Supporting Information

**A Synchrotron-Based Vacuum Ultraviolet Photoionization Mass Spectrometer-Coupled Microreactor to Probe Thermocatalysis**

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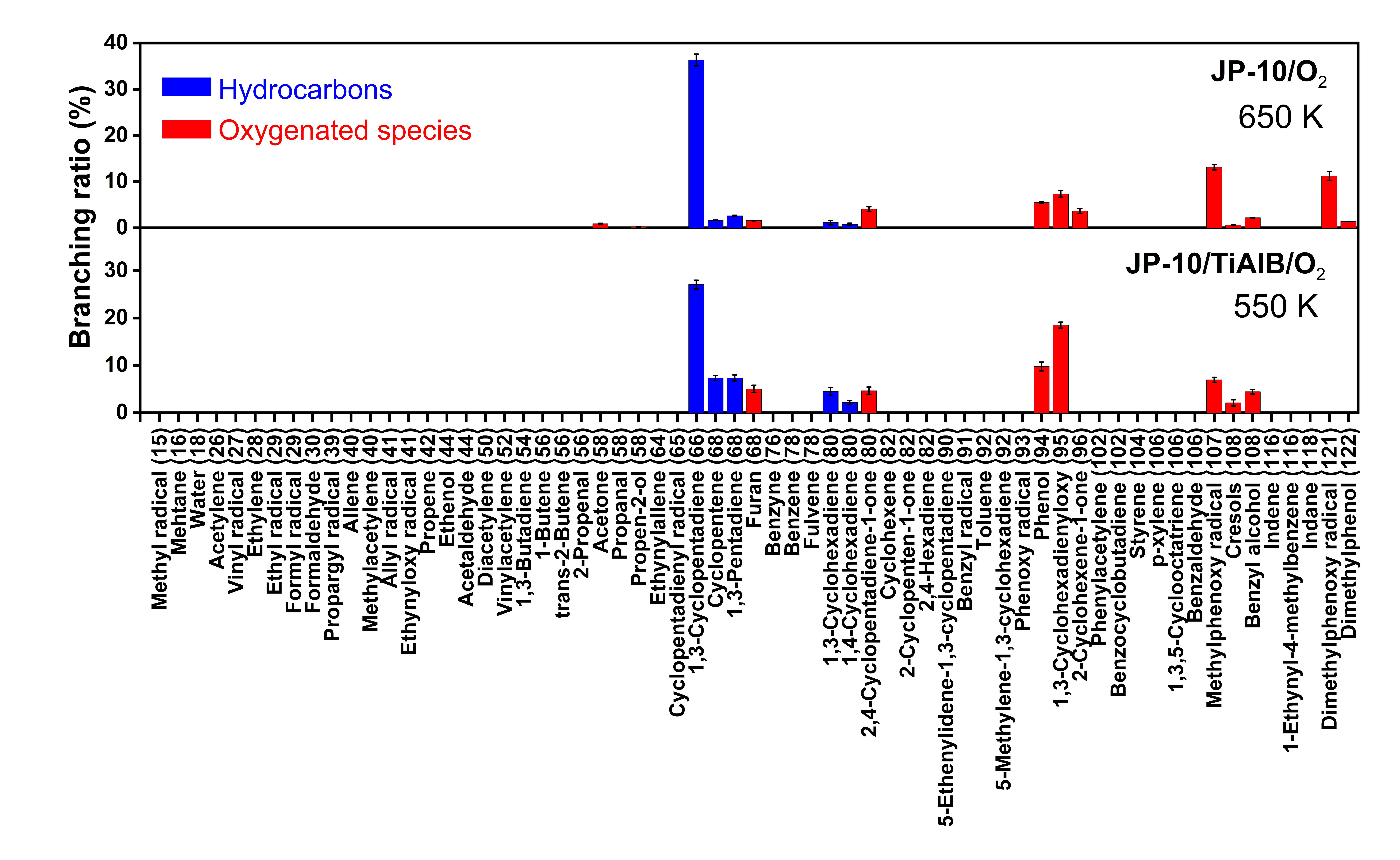
**Figure S1.** Mass spectra of the products formed upon thermocatalytic oxidative decomposition of JP-10 over Ti-Al-B NP recorded at a photon energy of 15.4 eV in the 550 - 950 K temperature range for m/z upto 30 amu.

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**Figure S2.** PIE curves of oxidation products upon thermocatalytic oxidative decomposition of JP-10 over Ti-Al-B NP at 950 K.

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**Figure S3.** PIE curves of hydrocarbon products upon thermocatalytic oxidative decomposition of JP-10 over Ti-Al-B NP at 950 K.



**Figure S4.** Branching ratios of the catalytically decomposed products for the oxidative decomposition of JP-10 with and without Ti-Al-B NP at initial temperatures of 550 K and 650 K, respectively.