REVISED TERM VALUES FOR THE $A - X$ ($v' = 0$-9, $v'' = 0$) BANDS IN $^{13}C^{16}O$ FROM HIGH-RESOLUTION SPECTRA ACQUIRED AT THE SOLEIL SYNCHROTRON

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High-resolution spectra of the $A\ ^1\Pi - X\ ^1\Sigma^+$ band system of $^{13}C^{16}O$ are presented. These were obtained with the VUV Fourier transform spectrometer installed on the DESIRS beamline at the SOLEIL synchrotron. We provide revised term values that extend to higher $J'$ values than previous VUV measurements for most $v'$ levels and lower $J'$ values for $v' = 0$. Previously observed perturbations of the rotational levels are confimed, but are seen now in greater detail, and evidence is presented for new perturbations. The uncertainty in the line positions and term values of most CO transitions is estimated to be within 0.01 cm$^{-1}$.