Geophysical Research Abstracts
Vol. 13, EGU2011-13712, 2011
EGU General Assembly 2011


# Absorption cross section measurements of $CO_2$ isotopologues $^{13}CO_2$ and $C^{18}O_2$ in the wavelength range 150-186 nm

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$CO_2$ photolysis is important for planetary atmospheres and for understanding the origin of mass independent isotope effects. We report the first measurements of the absorption cross sections of two isotopologues of $CO_2$, $^{13}CO_2$ and $C^{18}O_2$, in the wavelength range 150– 187 nm measured at the Swedish synchrotron research facility, MAX-lab. Weak vibronic structure is seen that shifts in a regular way with isotopic substitution. The results indicate mass independent fractionation would occur in single wavelength photolysis studies.