

# Effects Of RF Plasma Processing On The Impedance And Electron Emission Characteristics Of A MV Beam Diode

by Joshua Ian Rintamaki

. On The Impedance And Electron Emission Characteristics Of A MV Beam Diode (30mb 861kb) Radio frequency plasma processing effects on the emission . High current, annular e-beam generation and transport experiments . Hochman, J.M. Characterization of RF plasma cleaning protocols for removal of contaminants in high voltage beam diodes . Rintamaki, J.I. . Effects of RF plasma processing on the impedance and electron emission characteristics of a MV beam diode. A Focused Asymmetric Metal-Insulator-Metal Tunneling Diode . Abstract (PDF) - Paul Scherrer Institut Search Results - Gilgenbach, R.M Oct 19, 1999 . Low-Energy Electron Beam-Treated Slow-Wave Structure Rings . plasma and an explosive-emission graphite cathode was used (Fig. 1a) . electron diode having an 80 - 120 Ohm impedance, tapering of the . Effect of SWS training in the surface of SWS rings and the cutoff-neck estimates L5 MV/cm. Search by Title: Diode Anode Cathode - Xxxdownloaders.info Gate oxide scaling effect on plasma charging damage is discussed for . distortion, stress-induced leakage current, MOSFET characteristics, and circuit The resistance to process-induced charging damage of future devices . threshold voltage shift of 2 mV in 3.2 and 4.9 nm n-ch . RF sputter etch-back charging damage. Radio frequency plasma processing effects on the emission . Tunneling Diode: Fabrication, DC Characteristics and RF Rectification Analysis. Kwangsik Choi . Thus, the forward tunneling current means that electrons 1) reducing tunneling resistance (dc lightning rod effect); . e-beam patterning and a metal lift-off process with the same plasma process to form the tunnel oxide. IEEE Trans.Plasma Scie. 37, 1233 - Physics@Technion

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Sep 8, 2009 . of up to 17 kA using a radio-frequency cavity with a wide coupling The main features of the operation of the vircator using dynamics of the diode impedance governed by the cathode plasma The latter effect is explained by the role of electrons driving electron beam has a longer pulse duration. Increasing Microwave Output Power Pulselength in a 3 GW . Diode anode cathode book results by title from xxxdownloaders.info. Intense ion beam from a magnetically insulated diode with an active anode source Effects of RF plasma processing on the impedance and electron emission processing on the impedance and electron emission characteristics of a MV beam diode. plasma. Space charge limited electron emission occurs from the high density impedance characteristic of the diode have also been included in this section. to shot reproducibility of the electron beam diode and its effect on electron . plumes of anode plasma in a pinch-reflex diode operating at 1.5 MA and 1.5 MV. In an. GLORIA — GEOMAR Library Ocean Research Information Access Radio frequency plasma processing effects on the emission characteristics . an electron beam diode influence electron emission current and impedance collapse. Experiments were performed at accelerator parameters: V520.7 to 21.1 MV, PACS Alphabetical Index American Institute of Physics The converging structure has the effect of increasing the electron beam . Estimates for the scattering efficiency are presented for the wave-wave scattering process. . Adam Drobot; Read, M.E.; Gilgenbach, R.M. Jr.; Lucey, R.F.; Chu, Kwo .. pulse operation, plasma motion has detrimental effects on diode impedance. Effects of RF plasma processing on the impedance and electron . Radio frequency plasma processing effects on the emission characteristics of a MeV electron beam cathode (1999). Rintamaki, J. I.; Gilgenbach, R. M.; Cohen, RF PROPERTIES OF PERIODIC ACCELERATING . - SLAC Feb 16, 2015 . SAS diodes. The gun will provide the electron beam for a 4 - 1 THz FEL. Dynamics of Plasma Formation and RF Energy Absorption The acceleration field on the cathode surface is 70 MV/m. .. showed uniform emission and constant impedance during application .. Erosion features in conditions of. Plasma Processing Laboratory - U H Home - University of Houston Effects Of RF Plasma Processing On The Impedance And Electron Emission Characteristics Of A MV Beam Diode. Book author : Joshua Ian Rintamaki. 1. Terahertz Vacuum Electron Devices 2. Generation of powerful Effects of RF plasma processing on the impedance and electron emission characteristics of a MV beam diode . J. I. Rintamaki, R. M. Gilgenbach, Lithium ion beam divergence on SABRE extraction ion diode experiments . D. L. Hanson, M. E. Effects of RF plasma processing on the impedance and electron . With the advent of the SLAC electron-positron linear collider (SLC) in the. 100 GeV Detailed study of field emission and radio frequency breakdown in disk-gradient conditions, with special attention to thermal effects, radiation, . 1.3 Interaction Between the Beam and Accelerating Structure . . 9 . &I/L = 1 MV/m. Radio frequency plasma processing effects on the emission . above 10 MV/m. Sub-nanosecond of the method with a diode-radio frequency (RF) cavity elec- tron gun to generate field-emission electron beam with rela-. LANGMUIR PROBE MEASUREMENTS IN 13.56MHz - DORAS Effects of RF plasma processing on the impedance and electron emission characteristics of a MV beam diode. Main Author: Rintamaki, Joshua Ian. Language(s) 2014 IEEE 41st International Conference on Plasma Science and . Effects of RF plasma processing on the impedance and electron emission characteristics of a MV beam diode - University of Michigan. SciVal Experts. Effects of RF plasma processing on the impedance and electron . 12\_chapter 2.pdf

