

Supporting Information

Au-CeO₂-based nanocatalysts supported on SBA-15 for preferential oxidation of carbon monoxide (PrOx-CO)

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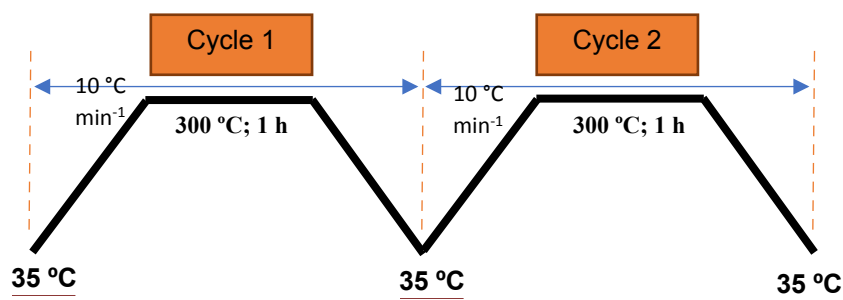


Figure S1: Catalytic test scheme.

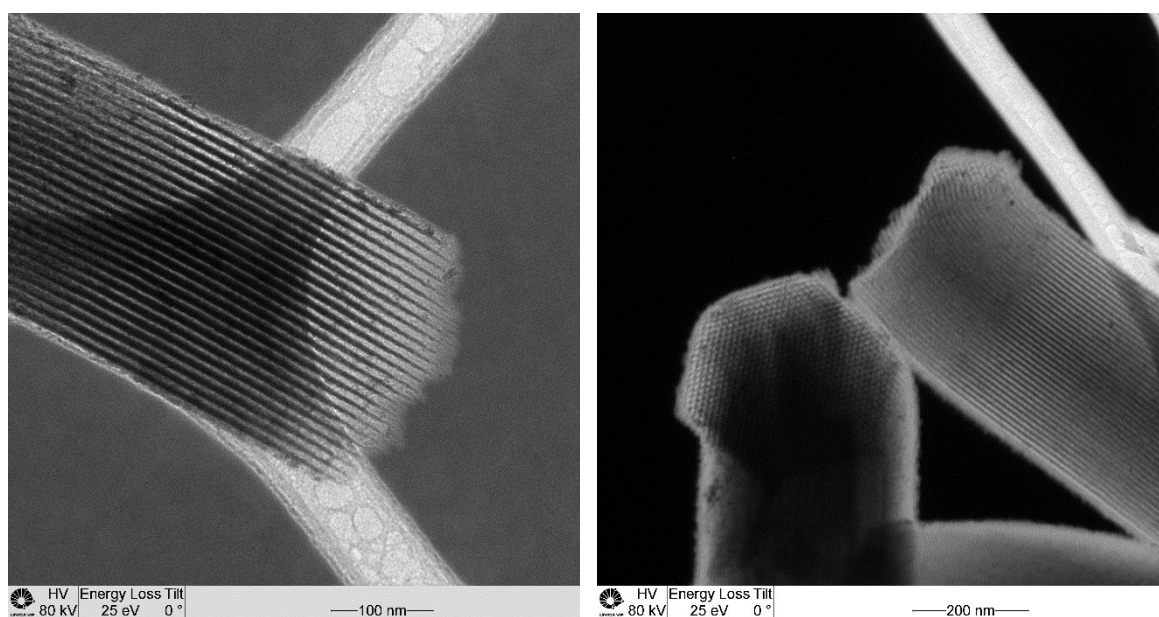


Figure S2: TEM images in Dark Field mode obtained for SBA-15, highlighting the highly ordered porous structure.

