

1. Record Nr.	UNINA9910457534703321
Titolo	Electric propulsion development [[electronic resource]] : a selection of technical papers based mainly on the American Rocket Society Electric Propulsion Conference held at Berkeley, California, March 14-16, 1962 // edited by Ernst Stuhlinger
Pubbl/distr/stampa	New York, : Academic Press, 1963
ISBN	1-60086-486-4 1-60086-267-5
Descrizione fisica	1 online resource (762 p.)
Collana	Progress in astronautics and rocketry ; ; v. 9
Altri autori (Persone)	StuhlingerErnst <1913-2008.>
Disciplina	629.4225
Soggetti	Electric rocket engines Space vehicles - Electric propulsion systems Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	""Cover""; ""Title""; ""Copyright""; ""Electric Propulsion Committee""; ""Editorial Committee""; ""Preface""; ""Contents""; ""A. Electrothermal Propulsion""; ""Objectives and Design of a 1-kw Arc-Jet Engine for Space Flight Testing""; ""Development Work on Plasma Arc Jet Engines""; ""Arc Jet Engine Performance a€? Experiment and Theory IV""; ""Arc Jet Design""; ""Materials Problems Related to the Electric Arc Jets""; ""A Chemical Arc-Jet Rocket Feasibility Study""; ""Chemical Nonequilibrium Effects in Thermal Arc Jet Propulsion"" ""Magnetically Diffused Radial Electric-Arc Air Heater Employing Water-Cooled Copper Electrodes"" ""B. Electrostatic Propulsion""; ""Field Emission Microscope Study of the Kinetics of Cesium Layers on a Tungsten Surface""; ""Experimental Evaluation of Porous Materials for Surface Ionization of Cesium and Potassium""; ""Experiments on Atom and Ion Emission From Porous Tungsten""; ""Ionization, Emission, and Collision Processes in the Cesium Ion Engine""; ""Negative Iodine Formation on Metal Hexaboride Surfaces""; ""Electron Bombardment Ion Source""; ""Electron Transfer Discharge Ion Source"" ""In-Flight Generation of Fuel for Cesium Ion Engines: The Cesium Hydride System"" ""Corrosivity and Contamination of Cesium in Ion

Propulsion"; "Analysis of Neutralization Problems Using the Ion Accelerator Computer Program"; "Neutralization of Ion Beams"; "Onboard Colloidal Particle Generator for Electrostatic Engines"; "Glycerol Droplets for Electrostatic Propulsion"; "C. Electromagnetic Propulsion"; "Plasma Thermodynamics II, Complex Equilibria in Nonideal Systems"; "Three-Fluid Nonequilibrium Plasma Accelerators (Part 1)"

"Characteristics of the Pinch Discharge in a Pulsed Plasma Accelerator""Experimental Studies of a Repetitively Fired Two-Stage Coaxial Plasma Engine"; "Plasma Propulsion by Means of a Helical Transmission Line"; "Inductive High-Field Plasma Accelerators"; "Measurements of Impulse of a Pulsed Plasma Accelerator"; "D. Space Testing and Space Missions"; "Limitations on the Space Test of a Cesium Ion Engine at Altitudes Below 1500km"; "Flight Test Concept for a Pulsed Plasma Pinch Engine"; "Payload Optimization for Power-Limited Vehicles"

"Concept for a Manned Mars Expedition With Electrically Propelled Vehicles""Nuclear Electric Spacecraft for Unmanned Planetary and Interplanetary Missions"; "A Nuclear-Electric Spacebus for Planetary Landing Missions"; "Potentialities of Air-Scooping Electrical Space Propulsion Systems"; "Contributors to Volume 9"
