

Supplementary Materials

Effect of the Chemical Composition of Mesoporous Cerium-Zirconium Oxides on the Modification with Sulfur and Gold Species and Their Application in Glycerol Oxidation

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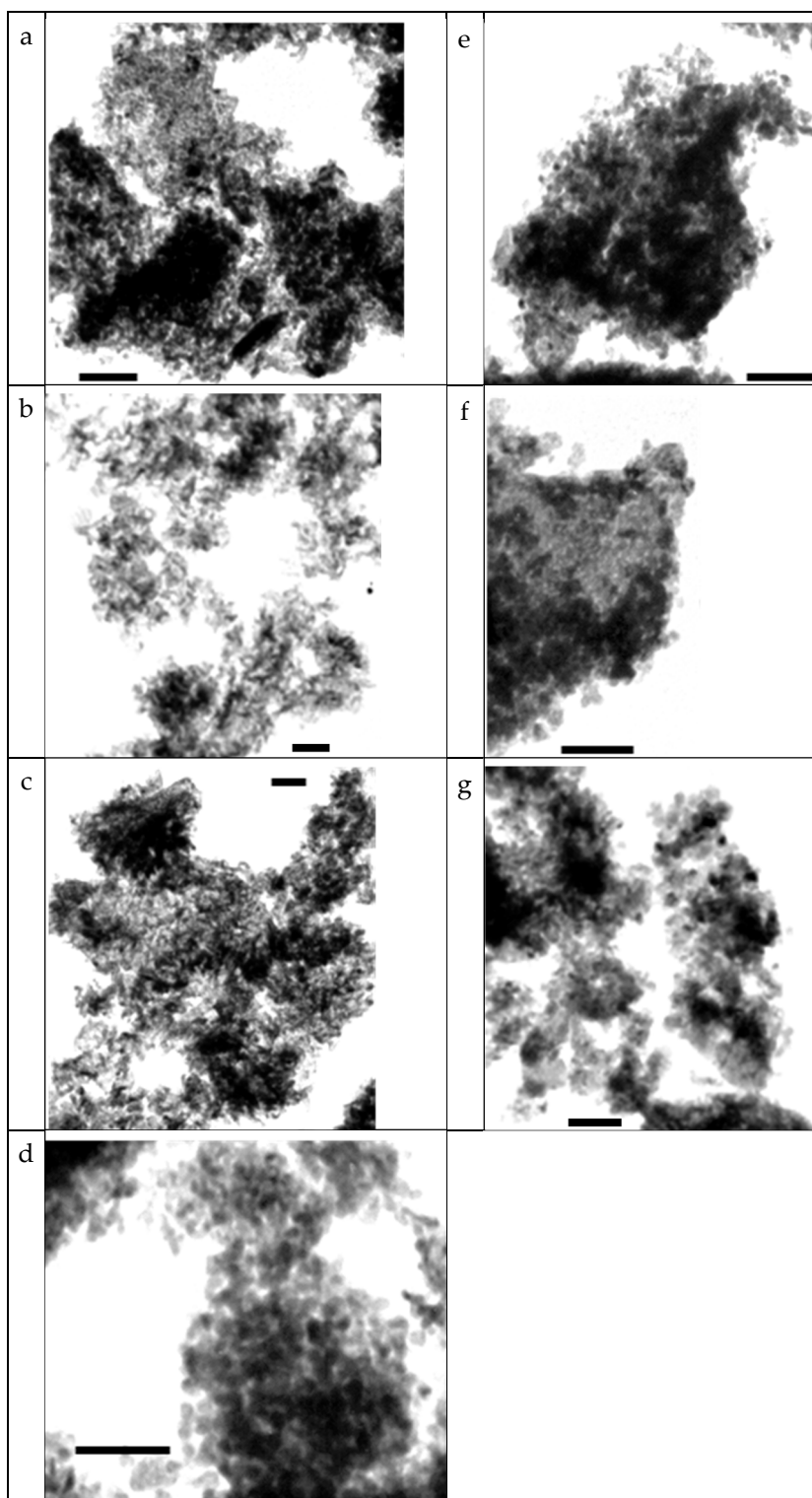


