Record Nr. UNINA9910410022703321 Autore Nemitallah Medhat A Titolo Approaches for Clean Combustion in Gas Turbines / / by Medhat A. Nemitallah, Ahmed A. Abdelhafez, Mohamed A. Habib Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2020 **ISBN** 3-030-44077-X Edizione [1st ed. 2020.] Descrizione fisica 1 online resource (XI, 417 p. 255 illus., 204 illus. in color.) Collana Fluid Mechanics and Its Applications, , 0926-5112; ; 122 621.433 Disciplina Soggetti Renewable energy resources Materials science Force and energy Chemical engineering Renewable and Green Energy **Energy Materials** Industrial Chemistry/Chemical Engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Introduction -- Premixed combustion for gas turbine applications --Nota di contenuto Burner designs for clean power generation in gas turbines -- Gas turbine performance for different burner technologies -- Operability of fuel/oxidizer-flexible gas turbine combustors -- Porous-plates and hybrid membrane reactors for gas turbine applications. This book focuses on the development of novel combustion approaches Sommario/riassunto and burner designs for clean power generation in gas turbines. It shows the reader how to control the release of pollutants to the environment in an eort to reduce global warming. After an introduction to global warming issues and clean power production for gas turbine applications, subsequent chapters address premixed combustion, burner designs for clean power generation, gas turbine performance. and insights on gas turbine operability. Given its scope, the book can be used as a textbook for graduate-level courses on clean combustion. or as a reference book to accompany compact courses for mechanical

engineers and young researchers around the world. .