ESTIMATION OF THE EFFICIENCY OF MATERIAL INJECTION INTO THE REFLEX DISCHARGE BY SPUTTERING THE CATHODE MATERIAL

Yu.V. Kovtun, A.I. Skibenko, E.I. Skibenko, V.B. Yuferov

National Science Center
“Kharkov Institute of Physics and Technology”, Nat. Acad. of Sci. of Ukraine
(1, Akademichna Str., Kharkiv 61108, Ukraine; e-mail: Ykovtun@kipt.kharkov.ua)

Summary

The processes of injection of a sputtered-and-ionized working material into the pulsed reflex discharge plasma have been considered at the initial stage of dense gas-metal plasma formation. A calculation model has been proposed to estimate the parameters of the sputtering mechanism for the required working material to be injected into the discharge. The data obtained are in good accordance with experimental results.