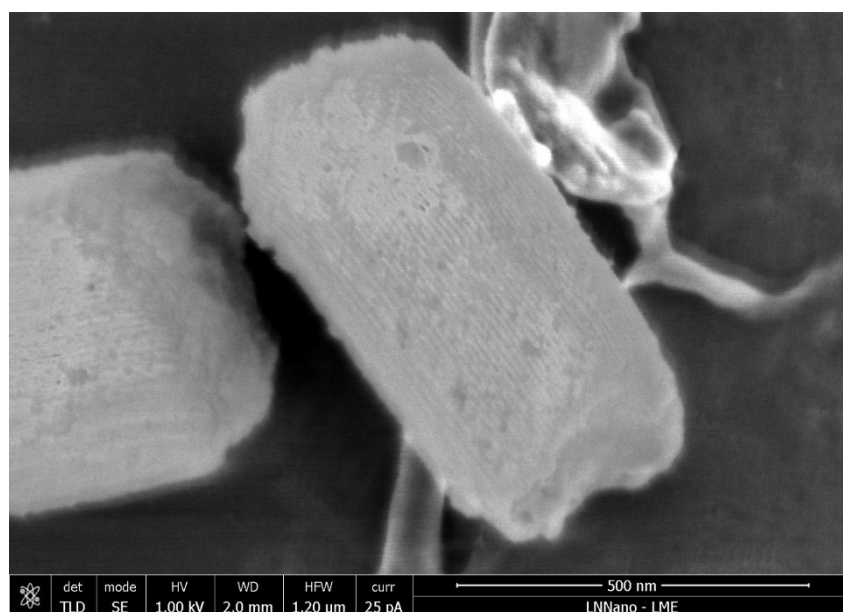


Figure S3: SEM image of the SBA-15, in which the hexagonal facets can be observed.

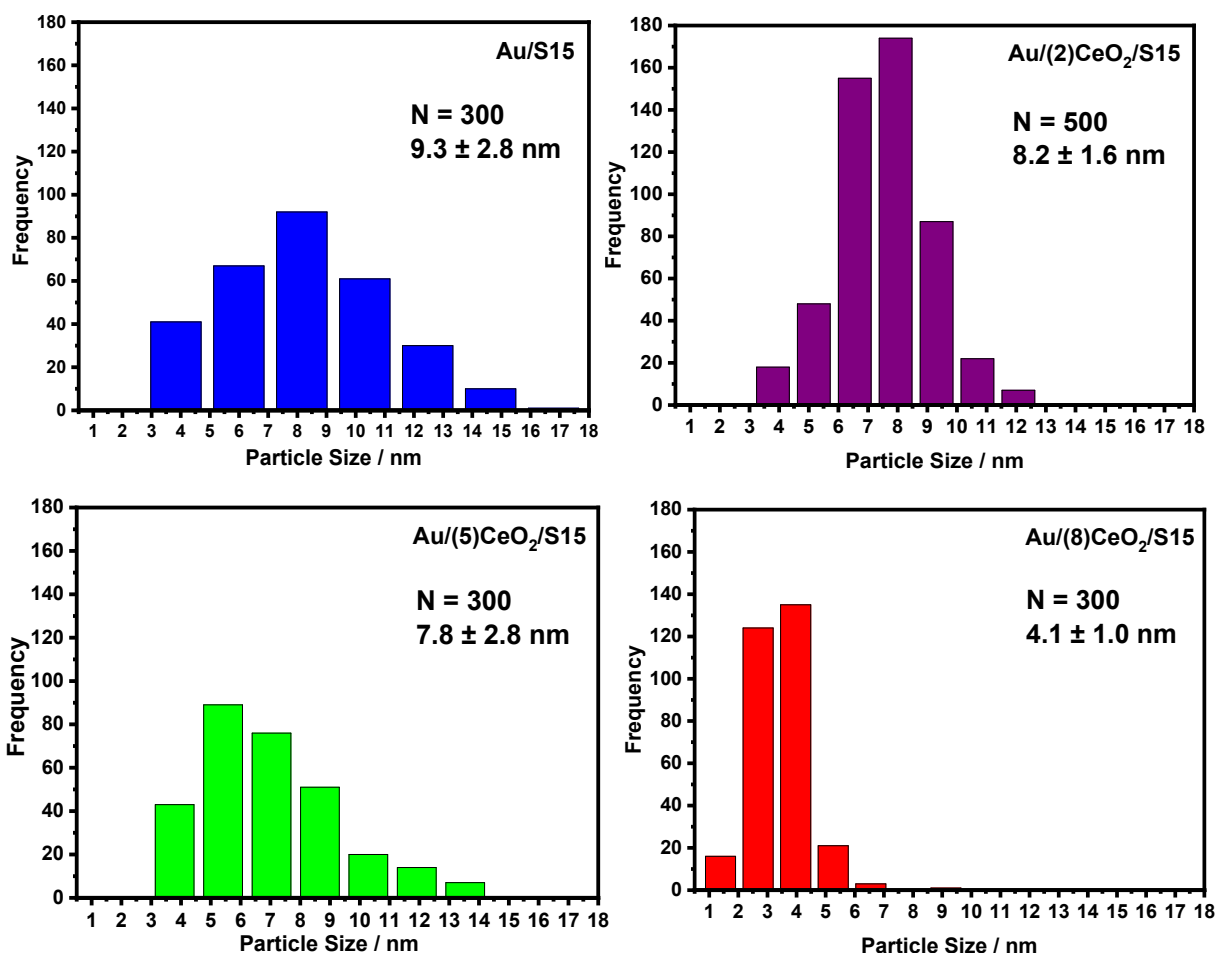


Figure S4: Particle size distributions obtained from the TEM images of the samples Au/S15 and Au/(x)CeO₂/S15, where x = 2, 5 or 8.

