

1. Record Nr.	UNINA9910961676803321
Titolo	Dynamics of explosions // edited by A.L. Kuhl ... [et al.]
Pubbl/distr/stampa	Washington, D.C., : American Institute of Aeronautics and Astronautics, Inc., 1988
ISBN	1-60086-588-7 1-60086-369-8
Edizione	[1st ed.]
Descrizione fisica	1 online resource (554 p.)
Collana	Progress in astronautics and aeronautics ; ; v. 114
Altri autori (Persone)	KuhlA. L
Disciplina	629.1 s 662/.2
Soggetti	Explosions Gas dynamics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Technical papers presented from the eleventh International Colloquium on Dynamics of Explosions and Reactive Systems, Warsaw, Poland, August 1987, and subsequently revised for this volume." Companion volume to: Dynamics of reactive systems.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	""Cover""; ""Title""; ""Copyright""; ""Table of Contents""; ""Preface""; ""Chapter I. Gaseous Detonations""; ""Numerical Analyses Concerning the Spatial Dynamics of an Initially Plane Gaseous ZDN Detonation""; ""Detonation Parameters for the Hydrogen-Chlorine System""; ""Hydrazine Vapor Detonations""; ""Applicability of the Inverse Method to the Determination of C-J Parameters for Gaseous Mixtures at Elevated Pressures""; ""Safe Gap Revisited""; ""Chapter II. Detonation Transition and Transmission"" ""Concentration and Temperature Nonuniformities of Combustible Mixtures as Reason for Pressure Waves Generation""""Heat Evolution Kinetics in High-Temperature Ignition of Hydrocarbon/Air or Oxygen Mixtures""; ""Fluid Dynamic Effects on the Transition to Detonation from Turbulent Flame in Unconfined Gas Mixtures""; ""Numerical Simulations of the Development and Structure of Detonations""; ""Transmission of Overdriven Plane Detonations:Critical Diameter as a Function of Cell Regularity and Size""; ""Role of an Inhibitor on the Onset of Gas Detonations in Acetylene Mixtures""

""Experimental and Theoretical Investigation of the Effective Energy in a Shock Tube""""Chapter III. Nonideal Detonations and Boundary Effects""; ""Nonideal Detonation Waves in Rough Tubes""; ""Influence of Obstacle Spacing on the Propagation of Quasidetonation""; ""Propagation of Detonation Waves in an Acoustic Absorbing Walled Tube""; ""Lateral Interaction of Detonating and Detonable Gaseous Mixtures""; ""Steady, Plane, Double-Front Detonations in Gaseous Detonable Mixtures Containing a Suspension of Aluminum Particles""; ""Chapter IV. Condensed-Phase Detonations"" ""Critical Conditions for Hot Spot Evolution in Porous Explosives"""" Mechanism of Deflagration-to-Detonation Transition in High-Porosity Explosives""; ""Effect of Graphite and Diamond Crystal Form and Size on Carbon-Phase Equilibrium and Detonation Properties of Explosives""; ""Two-Phase Steady Detonation Analysis""; ""Heterogenous Detonation Along a Wick""; ""Chapter V. Explosions""; ""Photographically Observed Waves in Detonation of Liquid Nitric Oxide""; ""Overpressures Imposed by a Blast Wave""; ""A Model of Point Explosions with Multistep Kinetics"" ""Air-Blast Cumulation in Gaseous Detonating Systems""""Steam Explosions: Major Problems and Current Status""; ""Dynamics of Explosive Interactions Between Multiple Drops of Tin and Water""; ""Chapter VI. Vapor-Cloud Explosions and Safety Applications""; ""Dispersion of Dense Gaseous Fuels Released into the Atmosphere""; ""Experimental Investigations into the Deflagration of Flat, Premixed Hydrocarbon/Air Gas Clouds""; ""Analysis of a Damage Scenario and Potential Hazards of Liquefied Gaseous Fuel Carriers in Inland Waterways"" ""Influence of Obstacles on the Rate of Pressure Rise in Closed Vessel Explosions""

Sommario/riassunto

A companion to the volume cited above, derived from the same conference. These contributions address gaseous detonations, detonation transition and transmission, nonideal detonations and boundary effects, vapor-cloud explosions and safety applications. No subject index. Acidic paper. Annotation copyright Book News, Inc. Portland, Or.
