

Abstract Submitted
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The Behavior of Plasma Gases in Explosively-Driven Plasma Generator MINSU SEO, JIN SOO CHOI, INHO KIM, Agency for Defense Development — The plasma-hydrodynamic computer simulation has been performed in order to investigate the thermodynamic and electrical properties of plasma generated in an explosively-driven cylindrical plasma generator. An one-dimensional hydrodynamic code, One-D, was written for this study and a realistic plasma equation of state model was applied to the code. A couple of plasma generators were manufactured and filled by dry air or pressurized argon gas for plasma medium. The plasma thickness and flow velocity were measured by utilizing the optical and electrical pins. The simulation results of the plasma characteristics were in good agreement with the measured values.

Inho Kim
Agency for Defense Development

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