Fig. S1. TEM images recorded for catalysts with sulphur species after modification with gold: a) $\text{Au/CeO}_2\text{S}_{(2-x)}$, b) $\text{Au/CeZrO}_x\text{S}_{(2-x)}(4:1)$, c) $\text{Au/CeZrO}_x\text{S}_{(2-x)}(2:1)$, d) $\text{Au/CeZrO}_x\text{S}_{(2-x)}(1:1)$, e) $\text{Au/CeZrO}_x\text{S}_{(2-x)}(1:2)$, f) $\text{Au/CeZrO}_x\text{S}_{(2-x)}(1:4)$, g) $\text{Au/ZrO}_2\text{S}_{(2-x)}$. The lines in the images correspond to 50 nm.

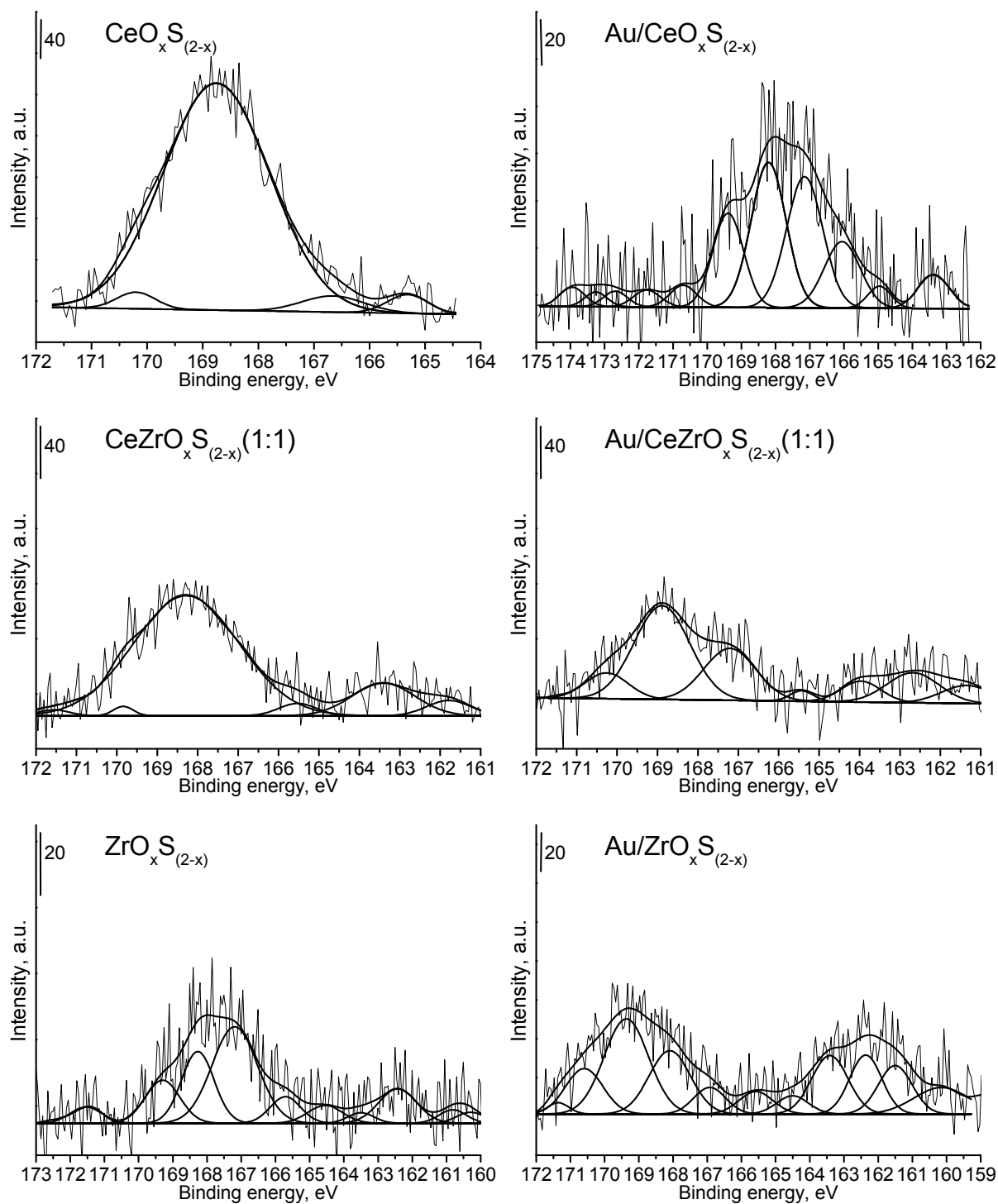


Fig. S2. XPS spectra recorded for S 2p species for samples before and after modification with Au.

