

1. Record Nr.	UNINA9910781424003321
Titolo	Dynamic aspects of explosion phenomena [[electronic resource] /] / edited by A.L. Kuhn ... [et al.]
Pubbl/distr/stampa	Washington, D.C., : American Institute of Aeronautics and Astronautics, Inc., 1993
ISBN	1-60086-627-1 1-60086-408-2
Descrizione fisica	1 online resource (580 p.)
Collana	Progress in astronautics and aeronautics, , 0079-6050 ; ; v. 154
Altri autori (Persone)	KuhlA. L
Soggetti	Explosions Combustion
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Technical papers from the thirteenth International Colloquium on Dynamics of Explosions and Reactive Systems, Nagoya, Japan, July 1991, and subsequently revised for this volume."
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	""Cover""; ""Title""; ""Copyright""; ""Preface""; ""Acknowledgments""; ""Table of Contents""; ""Chapter I. Gas Explosions""; ""Modeling of Turbulent Unvented Gas-Air Explosions""; ""Dynamics of Flame Propagation in Multichamber Systems""; ""Fuel and Obstacle Dependence in Premixed Transient Deflagrations""; ""Corrections to Zel'dovich's ""Spontaneous Flame"" and the Onset of Explosion via Nonuniform Preheating""; ""Numerical and Experimental Studies of Flame Propagation Through a Grid""; ""Experimental Study of Large- Scale Unconfined Fuel Spray Detonations"" ""Investigation on Blast Waves Transformation to Detonation in Two- Phase Unconfined Clouds""""Dynamics of Gas Explosions in Vented Vessels:Review and Progress""; ""Chapter II. Dust Explosions""; ""Detonation Processes in Dusty Mixtures of Different Oxygen Contents""; ""Measurements of Cellular Structure in Spray Detonation""; ""Experimental Investigations of Accelerating Flames and Transition to Detonation in Layered Grain Dust""; ""Enhancement and Generation of Detonations Using Dust Layers""; ""Detonability of Organic Dust-Air Mixtures"" ""Two-Head Detonation Structure in Cornstarch-Oxygen Mixtures""""

Detonation Wave Propagation in Combustible Mixtures with Variable Particle Density Distributions"; "Structure of Detonation Waves in a Vacuum with Propellant Particles"; "Effect of Inert Particle Evaporation on the Chemical Reaction in a Combustible Medium"; "Ignition Mechanism of Coal Suspension in Shock Waves"; "Chapter III. Vapor Explosions"; "Developments of the CULDESAC Physical Explosion Model"; "Behavior of Free-Falling Boiling Spheres with Relation to Vapor Explosion Phenomena"; "Effect of Fluid Flow Velocity on the Fragmentation Mechanism of a Hot Melt Drop"; "Implications for the Existence of Thermal Detonations from Equilibrium Hugoniot Analysis"; "Flash X-Ray Visualization of the Steam Explosion of a Molten Metal Drop"; "Onset of Boiling Liquid Expanding Vapor Explosion"; "Models of Rapid Evaporation in Nonequilibrium Mixtures of Tin and Water"; "Shock Waves by Sudden Expansion of Hot Liquid"; "Thermal Detonation in Molten Sn-Water Suspension"; "Chapter IV. Nonsteady Flows"; "Analysis of Combustion Processes in a Mobile Granular Propellant Bed"; "Unstable Wall Layers Created by Shock Reflections"; "Numerical Prediction of Mechanism on Oscillatory Instabilities in Shock-Induced Combustion"; "Influence of Nonequilibrium Processes on Gasdynamic Parameters of Nonstationary Supersonic Jets"; "Shock Waves in Self-Propagating High-Temperature Synthesis Research"; "Author Index"

---