

Heterogeneous and Photochemical Reactions of Solid Benzophenone–Catechol Films with NO₂.

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Supplemental Information.

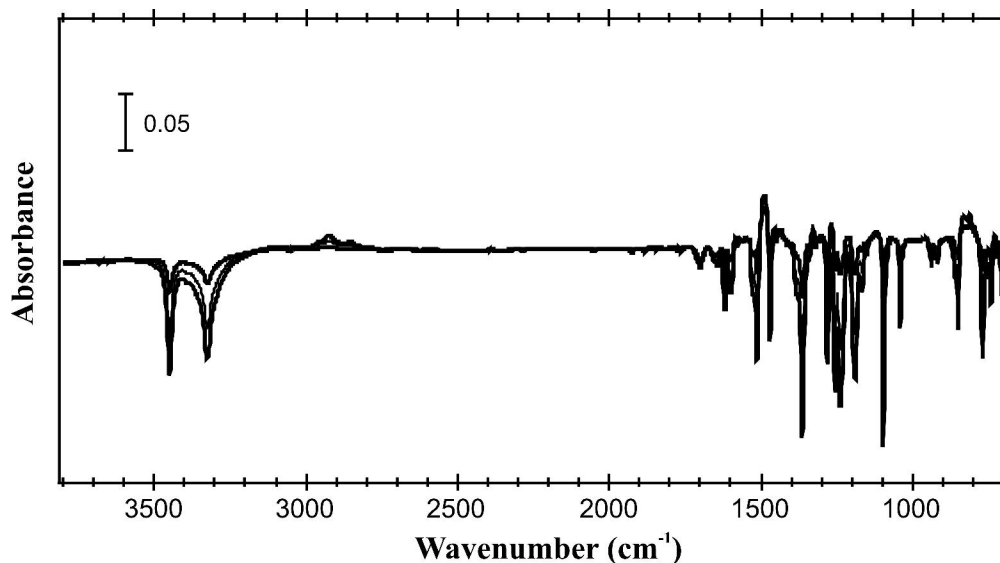


Figure S1. Reaction spectra for pure catechol films exposed to NO₂ concentrations up to 2.23×10^{13} molecules cm⁻³ (equivalent to 907 ppb) at 300 K and 20% RH. Final spectrum recorded at 90 minutes. Negative peaks, including O-H stretching vibrations, correspond to sublimation of catechol. No absorbance peaks associated condensed-phase reaction products were detected. Similar results were obtained for both dark and light conditions.

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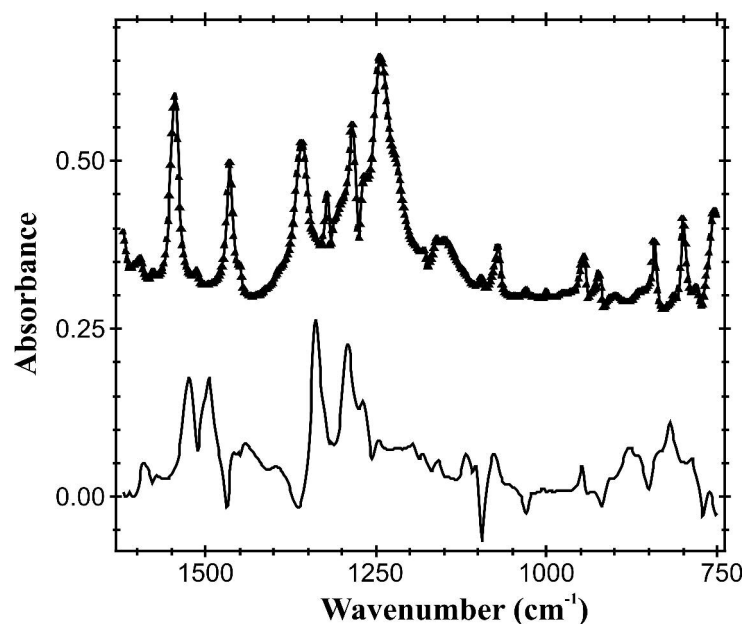


Figure S2. Comparison of typical dark reaction spectrum (bottom) with spectrum of 3-nitro catechol in a benzophenone mixture (with benzophenone peaks subtracted out). The maximum allowable contribution of 3-nitro catechol in the reaction spectrum is < 13% by mass compared to 4-nitro catechol spectrum.

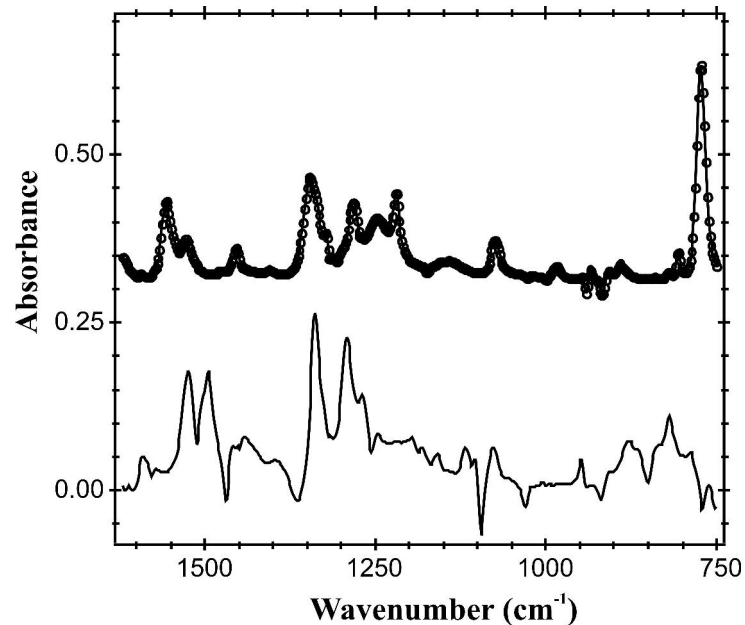


Figure S3. Comparison of typical dark reaction spectrum (bottom) with spectrum of 3,5-dinitro catechol in a benzophenone mixture (with benzophenone peaks subtracted out). The maximum allowable contribution of 3-nitro catechol in the reaction spectrum is < 9% by mass.