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Nota di contenuto	Advanced Structural Materials III; Table of Contents; High-Entropy Alloys - A New Era of Exploitation; Synthesis of Si <sub>3</sub> N <sub>4</sub> from Na <sub>2</sub> SiF <sub>6</sub> as a Solid Precursor: Thermodynamic Study; Thixotropic Behaviour of a Cu - Eutectic Sn-Pb Slurry; Effect of Plastic Deformation on the Isothermal FCC/HCP Phase Transformation during Aging of Co-27Cr-5Mo-0.05C Alloy; Effect of Fast Annealing on Microstructure and Mechanical Properties of Non-Oriented Al-Si Low C Electrical Steels; In Vitro Bioactivity Assessment of Ceramics in the SiO <sub>2</sub> -CaO-MgO System; Self-Affine Quasi-Static Fracture of Soda-Lime Glass Thermal Analysis and Microstructure Comparison Between A356 Aluminum Alloy and A356/15%vol. SiCP Cast Composite Modified with StrontiumWC / Stainless Steel Joints Produced by Direct Diffusion Bonding Using a Ni-Foil Interlayer; Development of Instrumented Composite Cylinders; Composite Coatings Elaborated by Plasma Spraying of Dry Coated Particles ; Prediction of Microstructure and Distribution of Solute in Al-Zn-Mg Non-Dilute Alloys; Austenite-Ferrite Transformation in Hot Rolled Mn-Cr-Mo Dual Phase Steels; Austenite-

Ferrite Transformation in Non-Oriented Electrical Steels  
Self-Affine Analysis of Fracture Surfaces of an Aluminum Alloy Using Fractographic Techniques  
The Role of Ti Inoculation of Al-Zn-Si Coating Alloys on the Formation of Intermetallic Compounds by Interaction with Solid Steel; Effect of Deformation Temperature on the Hot Ductility of Non-Oriented Electrical Steels; Synthesis of  $\text{Si}_3\text{N}_4$  from  $\text{Na}_2\text{SiF}_6$  as a Solid Precursor: Microstructural Evolution; Microstructure and Mechanical Properties of Al/SiCp Composites with Multimodal Size Distribution of Reinforcements; Sintering + HIP of Ultrafine WC-Co Hardmetals  
Biomimetic Coating on Zirconia Composites Induced by Chemical Treatment  
Microstructural Mechanisms of Fatigue Failure in PA66 Fibers; Degradation of Al/SiCp Composites Processed with Fly Ash via Reactive Infiltration; On the Fluid Flow and Mixing Phenomena in Ladles Equipped with Impeller and Gas Purging for Degassing of Al-Based Alloys; Keywords Index; Authors Index

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#### Sommario/riassunto

This useful collection presents fascinating reviews, and reports of recent investigations, related to advanced metallic, ceramic and composite structural materials. The topics covered include innovative processing techniques, phase transformations, mechanical properties and explorations of the relationship between processing methods, microstructure and mechanical behavior. The book will therefore be of great interest to anyone working in the preparation or use of advanced materials.

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