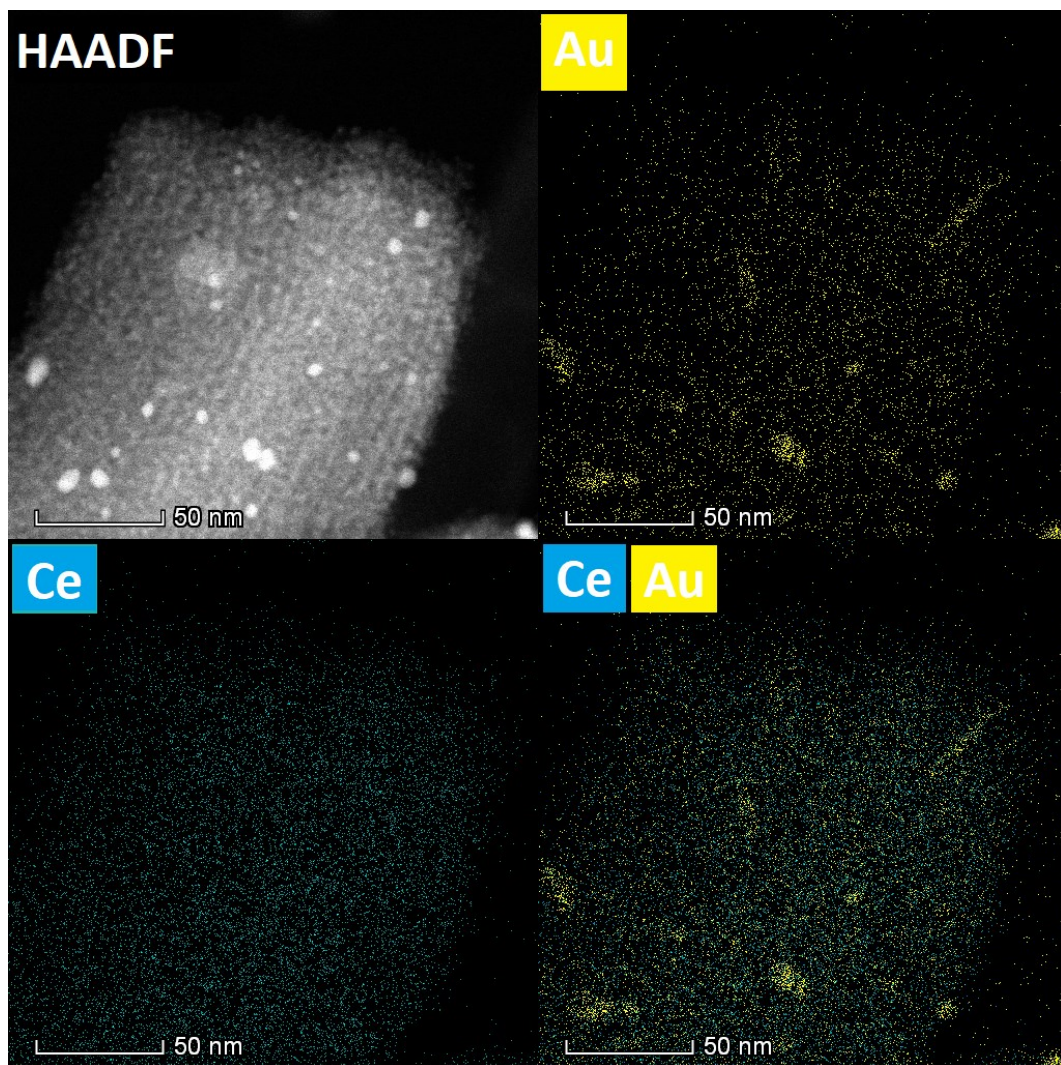


Figure S5: EDS mapping of the sample Au/(5)CeO₂/S15 showing the Ce and Au distributions.

