# 1540 TRANSITIONS ASSIGNED IN THE CRDS SPECTRUM OF $^{18}O_3$ BETWEEN 6500 AND 6700 $cm^{-1}$

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We continue our systematic study of the ozone high resolution infrared spectrum by the analysis of the $^{18}O_3$ spectra which is important to validate the ozone Potential Energy Surface. The analysis of the CW-CRDS spectrum in the 6500-6700 $cm^{-1}$ region is presented. 1540 transitions have been assigned to 3 A-type bands: $3\nu_2$+$5\nu_3$, $2\nu_1$+$3\nu_2$+$3\nu_3$ and $5\nu_1$+$\nu_2$+$\nu_3$ and one B-type band: $\nu_1$+$3\nu_2$+$4\nu_3$. The elaboration of a suitable effective Hamiltonian model was challenging, as in addition to Coriolis or anharmonic resonances between the four above states corresponding to these observations, four additional dark states are involved: $(171)$, $(106)$, $(063)$ and $(440)$. We present here the final sets of experimentally derived energy levels, the comparisons of the observed band centres with the predictions, and the work in progress for the Hamiltonian and dipole moment models. Comparisons between observed and synthetic spectra are also provided.