

1. Record Nr.	UNINA9910457538503321
Titolo	Metallurgical technologies, energy conversion, and magnetohydrodynamic flows [[electronic resource] /] / edited by Herman Branover, Yeshajahu Unger
Pubbl/distr/stampa	Washington, D.C., : American Institute of Aeronautics and Astronautics, 1993
ISBN	1-60086-621-2 1-60086-402-3
Descrizione fisica	1 online resource (746 p.)
Collana	Progress in astronautics and aeronautics, , 0079-6050 ; ; v. 148
Altri autori (Persone)	BranoverHerman UngerYeshajahu
Soggetti	Metallurgy Direct energy conversion Magnetohydrodynamics Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Technical papers from the proceedings of the sixth Beer-Sheva International Seminar on Magnetohydrodynamic Flows and Turbulence, Ben-Gurion University of the Negev, Beer-Sheva, Israel, February 25-March 2, 1990, and subsequently revised for this volume." Includes bibliographical references and index.
Nota di bibliografia	
Nota di contenuto	""Cover""; ""Title""; ""Copyright""; ""Preface""; ""Table of Contents""; ""Chapter 1. Metallurgical Technologies""; ""Metallurgical Applications of Magnetohydrodynamics""; ""Research and Development in the Field of MHD Devices Utilizing Liquid Working Medium for Process Applications""; ""Application of MHD Facilities to Technology""; ""Electromagnetic Modulation of Molten Metal Flow""; ""Superconducting MHD Devices: Parametric Study of an Electromagnetic Pump Performance""; ""Induction Electromagnetic Pumps for Alkali Metals: Status and Perspectives"" ""Physical Model for Electromagnetically Driven Flow in Channel Induction Furnaces""""Grain Refinement in Aluminum Alloys by an Electromagnetic Vibrational Method""; ""Dendrite Growth of Solidifying Metal in DC Magnetic Field""; ""MHD Means for Affecting Hydrodynamics, Heat Transfer, and Mass Transfer at Single Crystal Melt

Growth"; "Inverse Electromagnetic Shaping Problem"; "Chapter 2. Energy Conversion"; "Major Engineering Physics for Optimization of the Sea water Superconducting Electromagnetic Thruster"; "Liquid-Metal MHD Research and Development in Israel"
"OMACON Technology for Seawater Desalination" "MHD Generator for Waste Heat Utilization in Northern Conditions"; "Recent Results on LMMHD Induction Generators"; "Analytical and Experimental Studies of End Effects in an LMMHD Generator"; "Theoretical Magnetic Field Distributions Eliminating End Losses in Linear High Magnetic Reynolds Number MHD Channels"; "Embrittlement of Steels by Lead"; "Materials Compatibility of Mercury for Practical Applications at Elevated Temperatures"; "Status of MHD Energy Conversion Research in Poland"
"Open Cycle Disk Generator Operating Conditions" "Conceptual Design of an MHD Retrofit of the Corette Plant in Billings, Montana"; "Constricted Discharges in Ar-Cs MHD Generators"; "Pseudo Two-Phase Flow in an Open-Cycle MHD Generator"; "Analysis of Flow Parameters in MHD Channel at Various Load Conditions"; "Simulation and Comparison with the Experiment: The Dynamic Processes in an MHD Facility Flow Train"; "Acceleration of Gas-Liquid Piston Flows for Molten-Metal MHD Generators"; "Recent Developments in Liquid-Metal MHD Thermoacoustic Engines"
"Chapter 3. Magnetohydrodynamic Flows" "Interfacial Instabilities in the Presence of Electric Current and Magnetic Field"; "Survey of Liquid-Metal MHD Activities in Dresden"; "Experiments with a Superconducting Magnet on an InGaSn Loop"; "Comparison of the Core Flow Solution and the Full Solution for MHD Flow"; "Hydrodynamics and Heat Transfer of Thin Liquid-Metal Films in a Magnetic Field"; "Effects of a Vertical Magnetic Field on Rayleigh-Benard Convection in Mercury"; "MHD Flow Around a Cylinder in an Aligned Magnetic Field"
"Electromagnetically Driven Flow Around a Cylinder"