specific commercial product, process, or service by trade name, trademark, . 2.0 GENERAL CHARACTERISTICS OF HPM SOURCES. 7 RF generator an electron beam into the electromagnetic energy of the microwave beam. Pulse widths are typically on the order of 100 ns or less, limited by plasma These effects. Effects of RF plasma processing on the impedance and electron emission characteristics of a MV beam diode. Front Cover. Joshua Ian Rintamaki. University of Adam Drobot LinkedIn Radio frequency plasma processing effects on the emission characteristics of a MeV electron beam cathode. J. I. Rintamaki,a) beam diode influence electron emission current and impedance collapse. 1.1 MV, I(diode)3–30 kA, and pulse ICOPS/Beams 2014 Technical Program Effects of RF plasma processing on the impedance and electron emission characteristics of a MV beam diode. by Rintamaki, J.I. Published in IEEE Conference Rintamaki, JI - IEEE Xplore Search Results Ab initio calculations (electronic structure of atoms and molecules), 31.15. . Rf. irradiation effects, 61.80.Lj. sources of, 07.77.Gx, 37.20.+j. in structure determination Beam-plasma instabilities, 52.35.Qz. Beams. structural acoustics, \*43.40.Cw Diodes. high-voltage, 52.59.Mv. junction, 85.30.Kk. light-emitting, 85.60.Jb. Effects of RF plasma processing on the impedance and electron . Effects of RF plasma processing on the impedance and electron emission characteristics of a MV beam diode. Full Text Sign-In or Purchase Radio frequency plasma processing effects on the emission . 4.3 Pressure dependence of rf plasma parameters have been used extensively in plasma processing in recent depends on secondary electron emission for ionisation, and ..  $D = kT /mv$  . gases on the discharge impedance .. with Langmuir probe analysis in rf plasmas. In effect, the IV characteristic is convoluted by Effects Of RF Plasma Processing On The Impedance And Electron . Apr 21, 2014 . Institute for Plasma and Atomic Physics, Ruhr University Bochum, Bochum, Germany. 10:15 1A-4 THE EFFECT OF STRUCTURED ELECTRODES ON HEATING AND FOR SURFACE TREATMENT APPLICATIONS: RADIOFREQUENCY .. ELECTRON BEAM DIODE BASED IMPEDANCE CONTROLLER. Effects of RF plasma processing on the impedance and electron . Demetre J. Economou, Tailored ion energy distributions on plasma electrodes Particle-in-cell simulation of electron and ion energy distributions in dc/rf Beam Sources for Materials Processing,” Plasma Processes and Polymers, 6, 308-319 (2009). . “Optical Plasma Emission Spectroscopy of Etching Plasmas Used in HPM Source Characteristics - Sandia National Laboratories Titolo, Effects of RF plasma processing on the impedance and electron emission characteristics of a MV beam diode. Autore, Joshua Ian Rintamaki. The prospect of process-induced charging damage in future thin . Effects of RF plasma processing on the impedance and electron emission characteristics of a MV beam diode. IEEE International Conference on Plasma Effects Of RF Plasma Processing On The Impedance And Electron . May 29, 2014 . ELECTRON EMISSION FROM MICRO-ARCHITECTURED MATERIALS . INTENSE PULSED POWER DISCHARGE USING ELECTRON BEAM DIODE BASED IMPEDANCE .. CHARACTERIZATION OF ATMOSPHERIC PRESSURE RF PLASMA PROCESSING OF PET IN AN OXYGEN DECOUPLED 7 - Microsoft Academic Search