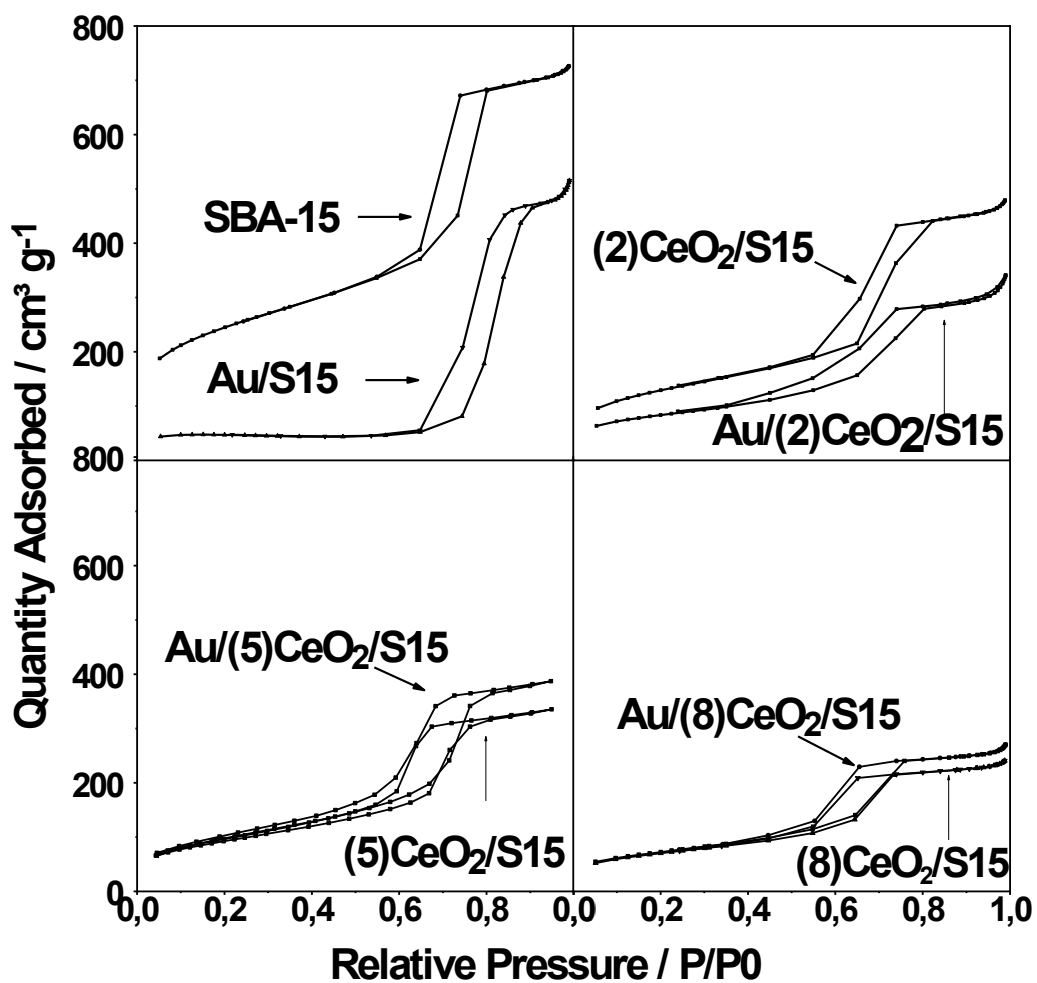


Figure S6: N₂ physisorption isotherms obtained for SBA/15, Au/S15 and Au/(x)CeO₂/S15.

