

Pulsed Power Technology for Driving Low Energy Plasma Focus device

Wednesday 12 May 2021 18:25 (20 minutes)

Pulsed power technology of switched-mode has been employed to design and build a high-voltage pulsed-power supply as an efficient pulse drive unit for low energy plasma focus devices (PFDs). The plasma focus has been widely investigated as a radiation source, including as ion-beams, electron-beams and as a source of x-ray and neutron production, providing considerable scope for use in a variety of technological situations. CR-39 solid-state nuclear track detectors were employed as time integrated for registration the proton emission. A Plasma Focus device (0.1 kJ, 15 kV) is studied as a pulsed X-ray source, operated with hydrogen at a filling pressure in the range of 0.1 to 3 Torr. The time resolved X-ray signals are measured with PIN diode detector .

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Session Classification: P4 Posters 4

Track Classification: Innovative and Alternative Fusion Concepts