Record Nr. UNINA9910456961803321 Hypersonic flow research [[electronic resource]]: a selection of **Titolo** technical papers based mainly on a symposium of the American Rocket Society held at Massachusetts Institute of Technology / / edited by Frederick R. Riddell Pubbl/distr/stampa New York, : Academic Press, 1962 **ISBN** 1-60086-481-3 1-60086-262-4 Descrizione fisica 1 online resource (768 p.) Collana Progress in astronautics and rocketry;; v. 7 Altri autori (Persone) RiddellFrederick R Disciplina 629.13232 Soggetti Aerodynamics, Hypersonic Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Sponsored jointly by the Air Force Office of Scientific Research and the American Rocket Society. Nota di bibliografia Includes bibliographical references. ""Cover""; ""Title""; ""Copyright""; ""Hypersonics Committee""; Nota di contenuto ""Preface""; ""Contents""; ""The ARS a€? AFOSR International Hypersonics Conference: Summary and Comments"; ""A. Hypersonic Flow at Low Reynolds Number""; ""Introduction""; ""Density Behavior along the Stagnation Line of a Blunt Body in Hyperthermal Flow""; ""Second-Order Compressible Boundary Layer Theory with Application to Blunt Bodies in Hypersonic Flow""; ""Comment on above paper""; ""Rarefied Hypersonic Flow over a Sphere""; ""The Rayleigh Problem for a Dissociated Gas""; ""B. Chemical Kinetic Effects in Hypersonic Flow"" ""Introduction""""Chemical Kinetics: A General Introduction""; ""Chemical Kinetics of High Temperature Air""; ""Chemical Effects in External Hypersonic Flows""; ""Radiation at Hypersonic Speeds""; ""Radiation from the Nonequilibrium Shock Front""; ""C. Inviscid Hypersonic Flow""; ""Introduction""; ""Slender Wings at High Angles of Attack in Hypersonic Flows"": ""Newtonian Theory of Hypersonic Flow at Large Distances from Bluff Axially Symmetric Bodies""; ""Shock Layer Structure and Entropy Layers in Hypersonic Conical Flows""; ""Theory of Entropy Layers and Nose Bluntness in Hypersonic Flow""

""D. Experimental Techniques I"""Introduction""; ""Aerodynamic Testing

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""Air Arc Simulation of Hypersonic Environments"""Development of the

""Air Arc Simulation of Hypersonic Environments"""Development of the Shock Tunnel and Its Application to Hypersonic Flight""