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Primary electron (60eV) trajectories in JAEA 10 ampere negative ion source with an external magnetic filter. Contrast of conventional negative ion sources with strong transverse magnetic field as shown in (b) and (c), it has suggested that high-density and temperature plasma without the magnetic filter as shown in (a) enhances the surface production of negative ion under Cesium-seeded condition. (Hiroyuki TOBARI *et al.*, Plasma and Fusion Research Vol.2, 022 (2007). <http://www.jspf.or.jp/PFR/>)