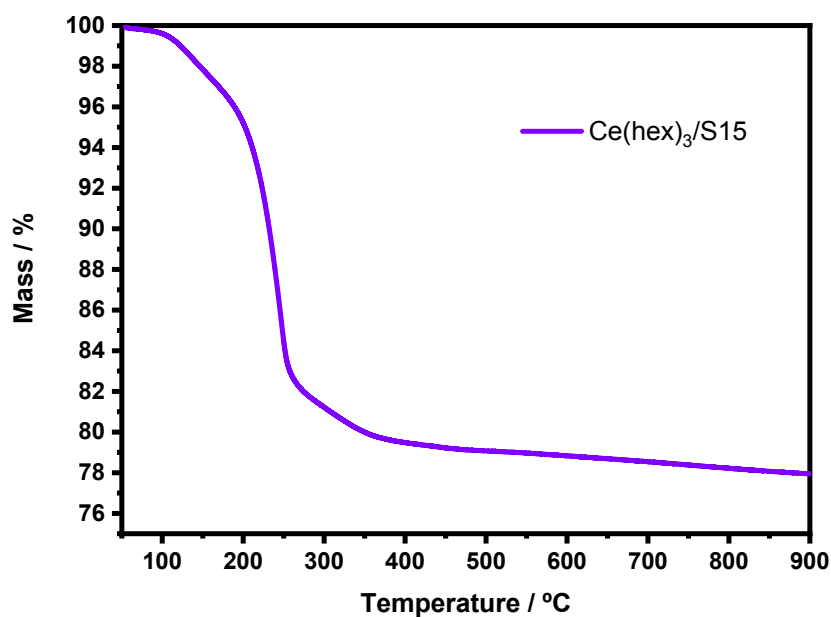


Figure S7: Thermogravimetric analysis of SBA-15 impregnated with Ce(III) 2-ethylhexanoate in hexane 0.75 mol L⁻¹.

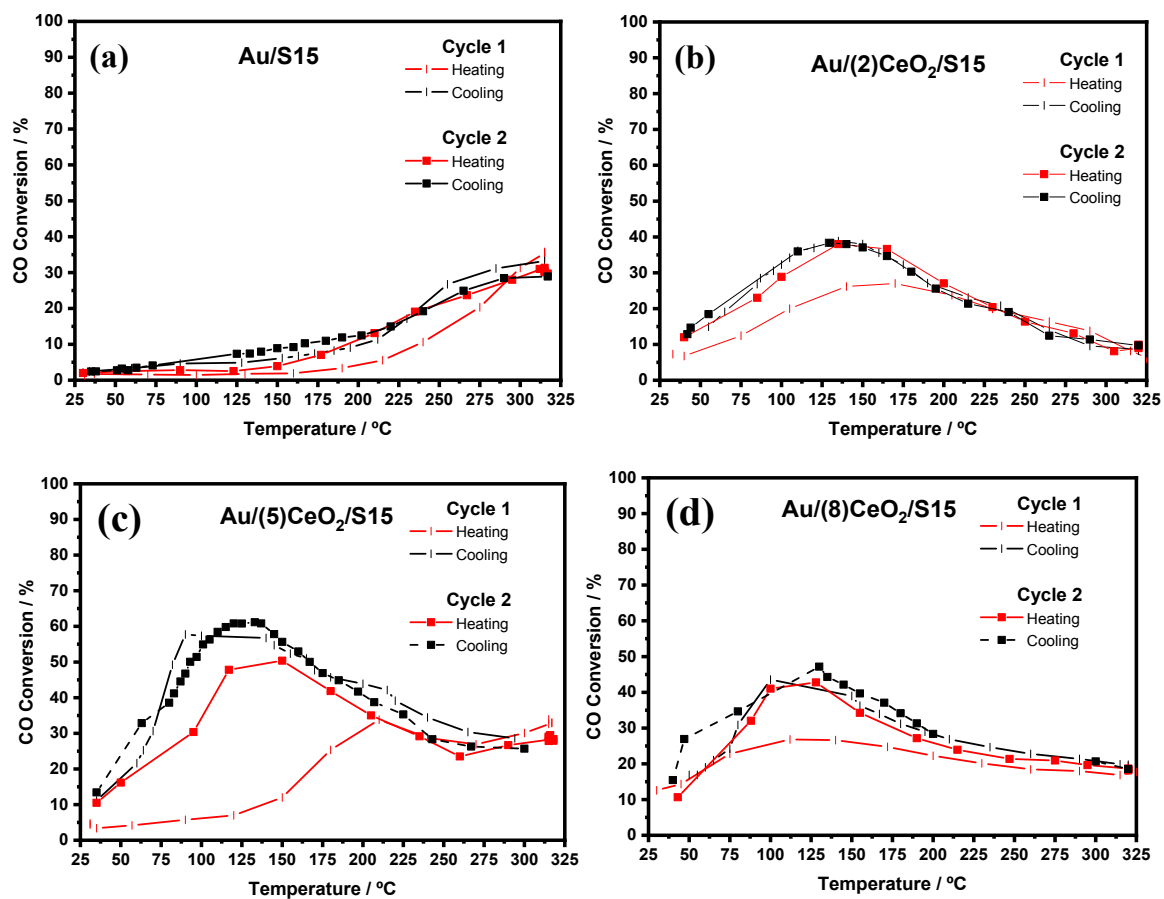


Figure S8: CO conversion (%) for the samples (a) Au/S15, (b) Au/(2)CeO₂/S15, (c) Au/(5)CeO₂/S15, (d) Au/(8)CeO₂/S15.

