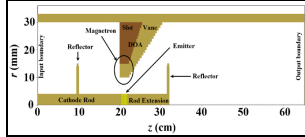


Editor's Highlighted Articles

A Novel Compact High-Power X-Band Relativistic Magnetron With Diffraction Output



by Ya. E. Krasik, J. G. Leopold, O. Belozarov, Y. P. Bliokh, E. Magid, and G. Goldstein

[Read More](#)



IEEE TRANSACTIONS ON
**PLASMA
SCIENCE**

A PUBLICATION OF THE IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY

APRIL 2026 VOLUME 54 NUMBER 4 ITPSBD (ISSN 0093-3813)

PART 31 of THREE PARTS

REGULAR PAPERS

Ball Physics in Fully and Partially Ionized Plasmas
The Impact of the Generalized ν_{\perp} of Hotball Electrons on the Formation of Magnetic Shock Structures in an Anisotropic Plasma 1423

Effect of Electrons on a Helium Neutron in Mesh Diodeless Radio Discharge Electromagnetic Emission 1434

Microvortex Generation and Microwave Plasma Interactions
Numerical Modeling of Electromagnetic Wave Interactions Through a 2-D Magnetized Plasma Sheath 1447

An Approach to Electron Optical System Design for Dual-Beam Radio-Frequency Wave Tubes 1453

High-Efficiency Short-Beam Free-Electron Inverse-Compton Scattering in the Hard X-Ray Regime 1457

Computational Study of the Impact of Microstructure Features on the Performance of Dual-Beam Magnetron-Driven Linear Chirped-Beam Sources 1464

Submillimeter-Wave Microwave-Generated Free-Electron Lasers 1471

Investigation of the Frequency Response Characteristics of a Resonant Magnetron-Driven Radio Frequency System 1478

Compact and Lightweight PPMF Focusing and Field Tuning Method for High-Power High-Frequency Systems 1483

A Novel Compact High-Power X-Band Relativistic Magnetron With Diffraction Output 1491

Charged Particle Beams and Sources
Resonant Relativistic Helicon Wave Using Optical Bragg Scattering 1497

IEEE

IEEE Transactions on Plasma Science

A publication of the IEEE Nuclear and Plasma Sciences Society.

[VIEW THE TABLE OF CONTENTS](#)



[T-PS Home](#) [T-PS in IEEE Xplore](#) [Early Access](#) [Manuscript Submission](#)

[View the full series on IEEE Xplore.](#)