1. Record Nr. UNINA9910150447803321

Autore	Rubtsov Nikolai M
Titolo	Key Factors of Combustion : From Kinetics to Gas Dynamics / / by Nikolai M. Rubtsov
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-45997-X
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XXIII, 232 p. 96 illus., 32 illus. in color.)
Collana	Springer Aerospace Technology, , 1869-1749
Disciplina	533.2
Soggetti	Thermodynamics Heat engineering Heat - Transmission Mass transfer Fluid mechanics Chemistry, Physical and theoretical Engineering Thermodynamics, Heat and Mass Transfer Engineering Fluid Dynamics Physical Chemistry
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	Nonlinear phenomena and kinetic mechanism of a gaseous branching chain process by the example of thermal decomposition of nitrogen trichloride -- Nonlinear effects in silanes oxidation and chlorination in gaseous phase: collecting a puzzle -- Electric phenomena in silanes chlorination and oxidation -- Excited intermediates in silanes combustion -- Reactions of hydro peroxide radicals in hydrogen combustion -- Flame acceleration in reactive gas flows -- Influence of hydrocarbon additives on the velocity of detonation wave and detonation limits by the example of the reaction of hydrogen oxidation.
Sommario/riassunto	This book summarizes the main advances in the mechanisms of combustion processes. It focuses on the analysis of kinetic mechanisms of gas combustion processes and experimental investigation into the interrelation of kinetics and gas dynamics in gas combustion. The book is complimentary to the one previously published, The Modes of