1. Record Nr. UNINA9910968122803321

Titolo	Novel materials processing by advanced electromagnetic energy sources (MAPEES'04) : proceedings of the International Symposium on Novel Materials Processing by Advanced Electromagnetic Energy Sources : March 19-22, 2004, Osaka, Japan / / S. Miyake, editor-in-chief
Pubbl/distr/stampa	Amsterdam ; ; Boston, : Elsevier, 2005
ISBN	1-280-63772-2 9786610637720 0-08-045612-X
Edizione	[1st ed.]
Descrizione fisica	1 online resource (477 p.)
Altri autori (Persone)	MiyakeS (Shoji)
Disciplina	539.7
Soggetti	Electromagnetic waves Materials science Materials - Electric properties Materials - Magnetic properties
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 author index.
Nota di contenuto	Cover; CONTENTS; Preface; Organizing Committee; Plenary Papers; Smart Processing Development of Novel Materials for Electromagnetic Wave Control; A Review of Cluster Ion Beam Process Technology; Plasma Processing; Structural Control of Nanocarbon Materials by Novel Plasma Processing (Invited); Amorphous Carbon Film Deposition by Magnetically-Driven Shunting Arc Discharge (Invited); RF Sheet-Plasma Source Using Permanent Magnets; Deposition Uniformity of Pulsed Vacuum Arc Ion Source Thermal Properties of Gravity-Free Gas-Arc Discharge Measured in a Jet Plane and Its Application Nano-Tube ProductionNew Method for Measuring Ion Energy in Pulsed Vacuum Arc; Relationship between H-/D- Production and Plasma Parameter Control with Magnetic Filter in Volume Negative Ion Sources; Novel Method to Increase Energy Density of Arc Plasma Jet; Material Coating Using Electromagnetically Accelerated Plasma Jet; Process Control of Carbon Nanotube Formation

Using RF Glow-Discharge Plasma in Strong Magnetic Field
Development of Arc Discharge Method in Organic Solvents for the Formation of DNA Encapsulated Carbon NanotubesEffects of Sputtering Due to Ion Irradiation on Plasma Anisotropic CVD of Cu; Evaluation of Contribution of Higher-Order Silane Radicals in Silane Discharges to Si-H2 Bond Formation in A-Si:H Films; Nanometer-Ranged Metallic Coatings by Noble Pulsed Cathodic Arc Deposition; Preparation of Hard Carbon Films by MCECR Plasma Sputtering Method; Microwave/Millimeter-Wave Processing; Micro- and Millimeter-Wave Processing of Advanced Materials at Karlsruhe Research Center (Invited) Simultaneous Use of Different High Frequency Energy Sources for Material Processing (Invited)High Power Submillimeter Wave Radiation Sources, Gyrotron FU Series (Invited); What Type of Transport Phenomena can be Induced by Microwave Field in Solids and How These Phenomena Contribute to Materials Processing (Invited); Powerful Electron Beams for Cyclotron Resonance Devices; Quasi-Stationary Electro-Thermal Heating Model for Microwave/Hybrid-Processed Materials Using Greens Function Techniques; Aerospace CFRP Structure Fabrication with the 2.45 GHz Hephaistos System
Optimization of Slotted Waveguides for 2.45 GHz Applicators Using Nobel Slot TypesThe Role of High Pressure Plasma in Microwave Sintering Processes; Heating Behavior of Slags in 2.45 GHz Microwave Applicator; Rapid Heating by Single-Mode Cavity Controlled at 6 GHz; Millimeter-Wave Dielectric Measurement of SiC Powders as a Basis of Millimeter-Wave Sintering of Ceramics; Boron Carbide Ceramics Sintering by Using 24 GHz Compact Gyrotron; Instrumented Millimeter Wave Sintering of Mechanically Alloyed Amorphous Ceramic Powders for Bulk Nanocrystalline Synthesis
Millimeter-Wave Effect on Sintering of Silicon Nitrides by 28 GHz Millimeter-Wave Radiation

Sommario/riassunto

Proceedings of the International Symposium in Novel Materials Processing by Advanced Electromagnetic Energy Sources (MAPEES'04) *Identifies and details recent progress achieved by advanced electromagnetic energy sources in materials processing.*Explores novel approaches to advanced electromagnetic energy processing of materials in an attempt to discover new and unique industrial fields.