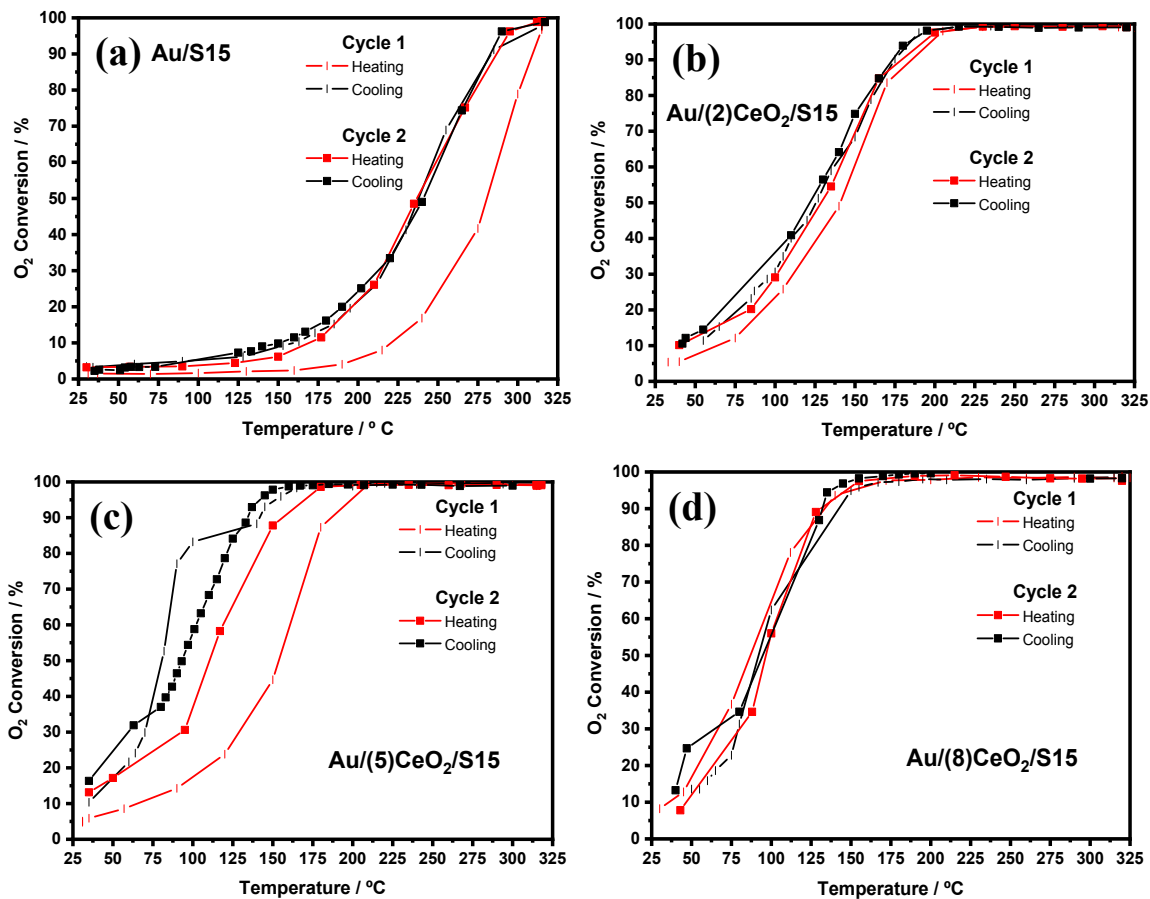


Figure S9: O₂ conversion (%) for the samples (a) Au/S15, (b) Au/(2)CeO₂/S15, (c) Au/(5)CeO₂/S15, (d) Au/(8)CeO₂/S15.

