Room-Temperature Ball Milling of Al, Ni and Al2O3 Mixtures; High Temperature Oxidation of Cr-ZrO2-Al2O3 Composite Fabricated by Mechanical Alloying and Spark Plasma Sintering; The Transformation of Co-Rich Alloys Produced by Mechanical Alloying; Nanocrystalline Intermetallic Mg2Ni Produced in a Batch Scale Mill
Use of Newton Thermal Analysis for the Prediction of the Amount of Micro constituents Formed during Solidification Newton Thermal Analysis of Gray and Nodular Eutectic Cast Iron; Effect of Titanium and Strontium Addition on the Fluidity of A319 and A356 Aluminum Alloys; Microstructural and Mechanical Characterization of Nitinol GTAW and FB Welds of Titanium; Macro-Micro Modeling and Simulation of Solidification Kinetics of Pb-Sn Alloys; Time-Dependent Rheological Behavior of Liquid Crystalline Dispersions
Preparation of Size Controlled Nanometric Spheres of Colloidal Silica for Synthetic Opal Manufacture

Sommario/riassunto

This collection comprises invited and contributed papers which were presented at the Advanced Structural Materials Symposium held in Cancun, Mexico during the Annual Conference of the Mexican Academy of Materials Science. The proceedings included overviews and recent investigations related to advanced structural metallic, ceramic and composite materials. The topics included innovative processing, phase transformations, mechanical properties and the relationships between processing, microstructure and mechanical behavior. These proceedings will therefore be of great interest to anyone working i