

## Supporting Information

# Indoor Formaldehyde Removal by Thermal Catalyst: Kinetic Characteristics, Key Parameters and Temperature Influence

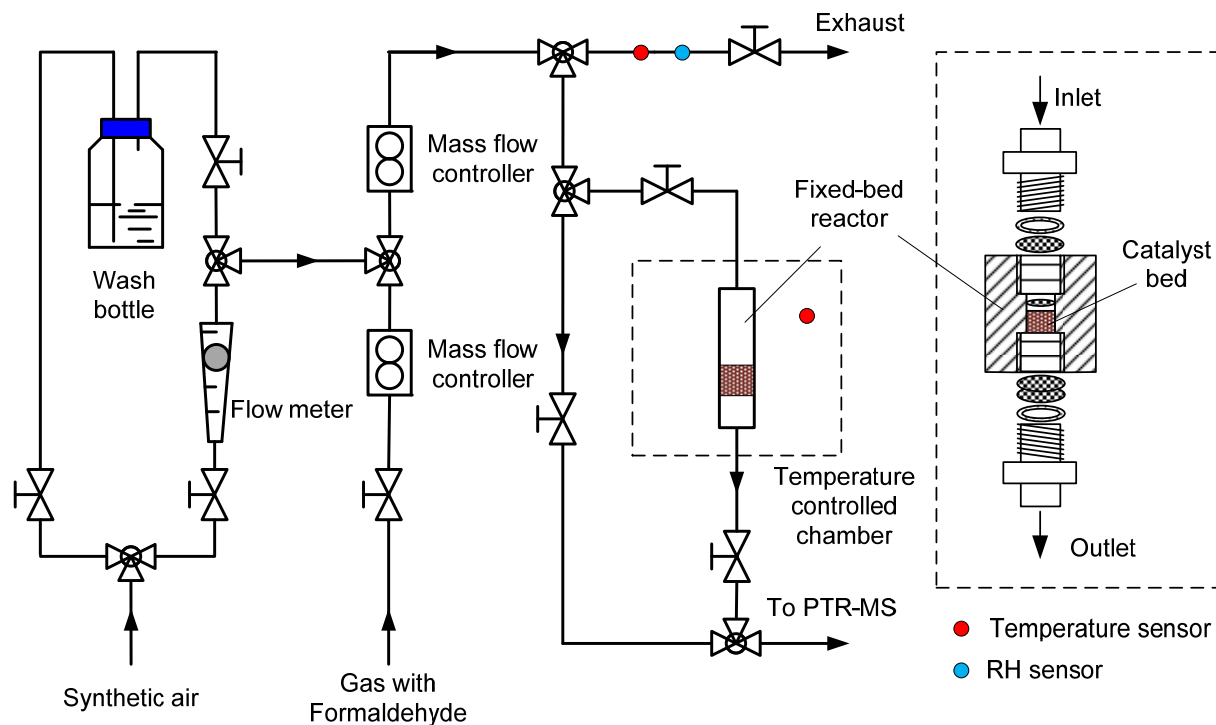
