

## **[PP-17]**

# **Numerical simulation study of axially extracted virtual cathode oscillator with annular cathode**

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A numerical simulation study of a virtual cathode oscillator with an annular cathode has been performed by a 3 dimensional particle-in-cell (PIC) code called MAGIC. The annular diode consists of a circular anode mesh and an annular cathode. The main values of this simulation are emission-width, cathode radius and anode-cathode gap (A-K gap) distance of annular cathode structure. The focus of this investigation is to find the optimized values of an annular cathode in our high power microwave pulser, "Chundoong". As the frequency, mode and power of the output microwave in an annular structure are simulated, we will find the effective size of the annular cathode for the virtual cathode oscillator.

### [References]

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