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Titolo	High performance structural material : selected, peer reviewed papers from the Chinese Materials Congress 2014 (CMC 2014), July 4-7, 2014, Chengdu, China / / edited by Yafang Han, Qiang Zhang and Bin Jiang
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Nota di bibliografia	Includes bibliographical references at the end of each chapters and indexes.
Nota di contenuto	High Performance Structural Material; Preface; Table of Contents; Symposium L: Metal Matrix and Ceramic Matrix Composites; Surface Pretreatment and Fabrication Technology of Woven Carbon Fiber Cloth Aluminium Alloy Matrix Composite; Improvement of Anti-Hydrolytic Property of AlN Powder Modified by the Rare-Earth Salts; Effect of the Ball Milling on the Microstructure and Mechanical Properties of AlN/Cu Composite; Effect of Sr and La on the In Situ A356-TiB <sub>2</sub> Composite Fabricated via Remelting and Diluting Approach Microstructures and Mechanical Properties of Three-Dimensional Braided Carbon Fiber Reinforced Mullite Composites with Different Sols as Raw MaterialsInfluences of Thermal Molding Process on the Flexural Properties of SiC/SiC Composites with a New Precursor Polymer; Microstructure, Mechanical and Dielectric Properties of Si <sub>3</sub> N <sub>4</sub> -BN Composites with Different Porosities; Preparation of Al <sub>2</sub> O <sub>3</sub> /Al-Si Composites by In Situ Reaction of Fe <sub>2</sub> O <sub>3</sub> +MnO <sub>2</sub> /Al System; Microstructure and Tribological Properties of Ni-Base Coatings under Different Lubrication Conditions Microstructure and Mechanical Properties of BN Nanotubes Reinforced Si <sub>3</sub> N <sub>4</sub> Porous CompositesEffect of Infiltration Temperature on the Composition and Mechanical Property of RMI C/C-SiC Composite; Influences of High Temperature Treatment of C/C on the Mechanical

Properties of C/C-SiC Composites; Effect of BN Interphase Coating and PIP Cycles on the Mechanical Properties of VSI SiC/SiC Composites; Influence of Yb<sub>2</sub>O<sub>3</sub> and Y<sub>2</sub>O<sub>3</sub> on the Mechanical Properties of Porous Si<sub>3</sub>N<sub>4</sub> Ceramics; Effect of Sample Size upon Quasi-Static Compressive Loading of Ti<sub>48</sub>Zr<sub>20</sub>Cu<sub>5</sub>Nb<sub>12</sub>Be<sub>15</sub> Amorphous Composites Effect of Ammonium Polyacrylate and Pre-Oxidation on Rheological Properties of Si<sub>3</sub>N<sub>4</sub> Slurries Double Negative Property in Co/YIG Prepared by Low Temperature Impregnation Process; Tunable Electromagnetic Properties of Yttrium Iron Garnet Ceramics; Influence of Hot Extrusion on Microstructure and Hardness of SiC Particle Reinforced Al-Zn-Mg-Cu Alloy Matrix Composite; Preparation of Cf/HfC Composite by Reactive Melt Infiltration Using Hf-Based Alloy; Effect of Curing Methods on the Mechanical Property of SiC Fiber Prepared via Hydrogenation Preparation of Diamond Coatings on Alumina by Hot Filament Chemical Vapor Deposition Anomalous Strain Rate Sensitivity of Nanocrystalline Ni Induced by Rolling Deformation; Microstructure and Mechanical Properties of Laminated Buckypaper/SiC Composite; Flexural Properties of T700 2D Cf/SiC Composites via Precursor Infiltration and Pyrolysis; Influence of Ethyl Acetoacetate on the Structure and Thermal Stability of Alumina Aerogel; Influence of Composition and Microstructure on the Mechanical Properties of SiC Ceramic Fibers Interfacial Wettability and Thermal Conductivity of Diamond/Al Based Composites with Ti and B Additions

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#### Sommario/riassunto

Collection of selected, peer reviewed papers from the Chinese Materials Congress 2014 (CMC 2014), July 4-7, 2014, Chengdu, China. The 145 papers are grouped as follows: Symposium L: Metal Matrix and Ceramic Matrix Composites; Symposium M: High Temperature/Ultra-High Temperature Structural Materials, Surface and Coating Engineering; Symposium N: High Entropy Alloys and Special High Temperature Material; Symposium O: Advanced Magnesium Alloys and Application; Symposium P: Superalloys; Symposium Q: Powder Metallurgy; Symposium R: Steel

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