1. Record Nr. UNINA9910464209103321

Titolo	Metal matrix composites : materials, manufacturing and engineering / / edited by J. Paulo Davim ; contributors, Igor S. Batraev [and seventeen others]
Pubbl/distr/stampa	Berlin, [Germany] : , : De Gruyter, , 2014 ©2014
ISBN	1-68015-768-X 3-11-038201-6 3-11-031544-0
Descrizione fisica	1 online resource (216 p.)
Collana	Advanced Composites ; ; 3
Disciplina	620.1/6
Soggetti	Metallic composites Electronic books.
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 at the end of each chapters and index.
Nota di contenuto	Front matter -- Preface -- Contents -- List of contributing authors -- 1 Metal matrix composites for thermal management / Molina Jordá, José Miguel -- 2 Recent research and developments on the mechanical behavior of CNT-reinforced metal matrix composites / Silvestre, Nuno -- 3 Novel preparation and mechanical properties of in situ synthesized (TiB+La2O3)/TiNbTaZr composites / Li, Yue / Cheng, Xiaoxing / Wang, Liqiang / Lu, Weijie / Qin, Jining / Zhang, Fan / Zhang, Di -- 4 Microstructure formation of particle-reinforced metal matrix composite coatings produced by thermal spraying / Dudina, Dina V. / Batraev, Igor S. / Ulianitsky, Vladimir Yu. -- 5 Fabrication of Al-metal matrix composites by liquid stirring technique / Manna, Alakesh -- 6 Material removal processes for metal matrix composites / Singh, Inderdeep / Chaitanya, Saurabh / Kumar, Ravinder -- 7 An investigation into machining Al/SiC metal matrix composites / Krishnaraj, Vijayan -- 8 Application of response surface method and desirability function for the optimization of machining parameters of hybrid metal matrix (Al/SiC/Al2O3) composites / Palanikumar, Kayaroganam -- Index

Sommario/riassunto

Metal Matrix Composites (MMC's) have found an increased use in various industries due to their special mechanical and physical properties. They are a composite material with at least two constituent parts, one being a metal and are made by dispersing a reinforcing material into a metal matrix. The markets are: telecommunications, automotive, power semiconductor, opto-electronics, military and aerospace, heavy transportation, space systems and satellites, medical, and industrial lighting. Applications within these markets include microwave, micro-electronic packaging, laser diode, HB-LED's,