TRANSITION DIPOLE-MOMENT OF THE NU(3) BAND OF CH3

Abstract: The transition dipole moment of the nu(3) band of the methyl radical has been measured for the first time. A new discharge laser amplitude double modulation method with a difference frequency laser spectrometer and a hollow cathode discharge cell has been used. The CH3 concentration has been estimated from the absorption decay when the discharge is turned off. The transition dipole moment is found to be \( \mu(\nu 3) = 0.029 \pm 0.005 \) D.