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Autore	Kaur Gurbinder
Titolo	Solid Oxide Fuel Cell Components : Interfacial Compatibility of SOFC Glass Seals // by Gurbinder Kaur
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ISBN	3-319-25598-3
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (421 p.)
Disciplina	621.042
Soggetti	Renewable energy resources Engineering—Materials Renewable and Green Energy Materials Engineering
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 at the end of each chapters and index.
Nota di contenuto	Introduction to Fuel Cells -- Cell Voltages, Polarisation, and Performances -- SOFCs Technology: ITS Working and Components -- Thermodynamics, Performance and Configurations of SOFC -- Sealing Concepts: Glasses as Sealants -- Interfacial Compatibility of Glasses and Interconnects -- Mixed Alkaline/Composite Glasses and Coated Interconnects -- Interconnection of Glass Seals/Electrodes and Electrolytes -- Fuel Cell Status.
Sommario/riassunto	The only resource to focus on solving the challenges of glass seals in SOFCs Provides insight into interaction mechanisms at all the various interfaces within the fuel cell Analyzes basic concepts systematically and clearly, thoroughly explaining more complex topics through plentiful illustrations and diagrams This book examines the various interfacial reactions that take place when glass seals come into contact with components of SOFCs in reducing and oxidizing conditions. In developing an understanding of the structure and function of SOFCs, interfacial compatibility is an imperative criterion. This book addresses the technical challenges of developing sealants to avoid leakage losses at high operating temperatures, which are profoundly impactful to the efficiency of the fuel cell. This resource is important for anyone

working with or studying fuel cell design and development, and is a pivotal source of cutting-edge information for research groups actively engaged in developing hermetic and stable seals which show minimum interfacial chemical reaction with interconnect and electrolyte.
