Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A.

Supporting Information:

Synthesis of hollow structured core-shell Au@CeO_2-ZrO_2 nanocatalyst and its excellent catalytic performance

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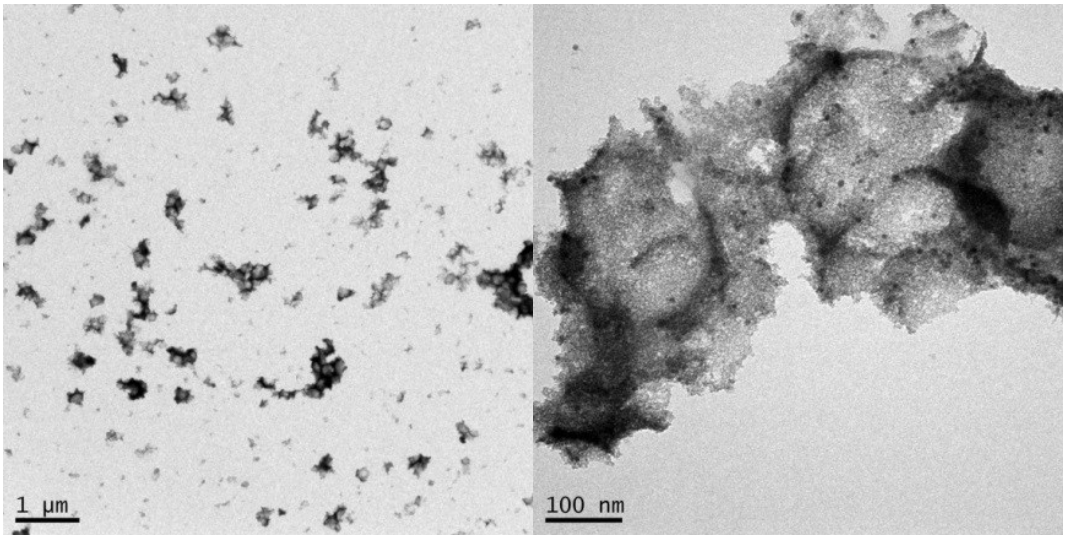

Figure S1. TEM images of the sample synthesized with PVP-stabilized Au NPs.

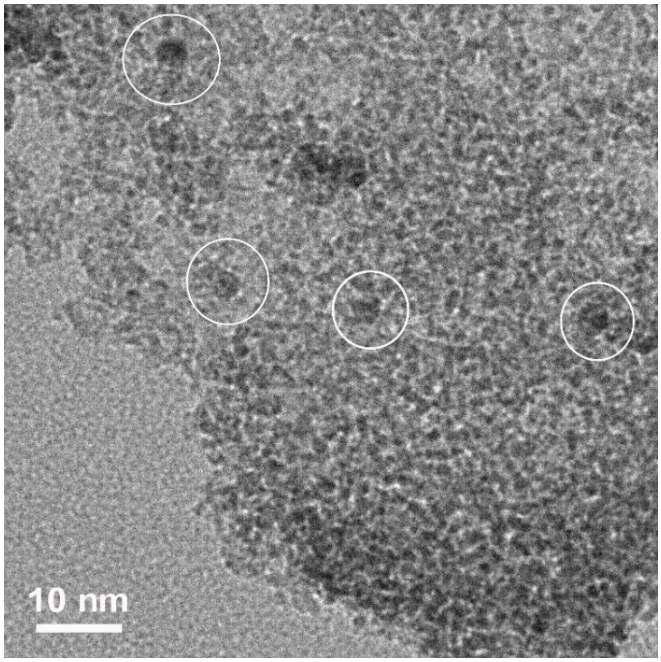

Figure S2. TEM image of the hollow Au@CeO_2-ZrO_2 nanocatalyst. White circles indicate the sub-10 nm core-shell structure, in which individual Au nanoparticle was encapsulated by the surrounding CeO_2-ZrO_2 nanocrystals.

