1. Record Nr. UNINA9910790312503321 Advances in metal matrix composites: special topic volume with invited **Titolo** peer reviewed papers only // edited by Lorella Ceschini and Roberto Montanari Stafa-Zurich, Switzerland: ,: Trans Tech Publications, Ltd., , [2011] Pubbl/distr/stampa ©2011 **ISBN** 1-62870-896-4 3-03813-461-9 Descrizione fisica 1 online resource (159 p.) Materials science forum, , 0255-5476; ; volume 678 Collana Altri autori (Persone) CeschiniLorella MontanariRoberto Disciplina 620.11 Soggetti Metallic composites Composite materials Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and indexes. Nota di contenuto Advances in Metal Matrix Composites; Table of Contents; Manufacture of Aluminum Nanocomposites: A Critical Review; Micro-Chemistry and Mechanical Behaviour of Ti6Al4V-SiCf Composite Produced by HIP for Aeronautical Applications; Simulation of the Mechanical Behaviour of Metal Matrix Composites: Dry Sliding Behaviour of Peo (Plasma Electrolytic Oxidation) Treated AA 2618/20% Al2O3p Composite; Strengthening Evaluation in a Composite Mg-RE Alloy Using TEM; Friction Welding of Particle Reinforced Aluminium Based Composites: Hot Drilling of Aluminium Matrix Composite Effect of Mechanical Mould Vibration on Solidification Behaviour and Microstructure of A360-SiCp Metal-Matrix Composites Processing of Lightweight Metal Matrix Composites via In Situ Gas/Liquid Reaction; Effects of Reinforcement Parameters on Fatigue Strength of Aluminium-Based Particulate-Reinforced Composites: Production and Characterization of Aluminum Iron Powder Composites with Ferromagnetic Properties; Comparison between Roll Diffusion Bonding and Hot Isostatic Pressing Production Processes of Ti6Al4V-SiCf Metal Matrix Composites; Keywords Index; Authors Index

Sommario/riassunto

Metal-matrix composites (MMCs) have been the subject of scientific investigation and applied research for some three decades, but only in the past few years have these materials become realistic candidates for engineering components such as electronic heat sinks, automotive drive shafts, ground-vehicle brake rotors, fighter-aircraft fins and jetengine components. This special issue comprises 12 selected peer-reviewed papers covering various aspects of MMCs and highlights the most recent findings in this field. The papers focus mainly on light metal matrix composites, based upon Al, Mg and Ti