

OSCILLATOR STRENGTHS AND PREDISSOCIATION RATES FOR $W - X$ BANDS AND THE 4P5P COMPLEX
IN $^{13}\text{C}^{18}\text{O}$

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In our ongoing experiments on the DESIRS beam-line at the SOLEIL Synchrotron, we are acquiring the necessary data on oscillator strengths and predissociation rates for modeling CO photochemistry in astronomical environments. A VUV Fourier Transform Spectrometer with a resolving power of about 350,000 allows us to discern individual lines in electronic transitions. Here we focus on results obtained from absorption spectra of $^{13}\text{C}^{18}\text{O}$, for the $W^1\Pi - X^1\Sigma^+$ bands with $v' = 0, 2, \text{ and } 3$ and $v'' = 0$ and three resolved bands involving transitions to the upper levels $4p\pi(2)$, $5p\pi(0)$, and $5p\sigma(0)$ of the $4p(2)$ and $5p(0)$ complexes. We compare our results with earlier determinations for this isotopologue of CO, as well as with our SOLEIL measurements on $^{12}\text{C}^{16}\text{O}$, $^{13}\text{C}^{16}\text{O}$, and $^{12}\text{C}^{18}\text{O}$.