

1. Record Nr.	UNINA9910781434503321
Titolo	Dynamics of flames and reactive systems / / editors, J.R. Bowen [et al.]
Pubbl/distr/stampa	New York, : American Institute of Aeronautics and Astronautics, c1984
ISBN	1-60086-570-4 1-60086-351-5
Descrizione fisica	1 online resource (786 pages) : illustrations
Collana	Progress in astronautics and aeronautics ; ; v. 95
Altri autori (Persone)	BowenJ. R (J. Raymond)
Disciplina	629.1 s 621.402/3
Soggetti	Flame Combustion
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"[Revised] technical papers presented from the Ninth International Colloquium on Gasdynamics of Explosions and Reactive Systems, Poitiers, France, July 1983." Companion vol. to the 9th colloquium's "Dynamics of shock waves, explosions, and detonations."
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	""Cover""; ""Title""; ""Copyright""; ""Table of Contents""; ""Preface""; ""Introduction to Modern Laminar Flame Theory""; ""Chapter I. Premixed Flames""; ""Effects of Chemical Equilibrium on the Structure and Extinction of Laminar Diffusion Flames""; ""Stretch Effects in Planar Premixed Hydrogen-Air Flames""; ""Slowly Varying Flames with Chain-Branching/Chain-Breaking Kinetics""; ""Effect of Dissociation on the Near-Stoichiometric Burning of Non-Dilute Mixtures""; ""The Feedback of a Flame Front on Turbulent Flows""; ""Flame Front Stability with General Intermolecular Interaction Potential"" ""Stability Limits and Critical Size of Structures in Premixed Flames"" ""Non-steady Gasdynamic Effects in the Induction Domain Behind a Strong Shock Wave""; ""Structure of Premixed Laminar Methanol-Air Flames: Experimental and Computational Results""; ""Burning Velocities of Ethanol-Air and Ethanol-Water-Air Mixtures""; ""Computer Modelling Study of Acetylene-Oxygen Ignition and Flames Using a Truncated Reaction Mechanism""; ""Prediction of Laminar Flame Properties of Propane-Air Mixtures""; ""Homogeneity and Propagation of Autoignited Cool and Blue Flames""

""Stability of Solid Propellant Combustion Subject to Non-planar Perturbations""; ""Chapter II. Diffusion Flames""; ""Laminar Diffusion Flames with Cylindrical Symmetry, Arbitrary Values of Diffusion Coefficients and Inlet Velocities, and Chemical Reactions in the Approach Streams""; ""Transition and Transport in the Initial Region of a Turbulent Diffusion Flame""; ""Predicted Structure of Stretched and Unstretched Methane-Air Diffusion Flames""; ""An Experimental Study of Turbulent Jet Diffusion Flames""; ""Chapter III. Turbulent Combustion""; ""On Sound Sources in Turbulent Combustion""; ""Comparisons of Experimental and Computed Length Scales and Velocities in Turbulent Combustion""; ""Flow Rate and Equivalence Ratio Influences on the Thermal Field of a Turbulent Cool Flame""; ""Turbulent Reacting Concentric Jets: Comparison Between pdf and Moment Calculations""; ""Chapter IV. Constant Volume Combustion""; ""Influence of Turbulent Motion on Spark Ignition""; ""Vibratory Combustion Triggered by a Small Cavity in the Wall of a Constant Volume Combustion Chamber""; ""Direct Measurement of the Head-on Flame Quenching Distance in Closed Chambers""; ""Chapter V. Spray Combustion""; ""Timed Ignition of Explosives and Flammables from Desensitized Solutions""; ""Comparative Study of Droplet Heating and Vaporization at High Reynolds and Péclet Numbers""; ""Comparisons of Computed and Measured Dense Spray Jets""; ""A Study of the Motion of Vaporizing Droplets in a Turbulent Flow""; ""Simulations of Two-Dimensional Fuel Droplet Flows""; ""Induction Time Measurements for Ignition of Liquid Fuel Jets in Air at High Temperatures and Pressures""; ""Spray Characteristics of Simplex Swirl Atomizers""; ""Chapter VI. Non-equilibrium Flows""; ""Flows in Laval Nozzles with a High-Temperature Diatomic Gas""

---