Record Nr. UNINA9910155304403321 Advances in Medium and High Temperature Solid Oxide Fuel Cell Titolo Technology / / edited by Marta Boaro, Aricò Antonino Salvatore Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2017 Edizione [1st ed. 2017.] Descrizione fisica 1 online resource (IX, 342 p. 143 illus., 103 illus. in color.) Collana CISM International Centre for Mechanical Sciences, Courses and Lectures, , 0254-1971;; 574 Disciplina 621.312429 Soggetti Energy systems Electrochemistry Materials science **Energy Systems** Characterization and Evaluation of Materials Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references at the end of each chapters. Nota di contenuto Introduction to fuel cell basics -- Testing of electrodes, cells and short stacks -- Advances in proton conducting electrolytes for solid oxide fuel cell application -- Interconnects for solid oxide fuel cells --Catalysts and processes in solid oxide fuel cells -- Energy system analysis of SOFC systems -- SOFT modeling-DoE: regression models --Cell and stack modeling. Sommario/riassunto In this book well-known experts highlight cutting-edge research priorities and discuss the state of the art in the field of solid oxide fuel cells giving an update on specific subjects such as protonic conductors. interconnects, electrocatalytic and catalytic processes and modelling approaches. Fundamentals and advances in this field are illustrated to help young researchers address issues in the characterization of materials and in the analysis of processes, not often tackled in scholarly books.