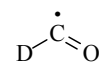


86 **CHO** **Oxomethyl-*d*₁** **C_s**
 LIF Formyl-*d*₁

State	\tilde{X}^2A'	\tilde{B}^2A'
Energy [eV]	0.00	4.789
$r_0(\text{C-D})$ [Å]	1.121(5)	1.121(6)
$r_0(\text{C=O})$ [Å]	1.175(1)	1.371(1)
$\theta_0(\text{D-C=O})$ [deg]	124.95(25)	105.1(2)
Reference	[1]	[2]



DCO radicals were produced by excimer laser photolysis of CD₃CDO in a supersonic free jet expansion in He. The DCO radicals were detected by laser-excited fluorescence using the frequency doubled output of an excimer pumped dye laser. The spectra obtained showed vibrational and rotational structures. Analysis of the latter gave rotational constants from which structural information was obtained.

[1] Brown, J.M., Ramsay, D.A.: Can. J. Phys. **53** (1975) 2232.

[2] Gripp, J., Kuczmann, A., Stöck, C., Temps, F., Tröllsch, A.: Phys. Chem. Chem. Phys. **2** (2000) 1653.

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