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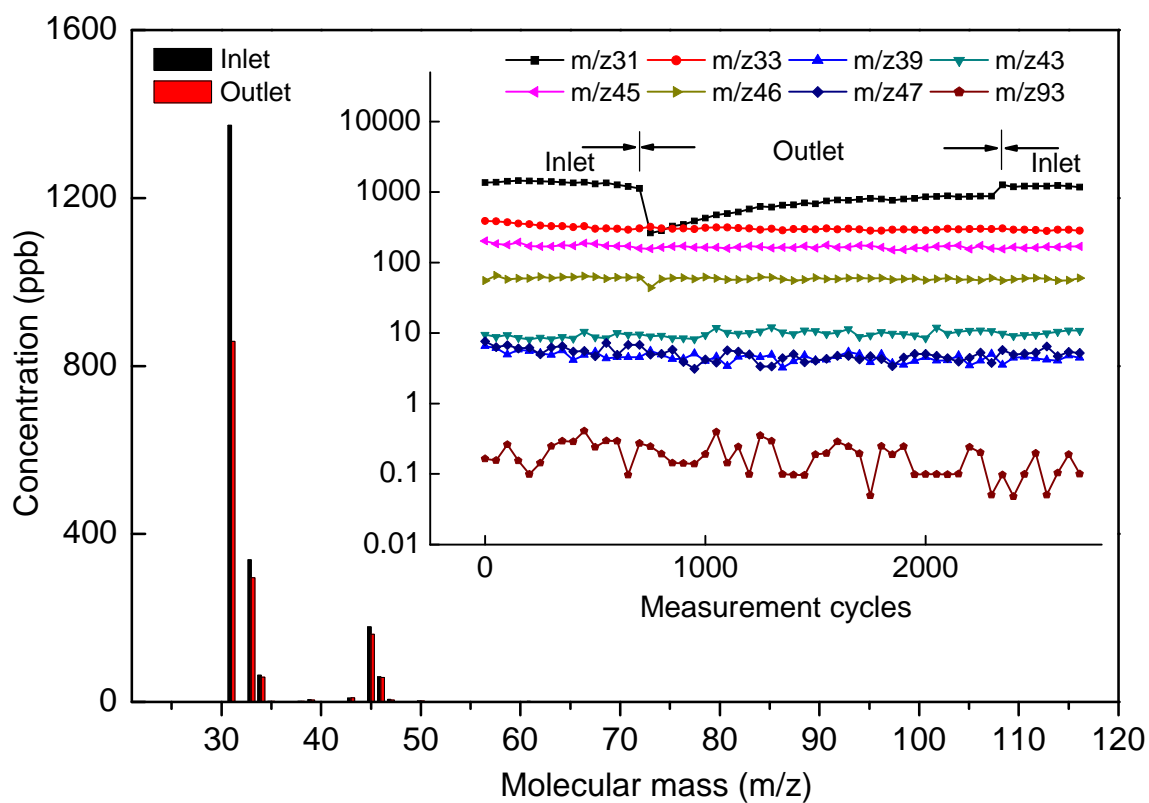
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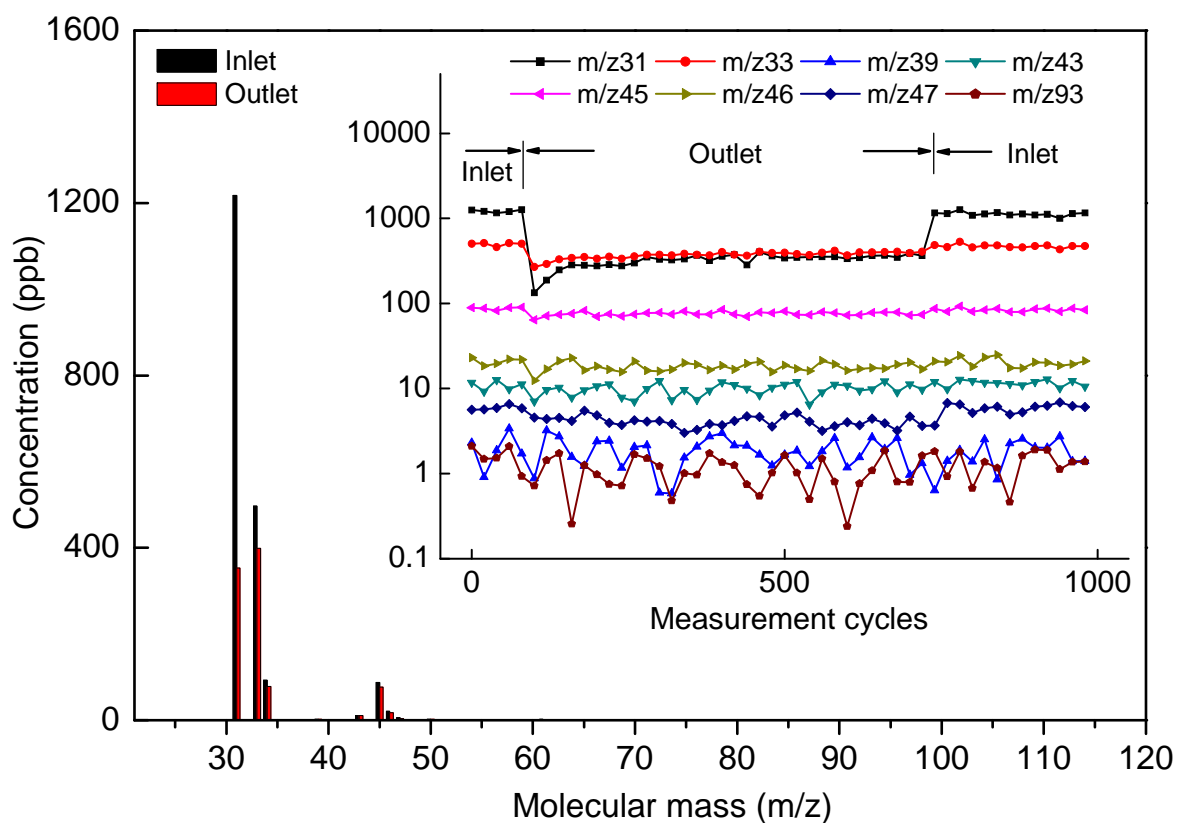