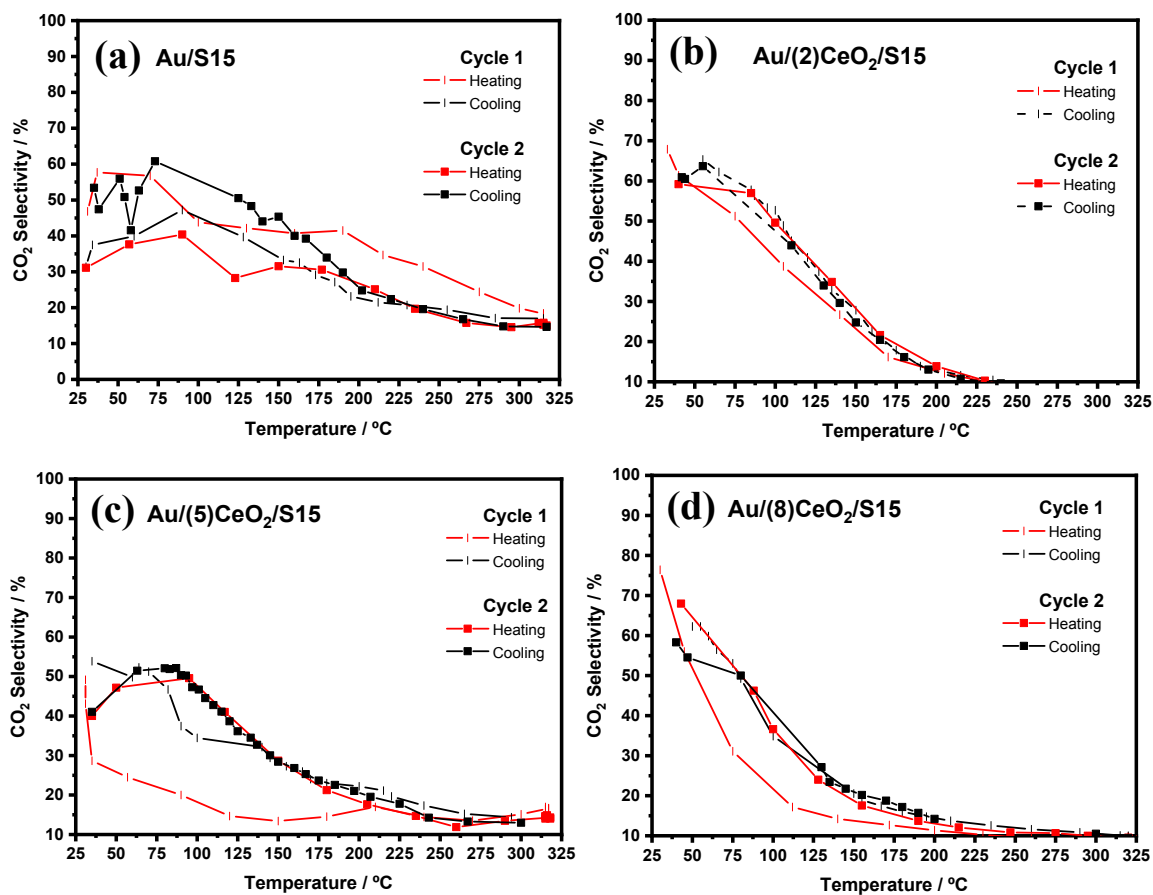


Figure S10: CO₂ selectivity (%) for the samples (a) Au/S15, (b) Au/(2)CeO₂/S15, (c) Au/(5)CeO₂/S15, (d) Au/(8)CeO₂/S15.

