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**Analysis of the Observed OH Prompt Emission Lines of (1,0)
Vibration-Rotation Band in Comet Lee**

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The photodissociation of H_2O in the comae of comets leads to a small fraction of OH molecules in the highly excited rotational states of $A^2\Sigma^+$ which quickly trickle down to $v''=0,1$ of the ground electronic $X^2\Pi$ state. Further cascading from $v''=1$ to $v''=0$ gives rise to prompt emission lines of (1,0) vibration-rotation transitions. These lines have been detected in Comet Lee by Mumma et al.(ApJ 546, 1183, 2001) in the spectral region between 2.9 to 3.8 μm . We have made a spectral synthesis of these observations. The deduced outflow velocity to fit the observations comes out to be in the range of 0.53 to 0.63km/sec.