72 **CHClO** **Formyl chloride** **C_1**

CRD

State	$\tilde{A}\ ^1A''$ [a])
Energy [eV]	4.242
r(C=O) [Å]	1.301
$\theta(\varphi)$ [b]) [deg]	25
θ(Cl−C=O) [deg]	109.0

HClCO was produced by flowing formic acid over powdered PCl_5 and purified by distillation. A steady flow of HClCO was maintained through a cavity ring-down spectrometer and bands of near ultraviolet absorption system were recorded. Three bands, 6^1, 5^16^1 and $2^15^16^1$, showed *a*-type selection rules. However, since the $2^15^16^1$ band showed the clearest rotational structure, it was analyzed to obtain the molecular parameters given in the table.

[a]) All values refer to the $2^15^16^1$ level. The following values were assumed: r(C−Cl) = 1.76 Å, r(C−H) =1.10 Å, θ(H−C=O) = 113.5°.
[b]) Angle between the C−H bond and the ClCO plane.

Ding, H., Orr-Ewing, A.J., Dixon, R.N.: Phys. Chem. Chem. Phys. **1** (1999) 4181.

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