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Nota di contenuto	Introduction -- Application of Oxyfuel Combustion Technology into Conventional Combustors -- Ion Transport Membranes (ITMs) for Oxygen Separation -- Novel Approaches for Clean Combustion in Gas Turbines.-Modeling of Combustion in Gas Turbines -- Applications of Oxygen Transport Reactors (OTRs) into Gas Turbine Combustors and Boiler Furnaces: Modeling and Optimization.
Sommario/riassunto	This book aims to be the reference book in the area of oxyfuel combustion, covering the fundamentals, design considerations and current challenges in the field. Its first part provides an overview of the greenhouse gas emission problem and the current carbon capture and sequestration technologies. The second part introduces oxy-fuel combustion technologies with emphasis on system efficiency, combustion and emission characteristics, applications and related challenges. The third part focuses on the recent developments in ion transport membranes and their performance in both oxygen separation units and oxygen transport reactors (OTRs). The fourth part presents

novel approaches for clean combustion in gas turbines and boilers. Computational modelling and optimization of combustion in gas turbine combustors and boiler furnaces are presented in the fifth part with some numerical results and detailed analyses. .