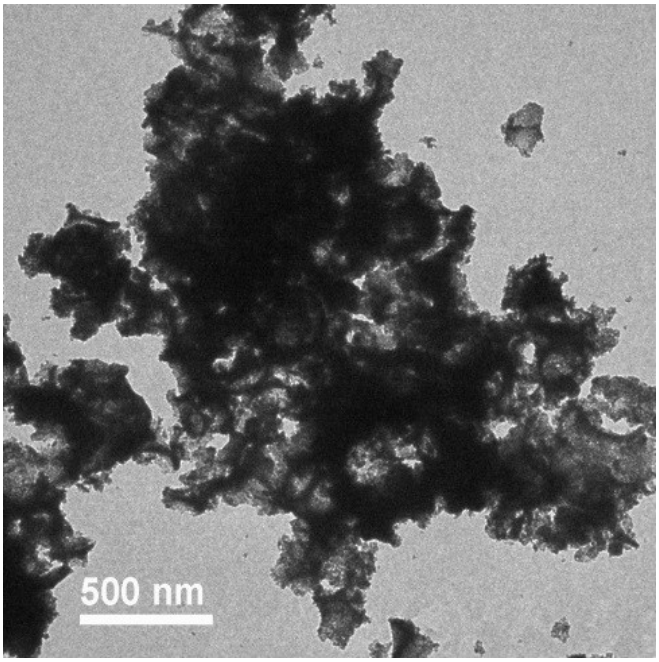

Figure S3. TEM image of the Au@CeO_2-ZrO_2 catalyst used repeatedly 5 times in the selective reduction of 4-NP.

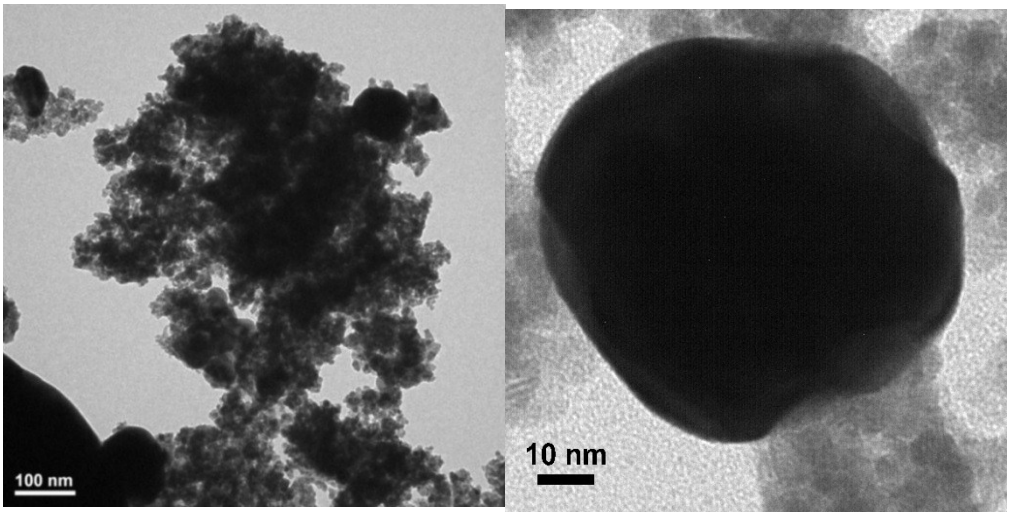

Figure S4. TEM image of physically mixed sample of Au NPs and nanosized CeO_2-ZrO_2. The image clearly showed aggregated Au particles in the sample.

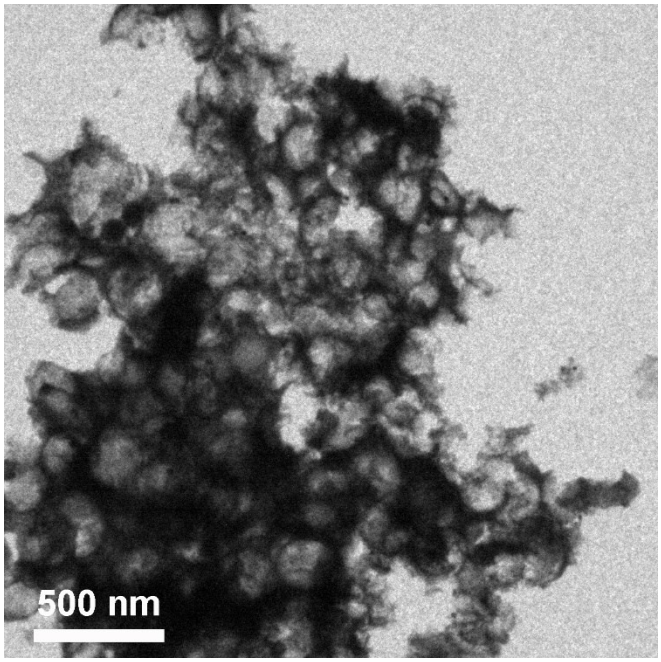

Figure S5. TEM image of Au@CeO_2-ZrO_2 sample used in the CO oxidation at 200 °C for 18 h.