

1. Record Nr.	UNINA9910877504503321
Titolo	Surfaces, interfaces, and the science of ceramic joining : proceedings of the 106th Annual Meeting of the American Ceramic Society, Indianapolis, Indiana, USA (2004) // editors K. Scott Weil, Ivar E. Reimanis, Charles A. Lewinsohn
Pubbl/distr/stampa	Westerville, Ohio, : American Ceramic Society, c2005
ISBN	1-280-67544-6 9786613652379 1-118-40714-8 1-118-40713-X
Descrizione fisica	1 online resource (196 p.)
Collana	Ceramic transactions ; ; v. 158
Altri autori (Persone)	WeilK. Scott ReimanisIvar E (Ivar Edmund) LewinsohnCharles A
Disciplina	666
Soggetti	Ceramics - Surfaces Ceramic to metal bonding Interfaces (Physical sciences)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"This volume contains the proceedings of 'Surfaces, Interfaces, and the Science of Ceramic Joining,' a symposium held in Indianapolis, IN, April 18-21, 2004, as part of the 106th Annual Meeting of The American Ceramic Society"--Pref.
Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	Surfaces, Interfaces, and the Science of Ceramic Joining; Contents; Preface; Surface and Interfacial Phenomena; The Role of Interfacial Phenomena in Wetting-Bonding Relationship in Al/Ceramic Couples; Interface Structures and Diffusion Paths in SiC/Metal Couples; Photocatalytic Titania Coatings by a Low Temperature Sol-Gel Process; Effect of Surface Treatment on Chiral and Achiral SrTiO3 Surface Morphology and Metal Thin Film Growth; Surface Characterization of Low-Temperature Processed Titania Coatings Produced on Cotton Fabrics; Thermodynamics of Refractories for Black Liquor Gasification MechanicsAn Investigation of Wettability, and Microstructure in Alumina Joints Brazed with Ag-CuO-TiO2; An Engineering Test Useful in

Developing Glass Seals for Planar Solid Oxide Fuel Cells; Fracture in Nb/Al₂O₃ Particulate Composites; Practical Adhesion and Cohesion Assessments of Al₂O₃ (0.1 μm) Oxide Layer on Top of AlN Substrates by Microscratch Technique; Wetting and Mechanical Characteristics of the Reactive Air Braze for Yttria-Stabilized Zirconia (YSZ) Joining; Computational Analysis of Residual Stress for Si₃N₄-Al₂O₃ Joint Using Polytypoid Functional Gradients; Joining Si₃N₄ to an Iron Aluminide Alloy Using Soft Interlayers; Glass Sealing in Planar SOFC Stacks and Chemical Stability of Seal Interfaces; Pd-Modified Reactive Air Braze for Increased Melting Temperature; Evaluation of Gold ABA Braze for Joining High Temperature Electrochemical Device Components; TiO₂-Modified Ag-CuO Reactive Air Brazes for Improved Wettability on Mixed Ionic/Electronic Conductors; Microstructure, Melting and Wetting Properties of Pd-Ag-CuO Air Braze on Alumina; Author Index; Keyword Index

Sommario/riassunto

This proceedings offers information for those interested in the fundamental aspects of ceramic surface and interfacial phenomenon such as wetting, adhesion, chemical reactivity, and structure-property relationships, and the influence of these factors on the nature of bonding/joining of ceramic materials.
