LASER-INDUCED FLUORESCENCE SPECTROSCOPY OF TERT- BUTOXY AND 2-BUTOXY RADICALS

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Laser-induced fluorescence (LIF) spectroscopy of tert-butoxy and 2-butoxy radicals formed by laser photolysis was investigated in the wavelength range 330-385 nm. For tert-butoxy, 13 vibronic bands corresponding to the C-O stretching vibration were assigned to two progressions, $\nu_{C-O}$ is $520\pm10$ cm$^{-1}$. Numerous bands remain unassigned. For 2-butoxy, its LIF excitation spectrum consisting of 10 vibronic bands in two progressions were observed for the first time. Two different vibrational frequencies were derived to be $560\pm5$ cm$^{-1}$ and $610\pm5$ cm$^{-1}$, respectively. The former corresponds to the C-O stretching vibration.

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