Abstract Submitted
for the GEC05 Meeting of
The American Physical Society

Spectroscopic study for abatement system for the global warming gases using VAWP[1] JIANKUN WANG, RYOHEI ITATANI, TOHRU YASUDA, Adtec Plasma Technology Co. Ltd, 5-6-10, Hikinocho, Fukuyama, Hiroshima, Japan — A unique abatement system for the global warming gases such as PFCs, HFCs and CFCs was developed. This, called as VAW(Vertical Aqua Wall) plasma system, consists of a vertical straight tube, from the top of which the target gases are introduced with the water covering the inner wall of the tube. A stable long arc in atmospheric pressure is produced between a cathode above the tube and an anode covered by thin water film in the lower part of the tube through which the arc current flows. More than 99% of decomposition efficiency with 300sccm CF4 diluted by 15slm N2 was achieved by this system. Here, in order to investigate the structure of this exotic plasma, we observe the distribution of OES along both vertical and radial directions of the plasma column. The results will be shown in the presentation.

[1]This study is sponsored by New Energy and Industrial Technology Development Organization of Japan

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Date submitted: 17 Jun 2005 Electronic form version 1.4