1. Record Nr. UNINA9910781402803321

Titolo	Rarefied gas dynamics [[electronic resource]] : physical phenomena / / edited by E.P. Muntz, D.P. Weaver, D.H. Campbell
Pubbl/distr/stampa	Washington, D.C., : American Institute of Aeronautics and Astronautics, Inc., c1989
ISBN	1-60086-591-7 1-60086-372-8
Descrizione fisica	1 online resource (533 p.)
Collana	Progress in astronautics and aeronautics ; ; v. 117
Altri autori (Persone)	MuntzE. Phillip <1934-> (Eric Phillip) WeaverD. P CampbellD. H (David H.)
Disciplina	629.1 s 629.132/3
Soggetti	Rarefied gas dynamics Kinetic theory of gases Aerodynamics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Technical papers selected from the sixteenth International Symposium on Rarefied Gas Dynamics, Pasadena, California, July 10-16, 1988, subsequently revised for this volume."
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	""Cover""; ""Title""; ""Copyright""; ""Table of Contents""; ""Preface""; ""Chapter I. Inelastic Collisions""; ""Inelastic Collision Models for Monte Carlo Simulation Computation""; ""Null Collision Monte Carlo Method: Gas Mixtures with Internal Degrees of Freedom and Chemical Reactions""; ""Nitrogen Rotation Relaxation Time Measured in Freejets""; ""Rate Constants for R-T Relaxation of N2 in Argon Supersonic Jets""; ""Rotational Relaxation of CO and CO2 in Freejets of Gas Mixtures""; ""Diffusion and Energy Transfer in Gases Containing Carbon Dioxide"" ""Freejet Expansion of Heavy Hydrocarbon Vapor""""""Chapter II. Experimental Techniques""; ""Optical Diagnostics of Low-Density Flowfields""; ""Electron Beam Flourescence Measurements of Nitric Oxide""; ""Measurements of Freejet Densities by Laser Beam Deviation""; ""Turbulence Measurement of a Low-Density Supersonic Jet with a Laser-Induced Fluorescence Method""; ""Measurement of Aerodynamic

Heat Ratesby Infrared Thermographic Technique at Rarefied Flow Conditions""; ""Experimental Investigation of CO2 and N2O Jets Using Intracavity Laser Scattering""
""High-Speed-Ratio Helium Beams: Improving Time-of-Flight Calibration and Resolution""""Velocity Distribution Function in Nozzle Beams""; ""Cryogenic Pumping Speed for a Freejet in the Scattering Regime""; ""Effectiveness of a Parallel Plate Arrangement as a Cryogenic Pumping Device""; ""Chapter III. Particle and Mixture Flows"";
""Aerodynamic Focusing of Particles and Molecules in Seeded Supersonic Jets""; ""Experimental Investigations of Aerodynamic Separation of Isotopes and Gases in a Separation Nozzle Cascade"";
""General Principles of the Inertial Gas Mixture Separation""
""Motion of a Knudsen Particle Through a Shock Wave""""Method of Characteristics Description of Brownian Motion Far from Equilibrium"";
""Chapter IV. Clusters""; ""Phase-Diagram Considerations of Cluster Formation When Using Nozzle-Beam Sources""; ""Fragmentation of Charged Clusters During Collisions of Water Clusters with Electrons and Surfaces""; ""Homogeneous Condensation in H2O - Vapor Freejets"";
""Formation of Ion Clusters in High-Speed Supersaturated CO2 Gas Flows""; ""MD-Study of Dynamic-Statistic Properties of Small Clusters"";
""Chapter V. Evaporation and Condensation""
""Angular Distributions of Molecular Flux Effusing from a Cylindrical Crucible Partially Filled with Liquid""""Numerical Studies on Evaporation and Deposition of a Rarefied Gas in a Closed Chamber""; ""Transition Regime Droplet Growth and Evaporation: An Integrodifferential Variational Approach""; ""Molecular Dynamics Studies on Condensation Process of Argon""; ""Condensation and Evaporation of a Spherical Droplet in the Near Free Molecule Regime""; ""Theoretical and Experimental Investigation of the Strong Evaporation of Solids""
""Nonlinear Analysis for Evaporation and Condensation of a Vapor-Gas Mixture Between the Two Plane Condensed Phases. Part I: Concentration of Inert Gas ~ 0(1)""