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Energy conversion for space power [[electronic resource]] : a selection of technical papers based mainly on a Symposium of the American Rocket Society held at Santa Monica, California, September 27-30, 1960 // edited by Nathan W. Snyder

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Collana

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Altri autori (Persone)

SnyderNathan W

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Nota di bibliografia

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Nota di contenuto

""Cover""; ""Title""; ""Copyright""; ""Power Systems Committee"";
""Preface""; ""Contents""; ""A. Thermoelectricity""; ""Physics of Thermoelectricity""; ""Thermoelectric Generator Materials""; ""High-Temperature Semiconductors for Thermoelectric Conversion""; ""The Use of High Temperature Thermoelectric Materials(Silicides) for Power Generation in Space""; ""Irradiation Effects on Thermoelectric Materials""; ""Thermoelectric Elements in Space Power Systems"";
""Thermoelectric Materials for Space Cooling""; ""B. Thermionics"";
""Review of the Physics of Thermionics""; ""Plasma Thermionics""
""Cesium Converter Studies""""Parametric Optimization of the Emission-Limited Thermionic Converter""; ""Experimental Research on Plasma Thermionic Energy Converters""; ""Theory of the Cesium Plasma Energy Converter with a Tungsten Cathode""; ""Chemistry of Fuel Element Cathode Materials""; ""A Nuclear-Thermionic Fuel Element Test""; ""C. Photovoltaic Cells""; ""The Photovoltaic Effect and Solar Energy

Conversion"; "Advances in Silicon Solar Cell Development"; "Large Area Solar Cells"; "Evaporated CdS Film Photovoltaic Cells for Solar Energy Conversion"
"Integrally Composed Variable Energy Gap Photovoltaic Cells""Some Theoretical Aspects of the Physics of Solar Cells"; "Electron Bombardment of Silicon Solar Cells"; "Radiation Damage in Satellite Solar Cell Power Systems"; "High Energy Proton Radiation Damage"; "The Use of Vacuum Deposited Coatings to Improve the Conversion Efficiency of Silicon Solar Cells in Space"; "D. Electrochemical Cells"; "General Evaluation of Chemicals for Regenerative Fuel Cells"; "Resume of Thermally Regenerative Fuel Cell Systems"; "Regenerative Hydrogen-Oxygen Fuel Cell"
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"F. Magnetohydrodynamics""The Prospects for MHD Power Generation"; "Aspects of Magnetohydrodynamic (MHD) Generators for Space"; "Experiments Relating to Generation of Power by Magnetohydrodynamics"; "A Vortex MHD Power Generator"; "On the Magnetogasdynamics of Compressible Vortices"; "G. Electrostatic Generators"; "High Voltage Generation in Space: The Parametric Electrostatic Machine"; "Electrostatic Generators in Space Power Systems"
