

## 【PP-10】

# Numerical simulation of the reflex triode virtual cathode with an intense relativistic electron beam

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A virtual cathode reflex triode is investigated by numerical simulation with a 3-dimensional particle-in-cell (PIC) code called MAGIC. The reflex triode virtual cathode oscillator has a disk cathode and a disk anode-mesh. Here anode-cathode (A-K) gap distance has been varied from 10mm to 30mm. Simulation results show that the output microwave frequency has a narrow bandwidth and its output microwave power depends sensitively A-K gap distance. Output microwave mode is mixture of TE mode at A-K gap distance 10mm, however, TE is to be dominant mode at A-K gap distance 30mm

### [References]

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