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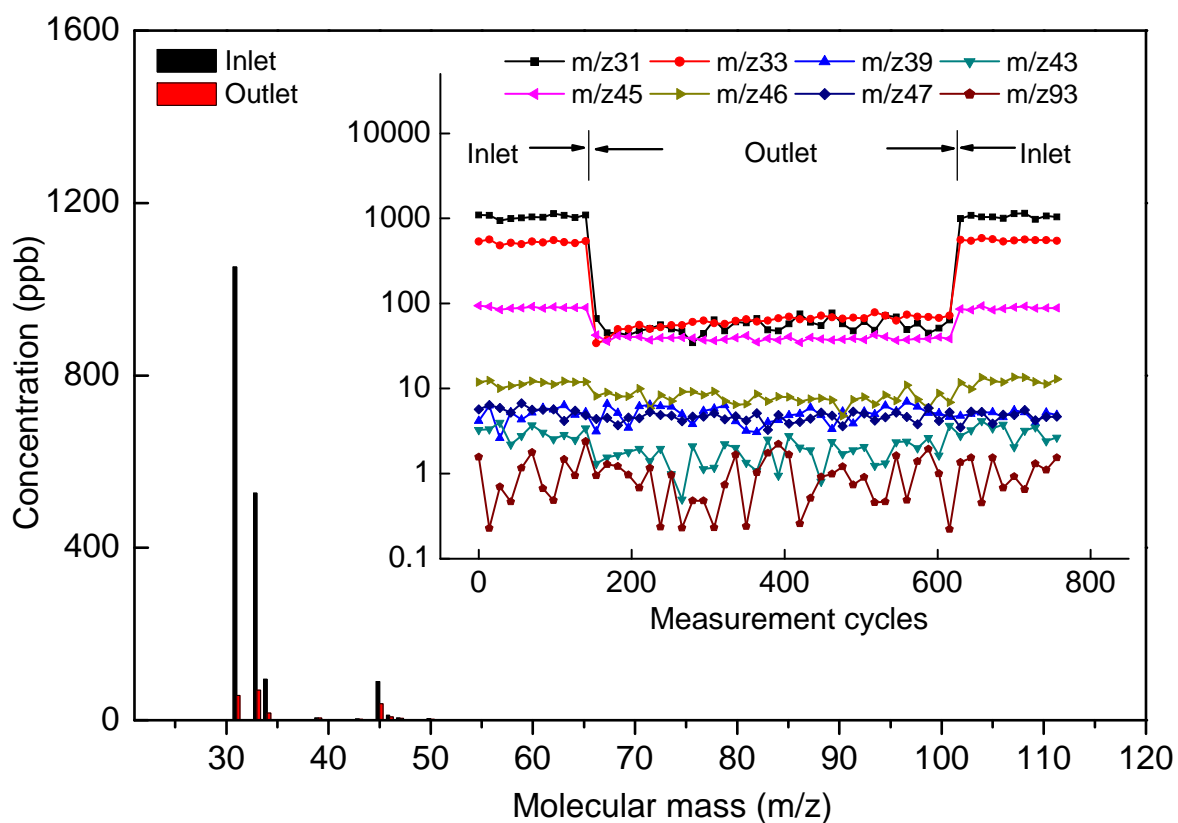
**Figure S1.** Schematic of the experimental setup and fixed-bed reactor.



