

JOURNAL OF PLASMA AND FUSION RESEARCH

The Journal of the Japan Society of Plasma Science and Nuclear Fusion Research

Vol. 87, No.6, June 2011

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Z-pinch discharge in a tapered capillary was used to form dense, high-speed plasma relevant to laboratory astrophysics. The current sheet in a tapered capillary sequentially pinches, thus radially compresses and axially accelerates the plasma. We showed that difference of pinching time in the capillary determined by initial gas density, discharge current waveform, and capillary geometry is an important indicator to control the axial velocity and density of plasma. (Koichiro ADACHI *et al.*, Plasma and Fusion Research Vol. 6, 1201019 (2011) <http://www.jspf.or.jp/PFR/>)



Published Monthly by

The Japan Society of Plasma Science and Nuclear Fusion Research

3-1-1, Uchiyama, Chikusa-ku, Nagoya 464-0075, Japan

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