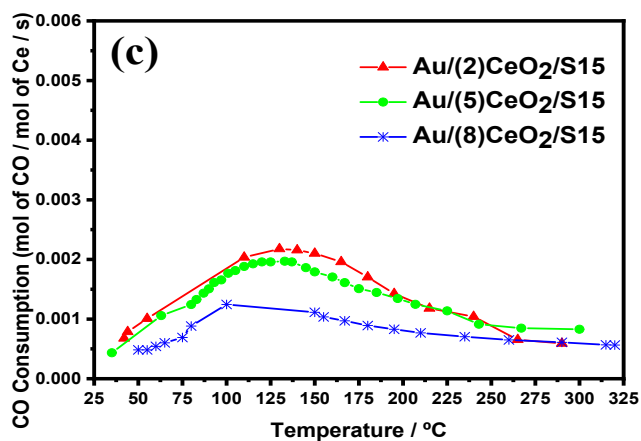
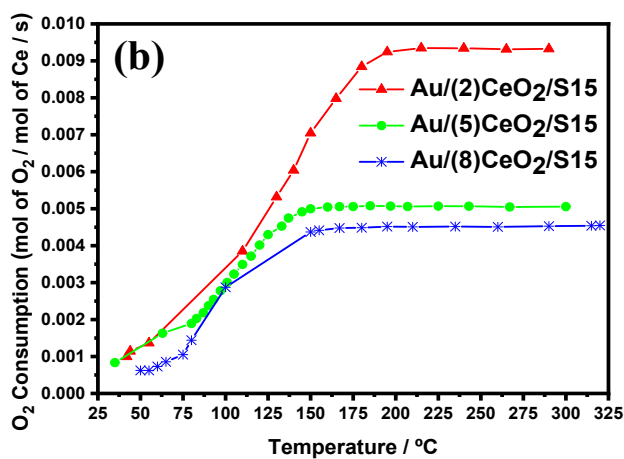
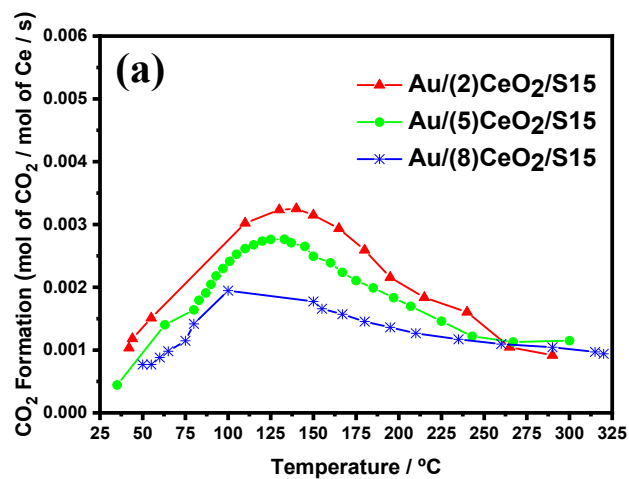


Figure S11: (a) CO consumption (mol of CO / mol of Ce / s), (b) CO₂ formation (mol of CO₂ / mol of Ce / s) and (c) O₂ consumption (mol of O₂ / mol of Ce / s) for Au/(x)CeO₂/S15.

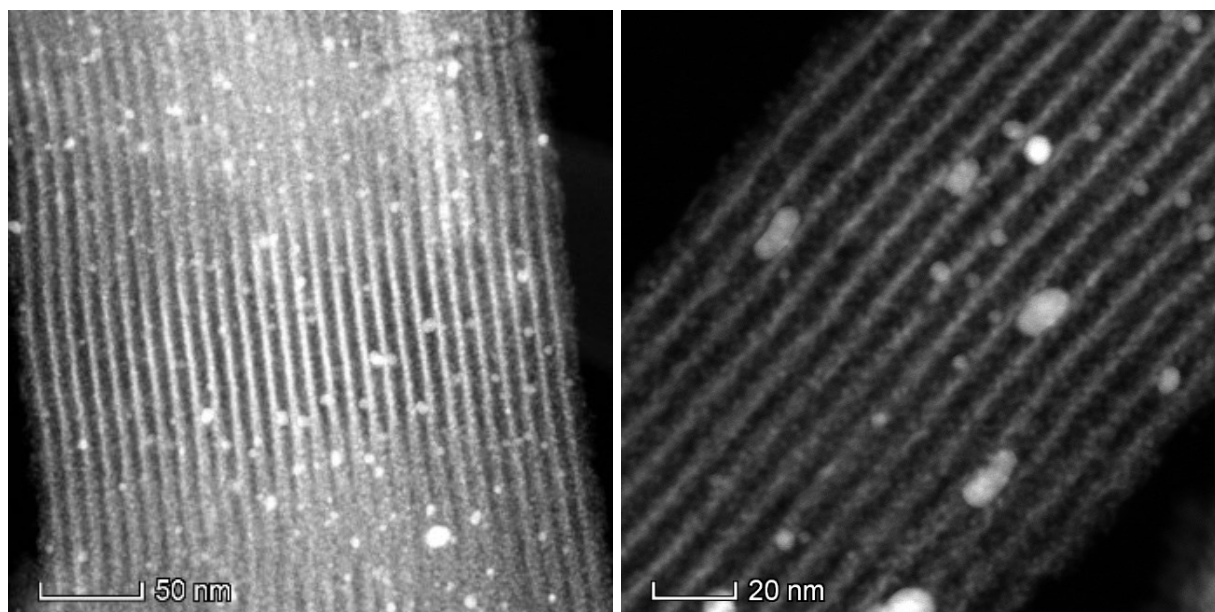


Figure S12: TEM image of the sample Au/(5)CeO₂/S15, before (left) and after (right) PrOx-CO reaction.