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A non-neutral electron plasma was confined with an axisymmetric magnetic mirror. (a) A phosphor screen image of the plasma extracted to the low field. The white broken line shows the size of the screen. (b) The cross section of the radial intensity profile including the axis of symmetry. It is seen that the electron distribution becomes hollow. (f) Propagation of solitary waves excited at low field ( $z = 0$ ). The velocities of solitons decreased at higher field. (g),(h),(l) The same data set for the electrostatic confinement at high field side. (Hiroyuki HIGAKI *et al.*, Plasma and Fusion Research Vol.5, 029 (2010) <http://www.jspf.or.jp/PFR/>)

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