

Abstract Submitted  
for the GEC11 Meeting of  
The American Physical Society

**Vacuum Ultraviolet Emission from Magnetized Low-pressure Micro Plasma** HIROSHI FUJIYAMA, SHINTARO HAYATA, SHUNSUKE TAJIRI, Nagasaki University — High ionizing level micro plasma has been developed for the low-pressure and short gap length conditions by using resonantly confinement effect of electrons at the second harmonic ECR condition,  $\omega_{ce}/\omega=0.5$ . So, it is expected that the high-efficiency VUV source with less self-absorption of VUV emissions. In the present study, the VUV emissions from the low-pressure micro plasma source have been investigated by using VUV spectroscopic measurement. The maximum 147nm VUV peak intensity was obtained at the second harmonic ECR condition as same as the maximum electron density and minimum electron temperature. Furthermore, the 147nm emission intensity was increased with decreasing the operational gas pressure. The self absorption of 147nm VUV emission by Xe atom could be decreased with decreasing the operational gas pressure.

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Date submitted: 14 Jul 2011

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