Record Nr. UNINA9910720060803321 Autore Rubtsov Nickolai M. Titolo Catalytic Ignition of Hydrogen and Hydrogen-Hydrocarbon Blends Over Noble Metals / / by Nickolai M. Rubtsov, Kirill Ya. Troshin, Michail I. Alymov Cham:,: Springer Nature Switzerland:,: Imprint: Springer., 2023 Pubbl/distr/stampa **ISBN** 9783031284168 9783031284151 Edizione [1st ed. 2023.] Descrizione fisica 1 online resource (230 pages) Collana Heat and Mass Transfer, , 1860-4854 Disciplina 541.361 Soggetti Materials Catalysis Force and energy Materials for Energy and Catalysis Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Nota di contenuto Chapter I. The features of hydrogen and deuterium ignition over platinum, palladium, ruthenium and rhodium -- Chapter II. Regularities of combustion of hydrogen - hydrocarbon (C1 - C6) - air and hydrocarbon - air mixtures over surfaces of noble metals -- Chapter III. Features of combustion of hydrogen - methane - air fuels over surfaces of noble metals -- Chapter IV. Features of interaction of the surfaces of noble metals with a propagating flame front. This book examines the issues on noble metal influence on gaseous Sommario/riassunto combustion. The book focuses on the new data on combustion processes having practical applications and includes fire safety issues in the use of noble metals in hydrogen recombiners for NPP, as well as in catalytically stabilized (CS) combustion technology including stimulation of combustion of hydrogen-blended hydrocarbons, synthesis of carbon nanotubes, and determination of catalytic ignition limits in noble metal-hydrogen-hydrocarbon systems to meet the

challenges of explosion safety.