

1. Record Nr.	UNINA9910790313103321
Titolo	Trends in composite materials and their design [[electronic resource] /] / edited by Mohamed A. Taha, Ahmed M. El-Sabbagh and Iman M. Taha
Pubbl/distr/stampa	Stafa-Zurich, Switzerland ; ; Enfield, N.H., : Trans Tech Pub., c2010
ISBN	1-62870-894-8 3-03813-363-9
Descrizione fisica	1 online resource (285 p.)
Collana	Key engineering materials, , 1013-9826 ; ; v. 425
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Disciplina	620.118
Soggetti	Composite materials Composite materials - Design
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Special topic volume with invited peer reviewed papers only"--T.p.
Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	Composite design and technology / Lena Marks and Gerhard Ziegmann -- Numerical optimization of the structure of fiber-reinforced composites / Bernhard Wielage, Tobias Muller, Daisy Weber, Thomas Maeder -- Modeling of fiber jamming phenomena during processing of fiber reinforced composite parts / Alejandro Londono-Hurtado, Tim A. Osswald -- Performance of non-crimp fabric composites in shear / Roberts Joffe -- Design, development and testing of rubber nanocomposites / A. Saritha, Joseph Kuruvilla, Thomas Sabu -- Thermo-mechanical monitoring of composite materials during the pyrolysis of C/C composites / Bernhard Wielage, Daisy Weber, Tobias Muller, Heike Steger -- Recent advances in green composites / George Gejo, Joseph Kuruvilla, Abderrahim Boudenne, Thomas Sabu -- Potential of sisal reinforced biodegradable polylactic acid and polyvinyl alcohol composites / Iman M. Taha, Gerhard Ziegmann -- Vibration damping behavior of fiber reinforced composites : a review / Ayman M. Kamal, Iman M. Taha -- Confinement of the concrete structures by embedded composite grids / Kamal A. Tahar, Alaa Chateauneuf -- Manufacturing of light metal matrix composites by combined thermal spray and semisolid forming processes : summary of the current state

of technology / Martin Wenzelburger, Martin Silber, Rainer Gadow -- Magnesium and aluminium carbon nanotube composites / C.S. Goh, M. Gupta, A.E.W. Jarfors, M.J. Tan, J. Wei -- Anelastic phenomena at the fibre-matrix interface of the Ti6Al4V-SiCf composite / P. Deodati, R. Donnini, Saulius Kaciulis, A. Mezzi, Roberto Montanari, C. Testani and N. Ucciardello -- Press joining rolling process for hybrid systems / Adele Carrado, Olga Sokolova, Gerhard Ziegmann, and Heinz Palkowski.

Sommario/riassunto

Composite materials are increasingly finding use in diverse applications requiring a wide range of property and performance requirements. Low density, high specific strength and stiffness are the main features that make composite materials most suitable for structural applications. The field covers the concurrent manipulation of the material's composition and of the internal architecture of the composite in order to obtain the desired properties. The ability to tailor composite materials precisely is of great importance in structural applications. A systematic approach to the optimum tailoring
