

1. Record Nr.	UNINA9910143641103321
Titolo	Advances in joining of ceramics [[electronic resource]] : proceedings of the Joining of Ceramics Symposium : held at the 104th Annual Meeting of the American Ceramic Society, April 28-May 1, 2002 in St. Louis, Missouri // edited by, Charles A. Lewinsohn, Mrityunjay Singh, Ronald Loehman
Pubbl/distr/stampa	Westerville, Ohio, : American Ceramic Society, c2003
ISBN	1-280-67399-0 9786613650924 1-118-40580-3 1-118-40590-0 0-585-49974-8
Descrizione fisica	1 online resource (234 p.)
Collana	Ceramic transactions, , 1042-1122 ; ; v. 138
Altri autori (Persone)	LewinsohnCharles A SinghM (Mrityunjay) LoehmanRonald E
Disciplina	620.14 666
Soggetti	Ceramic materials - Bonding Ceramic materials 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 and index.
Nota di contenuto	Advances in Joining of Ceramics; Contents; Preface; Designing Joints in Ceramics; Selection and Function of Interlayer Materials in Ceramic/Ceramic Joining; Numerical Modeling of Solid State Bonding Based on Fundamental Bonding Mechanisms: For Bonding between Dissimilar Materials; Designing Joints with Graded Layers; Engineering High-Quality Ceramic-Metal Bonds; Brazing; Particulate Loading of High Temperature Brazes for Joining Engineering Ceramics; Development of a Copper Oxide-Silver Braze for Ceramic Joining; Biomedical Applications A Review of Recent Investigations on Zirconia Joining for Biomedical ApplicationsJoining Zirconia and Alumina Bioceramics; Graded Coatings

for Metallic Implant Alloys; High Temperature Applications; Thermal Cycling of Advanced Compressive Seal for Solid Oxide Fuel Cells; Brazing a Mixed Ionic/Electronic Conductor to an Oxidation Resistant Metal; Brazeless Approaches to Joining Silicon Carbide-Based Ceramics for High Temperature Applications; Processing Issues in Fabricating Ceramic Micro-Heat Exchangers by Joining Components; Index

Sommario/riassunto

Joining remains an enabling technology in several key areas related to the use of ceramics. Development of ceramic materials for electronic, biomedical, power generation, and many other fields continues at a rapid pace. Joining of ceramics is a critical issue in the integration of ceramic components in engineering design. This book includes reviews on the state-of-the-art in ceramic joining, new joining materials and methods, and modeling joint behavior and properties.
