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# Influence of secondary electron emission coefficient of MgO protective layer on Electrical Discharge Characteristics in AC-PDP

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The secondary electron emission coefficient $\gamma$ is one of the MgO film characteristics, which correlates to firing voltage of AC-PDPs. The $\gamma$ of various MgO protective layer are investigated by using the $\gamma$ - FIB ($\gamma$-focused ion beam) system. The contents of gas mixture have an influence on the discharge current delay. It is found in this experiment that the secondary electron emission coefficient $\gamma$ of the various MgO samples with respective different $\gamma$ could also result in discharge current delay even though we make use of the identitcal gas mixtures. The electrical discharge characteristics are also investigated in accordance with these various MgO protective layer.

[References]

1) B. W. Byrum, Jr. : IEEE Trans. Electron Devices 22 (1975) 685.
2) H. D. Hagstrum : Phys Rev. 96 (1954) 336
3) E. H. Choi, H. J. Oh, Y. G. Kim, J. J. Ko, J. Y. Lim, J. G. Kim, D. I. Kim, G. S. Cho and S. O. Kang : Jpn. J. Appl. Phys. Vol. 37 (1998) pp. 7015-7018
4) M. O. Aboelfotoh and O. Sahni, IEEE Trans. Electron Devices 28 (1981) 645