



## 19 CAPTIONS FOR FIGURES

20 Figure S1. Ratio  $I_{565}/I_{1089}$ , and  $I_{661}/I_{1089}$  at increasing cobalt oxide contents (arbitrary  
21 units) (Co-O bands/Si-O band ratio).

22 Figure S2. FTIR subtraction spectra of surface species arising from low temperature  
23 CO adsorption.

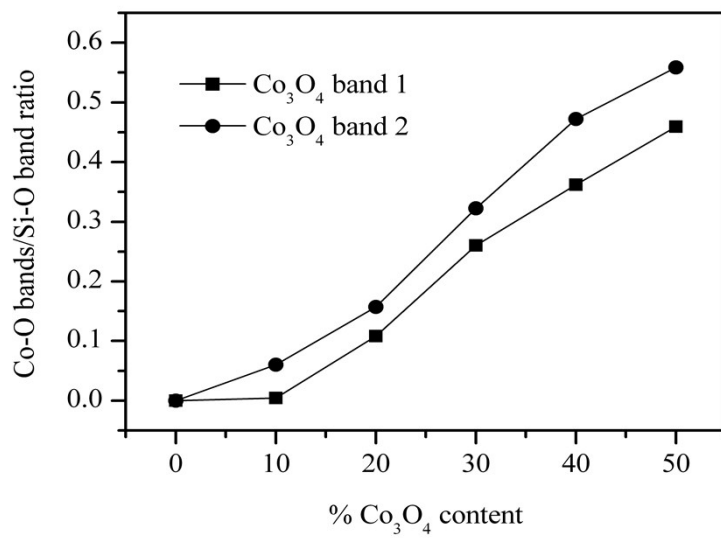
24 Figure S3. FTIR subtraction spectra of surface species arising from DCP adsorption  
25 and reaction (without air).

26 Figure S4. FTIR subtraction spectra of gas phase species arising from DCP adsorption  
27 and reaction (without air).

28 Figure S5. FTIR surface spectra of sample 30Co/SBA following DCP oxidation  
29 (without air).

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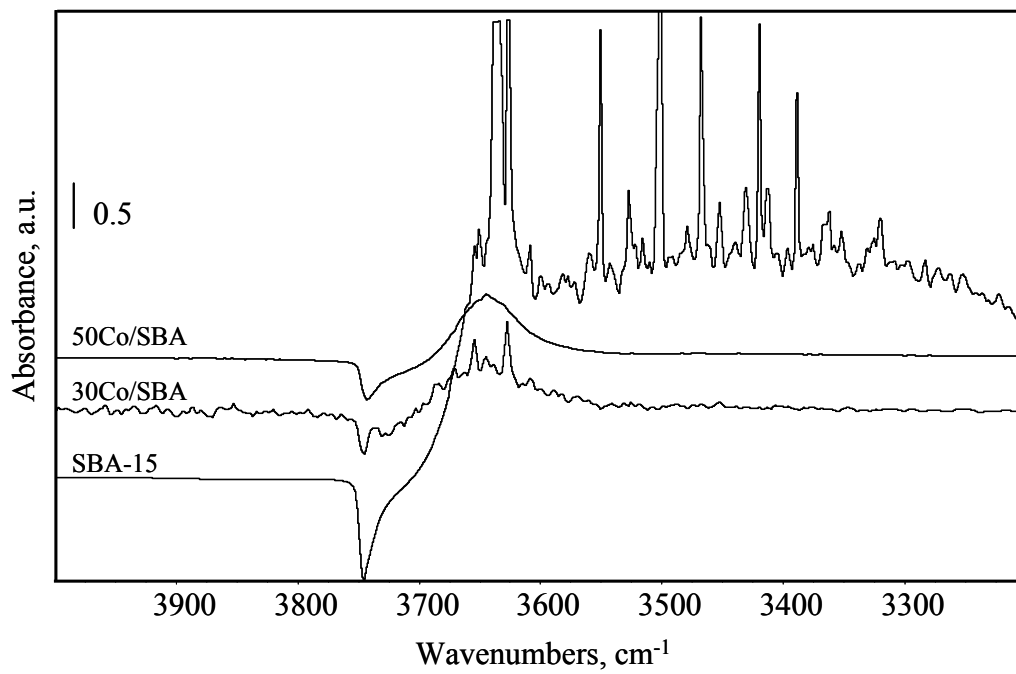
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FIGURE S1

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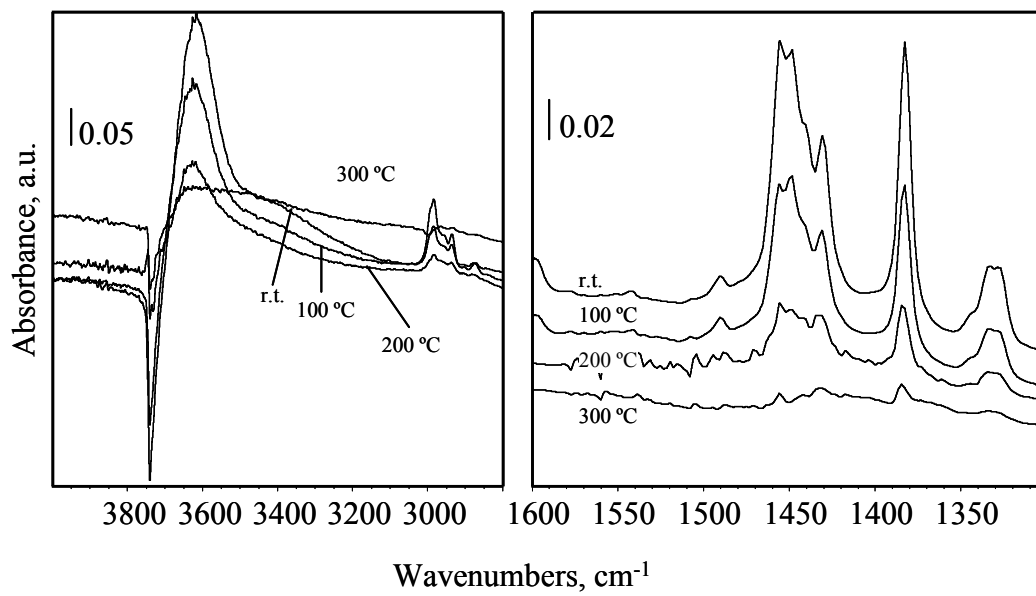
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FIGURE S2

