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Titolo	Corrosion, wear, fatigue, and reliability of ceramics [[electronic resource]] : a collection of papers presented at the 32nd International Conference on Advanced Ceramics and Composites, January 27-February 1, 2008, Daytona Beach, Florida // editors, Jonathan Salem, Edwin R. Fuller ; volume editors, Tatsuki Ohji, Andrew Wereszczak
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Collana	Ceramic engineering and science proceedings ; ; v. 29, issue 3
Altri autori (Persone)	SalemJ. A <1960-> (Jonathan A.) FullerEdwin R OhjiT (Tatsuki) WereszczakAndrew
Disciplina	620.14
Soggetti	Ceramic materials - Corrosion Electronic books.
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Corrosion, Wear, Fatigue, and Reliability of Ceramics; Contents; Preface; Introduction; CORROSION; Corrosion Resistance of Ceramics in Vaporous and Boiling Sulfuric Acid; Thermocouple Interactions during Testing of Melt Infiltrated Ceramic Matrix Composites; Oxidation Resistance of Pressureless-Sintered Sic-AIN-Re2O3 Composites Obtained without Powder Bed; Characterization of the Re-oxidation Behavior of Anode-Supported SOFCs; Healing Behavior of Machining Cracks in Oxide-Based Composite Containing Sic Particles Effects of Oxidation on the Mechanical Properties of Pressureless-Sintered SiC-AIN-Y2O3 Composites Obtained without Powder BedFiber Push Out Testing Before and After Exposure: Results for an MI SiC/SiC Composite; New Ceramics Surface Reinforcing Treatment using a Combination of Crack-Healing and Electron Beam Irradiation; Effect of

Si₃N₄ on the instability of Li₂O-Containing Celsian in the BAS/Si₃N₄ Composites; FATIGUE, WEAR, AND CREEP; Rolling Contact Fatigue Properties and Fracture Resistance for Silicon Nitride Ceramics with Various Microstructures; Fretting Fatigue of Engineering Ceramics Investigation into Cyclic Frequency Effects on Fatigue Behavior of an Oxide/Oxide Composite Friction and Wear Behavior of AIBC Composites; Creep of Silicon Nitride Observed In Situ with Neutron Diffraction; Hydrothermal Oxidation of Silicon Carbide and Its Bearing on Wet Wear Mechanisms; RELIABILITY, NDE, AND FRACTOGRAPHY; Probabilistic Design Optimization and Reliability Assessment of High Temperature Thermoelectric Devices; Development of a New Computational Method for Solving Inhomogeneous and Ultra Large Scale Model Optical Methods for Nondestructive Evaluation of Subsurface Flaws in Silicon Nitride Ceramics Fractographic Analysis of Miniature Theta Specimens; Author Index

Sommario/riassunto

This volume provides a one-stop resource, compiling current research on the behavior and reliability of ceramic macro and micro scale systems. It is a collection of papers from The American Ceramic Society's 32nd International Conference on Advanced Ceramics and Composites, January 27-February 1, 2008. Topics include Design and Testing Challenges for Ceramic Joints; Structural Design, Testing and Life Prediction of Monolithic and Composite Components; Mechanical Behavior, Design, and Reliability of Small Scale Systems; Environmental Effects on Mechanical Properties; and more. This is a valuable

2. Record Nr.	UNINA9910800189403321
Autore	Zhang Hongyan <1962->
Titolo	Resistance welding : fundamentals and applications // Hongyan Zhang and Jacek Senkara
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Nota di contenuto	Front Cover; Contents; Preface; Authors; Chapter 1 - Welding Metallurgy; Chapter 2 - Electrothermal Processes of Welding; Chapter 3 - Weld Discontinuities; Chapter 4 - Mechanical Testing; Chapter 5 - Resistance Welding Process Monitoring and Control; Chapter 6 - Weld Quality and Inspection; Chapter 7 - Expulsion in Resistance Spot Welding; Chapter 8 - Influence of Mechanical Characteristics of Welding Machines; Chapter 9 - Numerical Simulation in Resistance Spot Welding; Chapter 10 - Statistical Design, Analysis, and Inference in Resistance Welding Research; Back Cover
Sommario/riassunto	""The second edition has made a great book even better. It remains a significant, practical aid to anyone interested in a better understanding of resistance welding science and it should be considered for their library.""-Welding Journal, February 2013Praise for the First Edition:"" The chapters are easy to comprehend, and the topics are presented in a 'big picture' basis. ... General concepts are the highlight. ... There are 20 to 40 references at the end of each chapter, and most of the chapters begin with a good literature, which then allows this book to be used as an introduction to welding at