

Supporting Information

Catalytic combustion of toluene over CeO₂–CoO_x composite aerogels

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The carbon balance (B_c) mentioned in Section 2.3 can be calculated using the following equation:

$$B_c = \frac{n_{CO_2,out} + 7n_{toluene,out}}{n_{toluene,in}}$$

$n_{i,in}$ = the concentration of component i in the feed;

$n_{i,out}$ = the concentration of component i in the outlet of reactor;

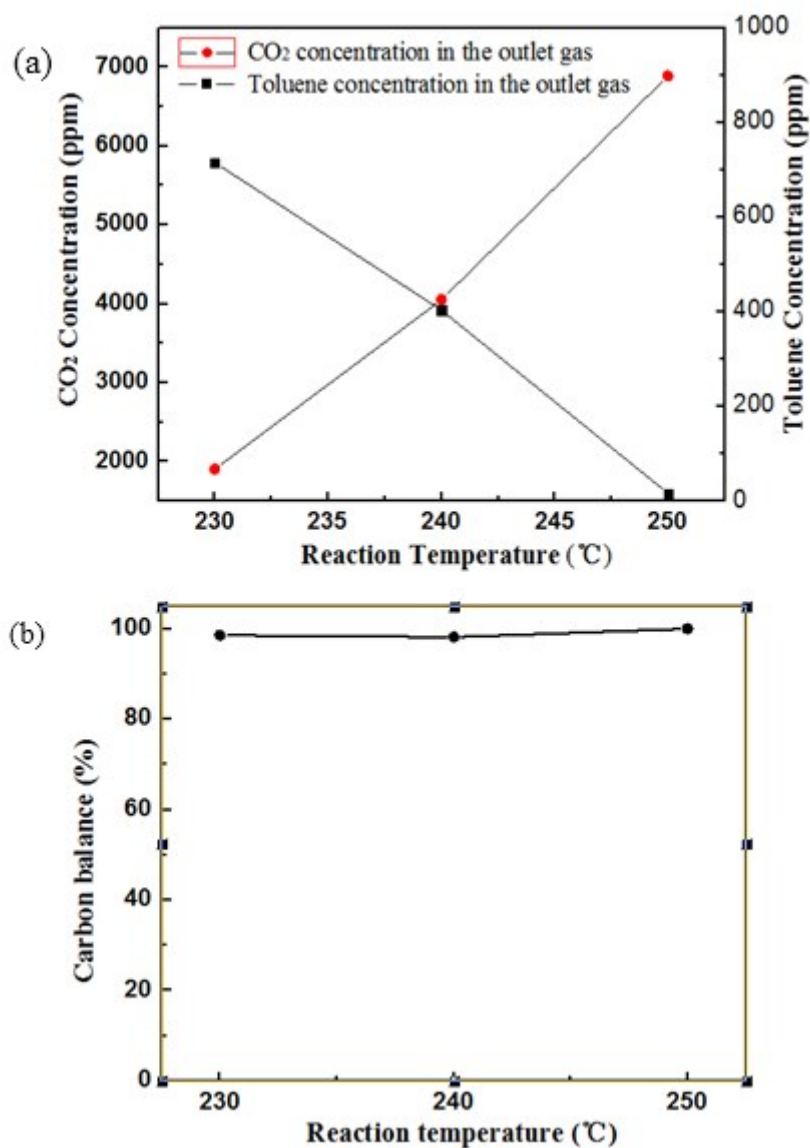


Figure S1. (a) CO and CO₂ concentration in the products at different test conditions calculated from chromatograph equipped with a TDX-01 (b) Statistical results of Carbon Balance at different temperature. Reaction conditions: catalyst:CeO₂-CoO_x-10; catalyst weight=100 mg; reaction gas composition: 1000ppm toluene, 20 vol% O₂/N₂.