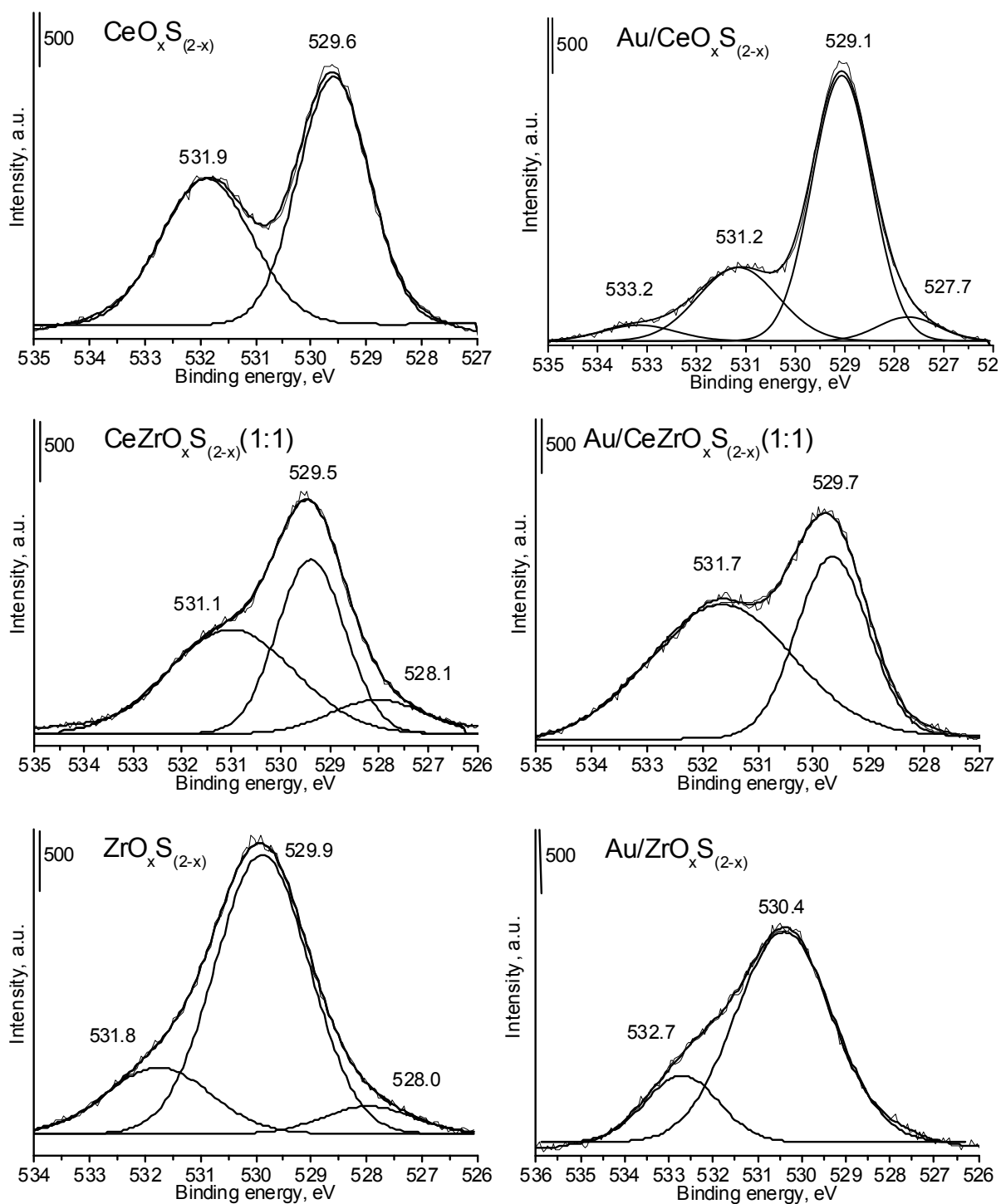


Fig. S3. XP spectra recorded for O 1s species for samples before and after modification with Au.

