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A study on ultraviolet photochemical effects on low-pressure oxygen plasmas SIJUN KIM, JANGJAE LEE, KWANGKI KIM, YOUNGSUK LEE, DAEWOON KIM, SHINJAE YOU¹, Chungnam National University — Low pressure oxygen plasmas have been applied to various industrial processing such as cleaning, ashing and oxidation. Many studies have investigated characteristics of oxygen plasma through plasma modeling and experiments. Although oxygen plasmas are electronegative discharges, photochemical effects on negative ion species and neutral radicals have not yet fully understood. In this study we use a global model (volume averaged) in capacitive reactor design to understand ultraviolet photochemical effect on low-pressure oxygen plasmas and compare with experiments.

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