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Nota di contenuto	Oxygen Permeation Through Mixed Conducting Perovskite Oxide Membranes Oxygen Permeation Properties of Perovskite-Related Intergrowth Oxides in the Sr-Fe-Co-O System; Fe-Doped LaGaO <sub>3</sub> -Based Perovskite Oxide as an Oxygen- Separating Membrane for CH <sub>4</sub> Partial Oxidation; Synthesis and Oxygen Permeation Properties of Sr <sub>2</sub> .7La <sub>0.3</sub> Fe <sub>2-y</sub> My O <sub>7</sub> - (M = Mn, Co and Ni); Fuel Cells; Low-Cost Manufacturing Processes for Solid Oxide Fuel Cells; Manufacturing Routes and State of the Art of the Planar Julich Anode-Supported Concept for Solid Oxide Fuel Cells Materials and Microstructures for Improved Solid Oxide Fuel Cells Pulsed Laser Deposition and DC-Sputtering of Ytria- Stabilized Zirconia for Solid Oxide Fuel Cell Applications; Microstructure-Electrical Property Relationship in Nanocrystalline CeO <sub>2</sub> Thin Films; Electrical

Measurements in Doped Zirconia-Ceria Ceramics; Effects of Dissolution and Exsolution of Ni in YSZ; Multilayered Ceramic Reactor for the Steam Reforming of Methanol into Hydrogen-Enriched Gas; SiO<sub>2</sub>-P<sub>2</sub>O<sub>5</sub>-ZrO<sub>2</sub> Sol-Gel/Nafion Composite Membranes for PEMFC  
Study of Glass/Metal Interfaces Under an Electric Field: Low Temperature/High Voltage Lithium-Ion Batteries; Olivine-Type Cathodes for Lithium Batteries; Amorphous Manganese Oxide Cathodes for Rechargeable Lithium Batteries; Synthesis and Electrochemical Properties of Spinel LiCo<sub>2</sub>O<sub>4</sub> Cathodes; Designing Structurally Stable Layered Oxide Cathodes for Lithium-Ion Batteries; Modeling and Design of Intermetallic Electrodes for Lithium Batteries; New Nanostructured Silicon and Titanium Nitride Composite Anodes for Li-Ion Batteries; Index

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Sommario/riassunto

This new volume covers the latest developments in the field of electrochemistry. It addresses a variety of topics including new materials development, materials synthesis, processing, characterization, property measurements, structure-property relationships, and device performance. A broader view of various electrochemical energy conversion devices make this book a critical read for scientists and engineers working in related fields.

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