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Nota di contenuto	Cover; Title Page; Copyright Page; TABLE OF CONTENTS; AEROSPACE, SPACE AND LAND VEHICLE APPLICATIONS; Metal Matrix Composites for Space Systems: Current Uses and Future Opportunities; Evaluation of Al/SiC Composites for the AAAR Road Wheel Wear Ring; Development of a New Discontinuously Reinforced Aluminum for Space Applications; Yes - This is Rocket Science: MMCs for Liquid Rocket Engines; PROCESSING OF METAL-MATRIX COMPOSITES I; Process Simulation of Solidification of Aluminum Reinforced with Thermally Managed Graphite Rod Interfacial Aspects to Produce Particulate Reinforced Metal Matrix Composites Dynamic Simulation of the Movement of a Ceramic Particle in Front of a Solidifying Interface; Tensile and Fatigue Properties of Permanent Mold Cast A359-SiCp Aluminum Alloys; FATIGUE, FRACTURE AND CREEP OF METAL-MATRIX COMPOSITES I; Creep Behavior of Powder Metallurgy SiC-Al Composites and Their Al Matrices; The Effect of Zirconia Particulate Reinforcements on Superalloy Creep Behavior; High Cycle Fatigue Strength Improvement of Titanium Matrix Composites by Residual Stress Modification Improving the Tensile Response of 6061/SiC/25p Discontinuously-Reinforced Aluminum Via Modification of Reinforcement Particle Morphology Tensile Deformation and Fracture Characteristics of 2009

Aluminum Alloy Metal Matrix Composite; Isothermal Solidification and Metastable Phases Equilibria in Al-21.5%Si Alloy; PROCESSING OF METAL-MATRIX COMPOSITES II; In-Situ Processing of Al Alloy Matrix Composites; In-Situ Fabrication of Fiber Reinforced Metal Matrix Composites; Gas Atomization and Spray Deposition of Aluminum Alloy Matrix Pre-Composite Powders
Interfacial Reactions at Elevated Temperatures in New Low Cost Al/SiC Metal Matrix Composite Effect of Pulse Parameters on the Molten Pool Behavior of SiCp/6061 Composite in Impulsed Laser Welding;
STRENGTHENING MECHANISMS; Finite Element Modeling of Discontinuously Reinforced Aluminum in 2D and 3D; Mechanical Properties of High Strength 7034-T6 Aluminum Alloy; FATIGUE, FRACTURE AND CREEP OF METAL-MATRIX COMPOSITES II; Investigation of the Strain Distribution in an Al-MMC Torsion Sample Using High Energy Synchrotron Radiation
Effect of Overloading on the Fatigue Crack Growth Behaviour of Cross-Ply Ti-6Al-4V/SCS-6 Laminate The High Cycle Fatigue and Final Fracture Behavior of SiC Particulate Reinforced 7034 Aluminum Alloy Metal Matrix Composite; AUTHOR INDEX; SUBJECT INDEX

Sommario/riassunto

This book will include papers on recent research carried out in the field of metal-matrix composites (MMCs). Processing, microstructure, and mechanical properties of MMCs and unreinforced matrix alloys will be covered with a focus on aluminum, titanium, nickel, and copper MMCs. Those involved in the research of MMCs and unreinforced alloys, particularly in aerospace, space, and automotive materials research, will find this volume indispensable. From Materials Science & Technology 2003 to be held in Chicago, Illinois,
