

## Supporting Information

### Oxygen Storage Capacity versus catalytic activity in the CO and HCl oxidation: A Case study of Ceria-Zirconia solid solution

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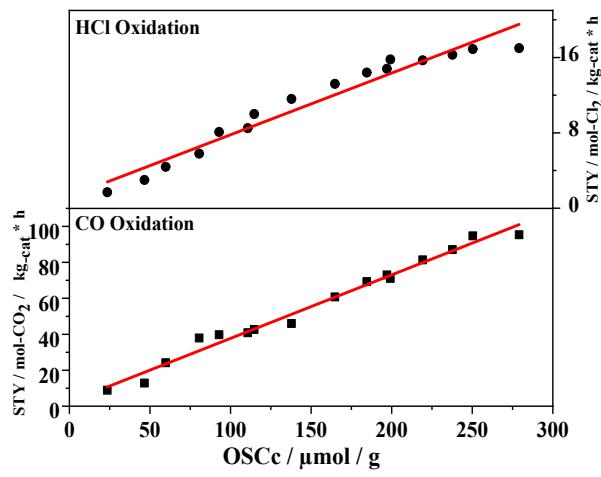
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**Table S1.** The BET surface area of CZ080 with different reaction time. The reaction temperature during the reaction was 430 °C and the reaction condition: Ar: HCl: O<sub>2</sub> = 7:1:2. A total flow rate of 15sccm was applied. The mass of catalyst is 120mg.

Samples	BET Surface Area- Fresh/ m <sup>2</sup> /g	Pore Volume / cm <sup>3</sup> /g
CZ080	44	0.164
CZ080-0.5h	37	0.145
CZ080-2h	37	0.147
CZ080-4h	36	0.156
CZ080-8h	38	0.156
CZ080-24h	36	0.157



**Figure S1:** HCl oxidation activity of the as-prepared CZxxx samples (xxx = 0 -100) versus their respective plain and complete oxygen storage capacity (OSC<sub>c</sub> and OSC, respectively).