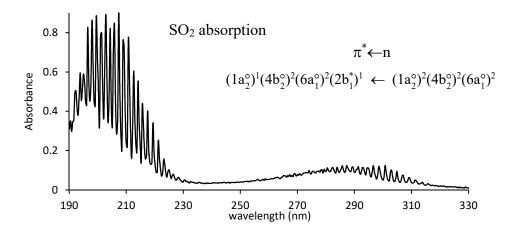
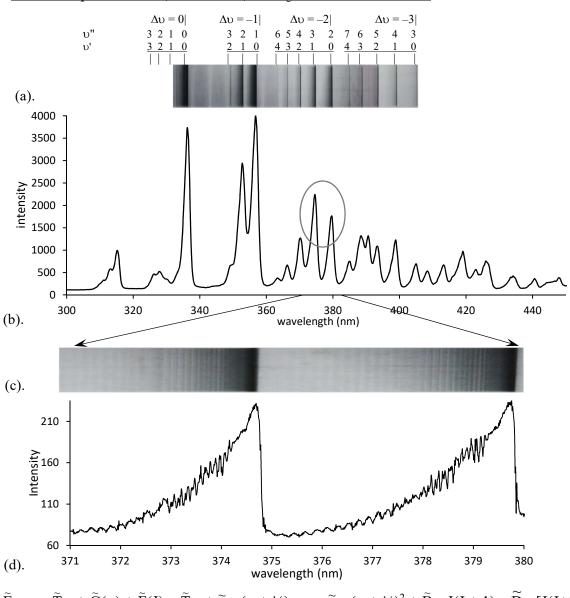
## **Electronic Spectroscopy**



## Emission spectrum of $N_2$ for the ${}^3\Pi_u \rightarrow {}^3\Pi_g$ electronic transition.



$$\widetilde{E}_{i,\upsilon,J} \, = \widetilde{T}_{e,i} + \widetilde{G}(\upsilon) + \widetilde{F}(J) = \widetilde{T}_{e,i} + \widetilde{\nu}_{e,i} \, (\upsilon + \frac{\imath}{2}) - \chi_{e,i} \, \widetilde{\nu}_{e,i} \, (\upsilon + \frac{\imath}{2})^2 + \widetilde{B}_{\upsilon,i} \, J(J+1) - \widetilde{D}_{e,i} \, [J(J+1)]^2$$

