

1. Record Nr.	UNINA9910818662103321
Titolo	Ceramics and composites processing methods / / edited by Narottam P. Bansal, Aldo R. Boccaccini
Pubbl/distr/stampa	Hoboken, N.J., : Wiley [Westerville, Ohio], : American Ceramic Society, c2012
ISBN	9786613650955 9781280674020 1280674024 9781118176658 1118176650 9781118176665 1118176669 9781118176603 111817660X
Edizione	[1st ed.]
Descrizione fisica	1 online resource (597 p.)
Classificazione	TEC021000
Altri autori (Persone)	BansalNarottam P BoccacciniA. R (Aldo R.)
Disciplina	666
Soggetti	Ceramic materials 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 index.
Nota di contenuto	CERAMICS AND COMPOSITES PROCESSING METHODS; CONTENTS; PREFACE; CONTRIBUTORS; PART I: DENSIFICATION; 1: SINTERING: FUNDAMENTALS AND PRACTICE; 2: THE ROLE OF THE ELECTRIC CURRENT AND FIELD DURING PULSED ELECTRIC CURRENT SINTERING; 3: VISCOUS-PHASE SILICATE PROCESSING; PART II: CHEMICAL METHODS; 4: COLLOIDAL METHODS; 5: PROCESSING AND APPLICATIONS OF SOL-GEL GLASS; 6: GELCASTING OF CERAMIC BODIES; 7: POLYMER PROCESSING OF CERAMICS; 8: CHEMICAL VAPOR DEPOSITION OF STRUCTURAL CERAMICS AND COMPOSITES; 9: CVI PROCESSING OF CERAMIC MATRIX COMPOSITES 10: REACTIVE MELT-INFILTRATION PROCESSING OF FIBER-REINFORCED

CERAMIC MATRIX COMPOSITES 11: COMBUSTION SYNTHESIS: AN UPDATE; PART III: PHYSICAL METHODS; 12: DIRECTIONAL SOLIDIFICATION; 13: SOLID FREE-FORM FABRICATION OF 3-D CERAMIC STRUCTURES; 14: MICROWAVE PROCESSING OF CERAMIC AND CERAMIC MATRIX COMPOSITES; 15: ELECTROPHORETIC DEPOSITION; 16: PROCESSING OF CERAMICS BY PLASMA SPRAYING; INDEX

Sommario/riassunto

Examines the latest processing and fabrication methods. There is increasing interest in the application of advanced ceramic materials in diverse areas such as transportation, energy, environmental protection and remediation, communications, health, and aerospace. This book guides readers through a broad selection of key processing techniques for ceramics and their composites, enabling them to manufacture ceramic products and components with the properties needed for various industrial applications. With chapters contributed by internationally recognized experts in the field of