Record Nr. UNINA9910830043203321 Ceramic matrix composites: fiber reinforced ceramics and their **Titolo** applications / / edited by Walter Krenkel Pubbl/distr/stampa Weinheim, [Germany]:,: Wiley-VCH Verlag GmbH & Co. KGaA,, 2008 ©2008 **ISBN** 1-281-94686-9 9786611946869 3-527-62241-1 3-527-62240-3 Descrizione fisica 1 online resource (442 p.) Disciplina 620.1/4 620.14 Soggetti Ceramic-matrix composites Fiber-reinforced ceramics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references at the end of each chapters and Nota di bibliografia index. Nota di contenuto Ceramic Matrix Composites; Foreword; Contents; Preface; List of Contributors: 1 Fibers for Ceramic Matrix Composites: 2 Textile Reinforcement Structures; 3 Interfaces and Interphases; 4 Carbon/Carbons and Their Industrial Applications; 5 Melt Infiltration Process: 6 Chemical Vapor Infiltration Processes for Ceramic Matrix Composites: Manufacturing, Properties, Applications; 7 The PIPprocess: Precursor Properties and Applications; 8 Oxide/Oxide Composites with Fiber Coatings; 9 All-Oxide Ceramic Matrix Composites with Porous Matrices 10 Microstructural Modeling and Thermomechanical Properties 11 Nondestructive Testing Techniques for CMC Materials; 12 Machining Aspects for the Drilling of C/C-SiC Materials; 13 Advanced Joining and Integration Technologies for Ceramic Matrix Composite Systems; 14 CMC Materials for Space and Aeronautical Applications: 15 CMC for Nuclear Applications; 16 CMCs for Friction Applications; Index Covering an important material class for modern applications in the Sommario/riassunto

aerospace, automotive, energy production and creation sectors, this handbook and reference contains comprehensive data tables and field reports on successfully developed prototypes. The editor and authors are internationally renowned experts from NASA, EADS, DLR, Porsche, MT Aerospace, as well as universities and institutions in the USA, Europe and Japan, and they provide here a comprehensive overview of current R & D with an application-oriented emphasis.