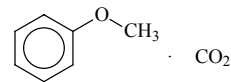
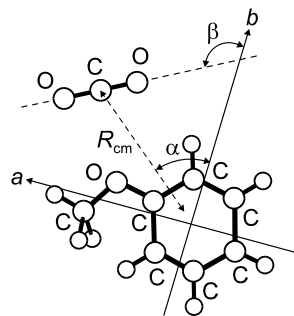


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LIF $\text{C}_8\text{H}_8\text{O}_3$ **Methoxybenzene – carbon dioxide (1/1)** C_s Anisole – carbon dioxide (1/1)
(weakly bound complex)(effective symmetry class)
(large-amplitude motion)

State	S_0	S_1
Energy [eV]	0.000	4.526
$r_0(R_{\text{cm}})$ [Å]	4.432(5)	4.475(5)
$\theta_0(\beta)$ [deg]	115(25)	130(24)
$\theta_0(\alpha)$ [deg]	39(4)	35(3)



Anisole in a carrier gas consisting of 0.5% carbon dioxide in helium passed through a nozzle into an expansion chamber. The molecular beam passed through a skimmer into a second chamber maintained at a pressure of 10^{-4} to 10^{-5} Pa. Fluorescence was excited by a CW frequency doubled dye laser which could be scanned over the width of a band. Rotational analysis yielded molecular constants from which the geometrical parameters of the anisole complex were deduced.



Eisenhardt, C.G., Pasquini, M., Pietraperzia, G., Becucci, M.: Phys. Chem. Chem. Phys. **4** (2002) 5590.