Supporting Information

Laser-Induced Fluorescence and Dispersed Fluorescence Spectroscopy of Jet-Cooled Isopentoxy Radicals

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Figure S.1. Birge-Sponer plots of the “A” and “B” Bands in the LIF spectrum of isopentoxy.
**Figure S.2.** DF spectrum of the isopentoxy radical obtained by pumping LIF bands A₂. Numbers in parentheses after the pumped LIF bands are relative wavenumbers with respect to the origin band (Band A₀). The asterisked band is due to photolysis laser scattering.
**Figure S.3.** DF spectra of the isopent oxy radical obtained by pumping LIF bands B₀-B₄. The DF spectra are blue-shifted by ground-state vibrational frequencies of the pumped modes. Numbers in parentheses after the pumped LIF bands are relative wavenumbers with respect to the origin band (Band B₀). The asterisked band is due to photolysis laser scattering.
**Figure S.4.** DF spectra of the isopentoxy radical obtained by pumping LIF bands C-L. The DF spectra except that obtained by pumping the CO stretch band (Band L) are blue-shifted by ground-state vibrational frequencies of the pumped modes. Numbers in parentheses after the pumped LIF bands are relative wavenumbers with respect to the origin band (Band C). The asterisked band is due to photolysis laser scattering.
Figure S.5. Scans of $\tilde{X}$- and $\tilde{B}$-state potential energy surfaces of the isopentoxy radical along the coordinates of the OC$_1$C$_2$C$_3$ and C$_1$C$_2$C$_3$H dihedral angles.
Figure S.6. LIF spectrum that contains transitions of formaldehyde, a product of $\beta$ C-C fission of isopentoxy.