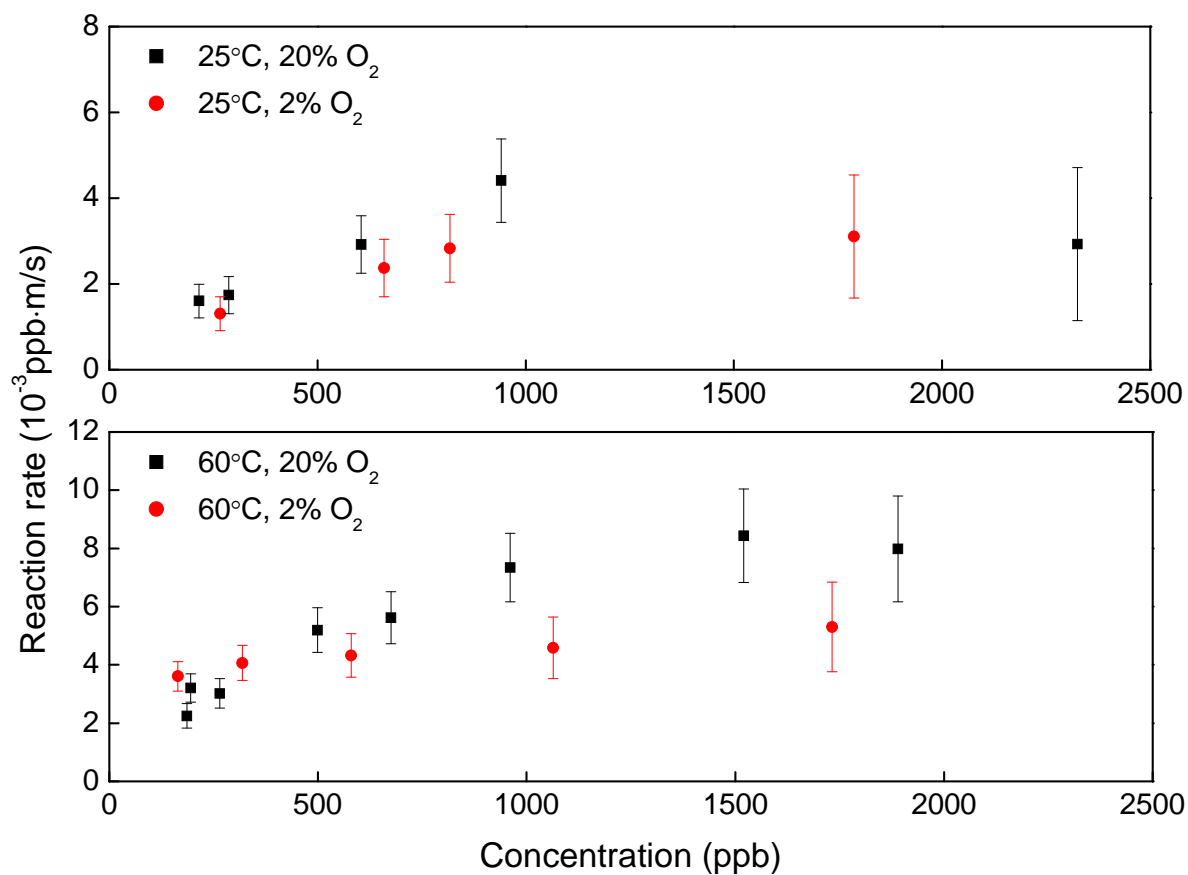
**Figure S2.** The mass scan result of PTR-MS from  $m/z$  21 –  $m/z$  120 at 25°C. Ion source masses ( $m/z$  21, 30, 32 and 37) are excluded. The figure inside shows some monitored signals during oxidation process.



**Figure S3.** The mass scan result of PTR-MS from  $m/z$  21 –  $m/z$  120 at 100°C. Ion source masses ( $m/z$  21, 30, 32 and 37) are excluded. The figure inside shows some monitored signals during oxidation process.



**Figure S4.** The mass scan result of PTR-MS from  $m/z$  21 –  $m/z$  120 at 180°C. Ion source masses ( $m/z$  21, 30, 32 and 37) are excluded. The figure inside shows some monitored signals during oxidation process.



**Figure S5.** The reaction rate of different surface formaldehyde concentrations under O<sub>2</sub> 20 vol% and O<sub>2</sub> 2 vol%; N<sub>2</sub> balance; GHSV 4.43×10<sup>6</sup> h<sup>-1</sup>; water vapor concentration 7500 ppm.