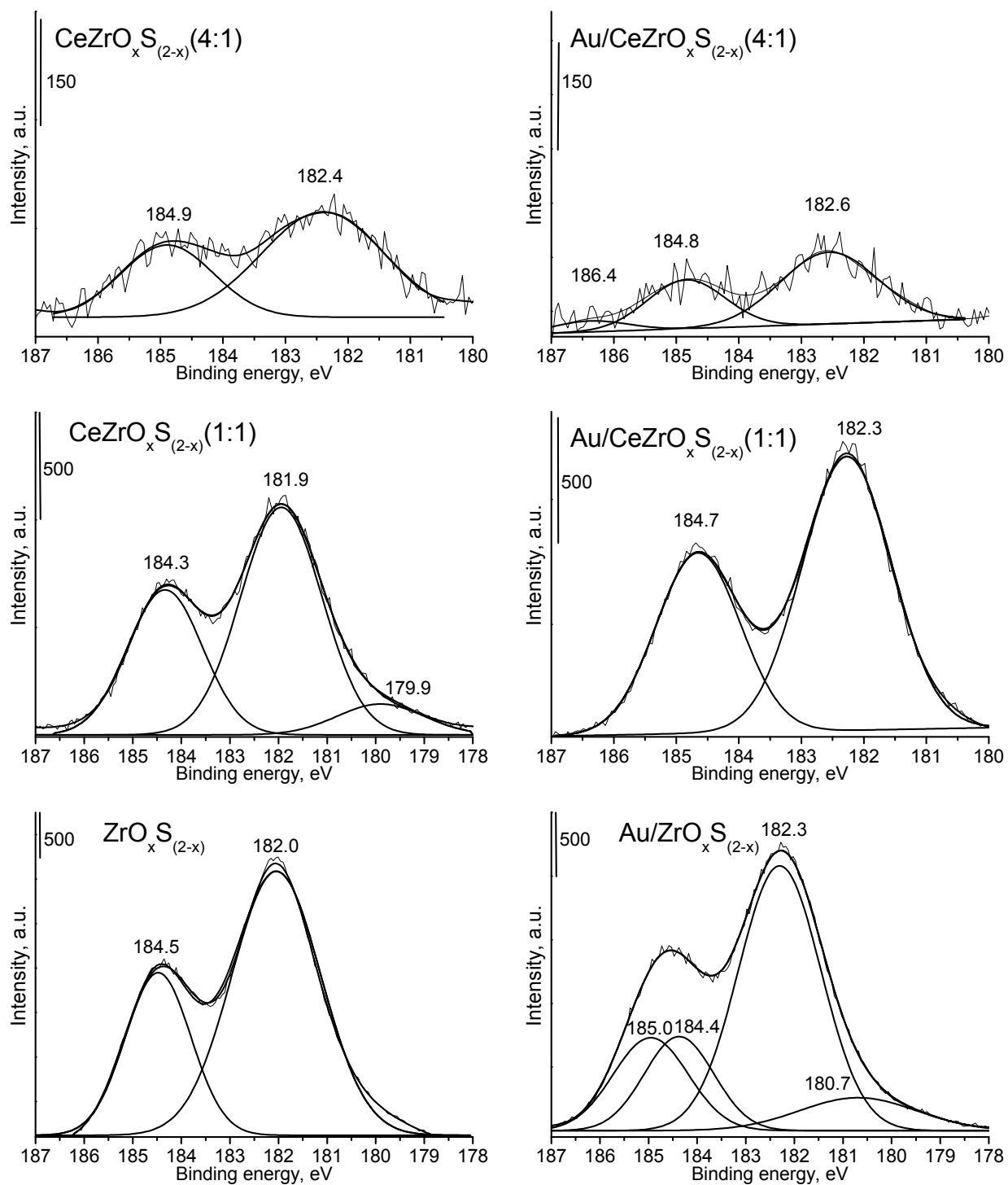


Fig. S4. XP spectra recorded for Zr 3d species for selected Ce-Zr oxides and zirconia with S before and after modification with Au.