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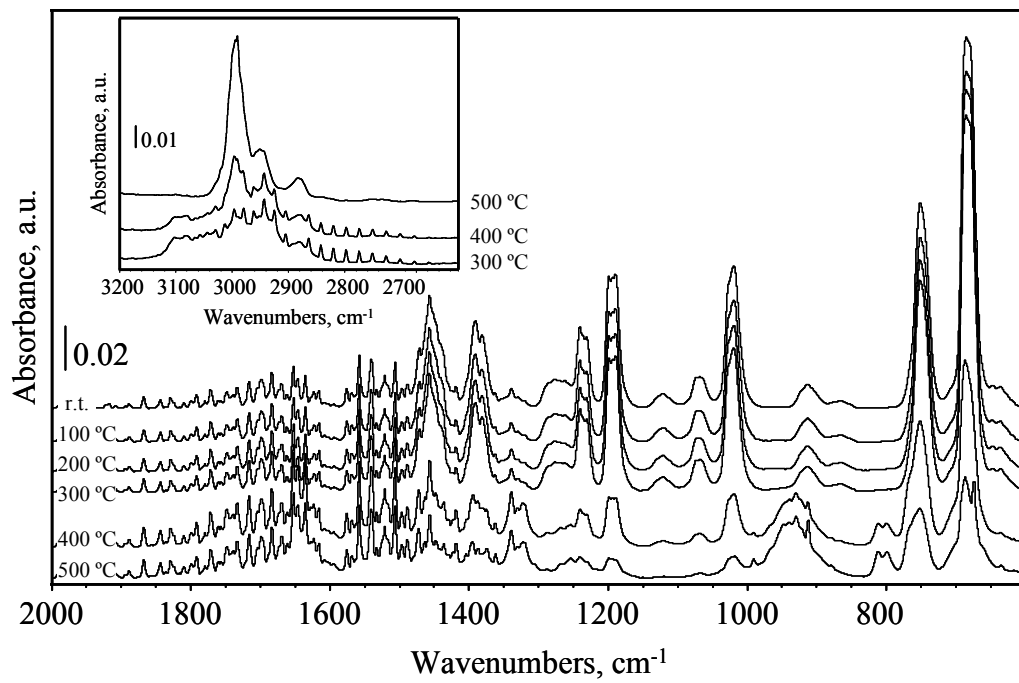
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FIGURE S3

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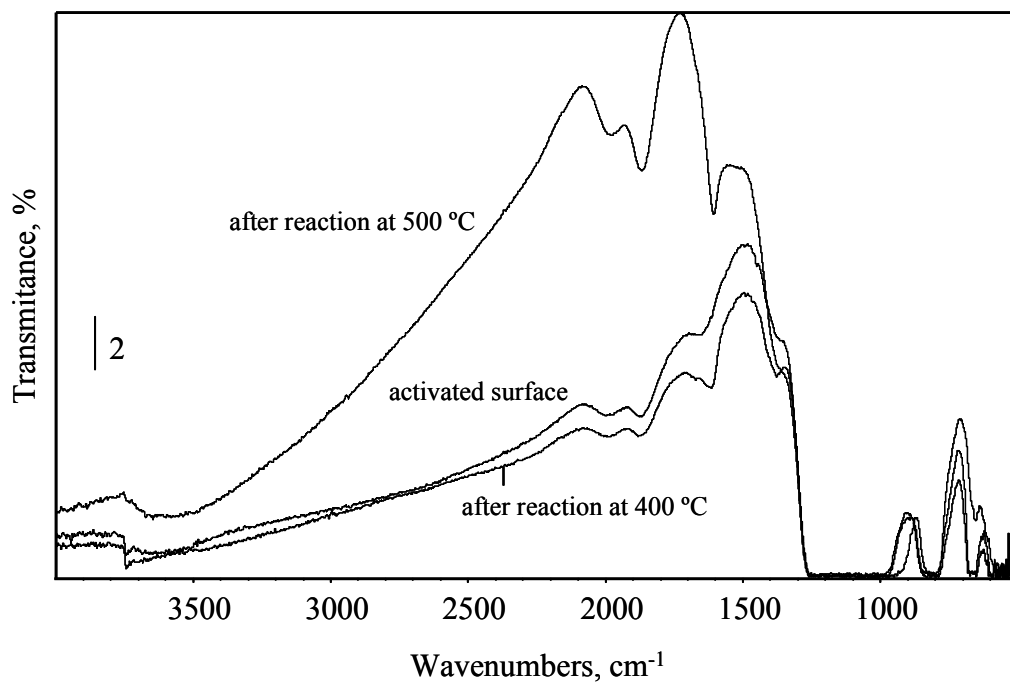
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FIGURE S4

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FIGURE S5