Abstract

CR-39 SSNTDs were employed to investigate Hydrogen ions lateral spread and their energy vis-à-vis filling pressure in a low energy (2.3 kJ) plasma focus. The low energy plasma focus was energized by a 32 μF, 12 kV Maxwell capacitor. The detectors were exposed at two different orientations namely normal and at 45° to the axis of anode at five filling pressures of the working gas namely 0.5,0.75,1.0,1.25,1.5 mbar. The exposed detectors were etched in 6N NaOH solution for 4 hrs at 70°C. The etched detectors were scanned using an optical microscope. The ions flux was determined by counting tracks. The ions flux was found to show a regular variation along a line. The energy of ions was estimated to be 80 keV.