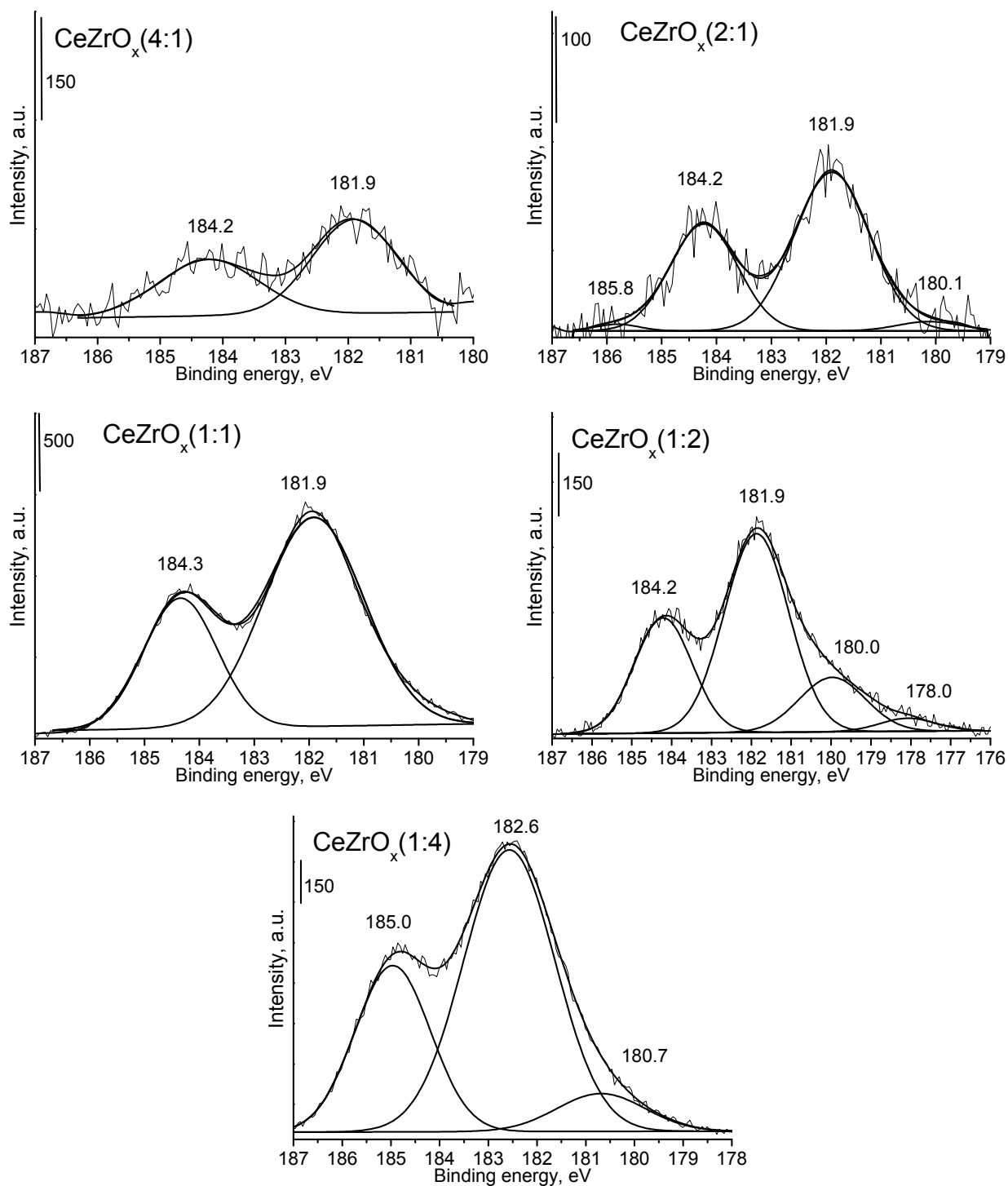


Fig. S5. XPS spectra recorded for Zr 3d species for Ce-Zr oxides.

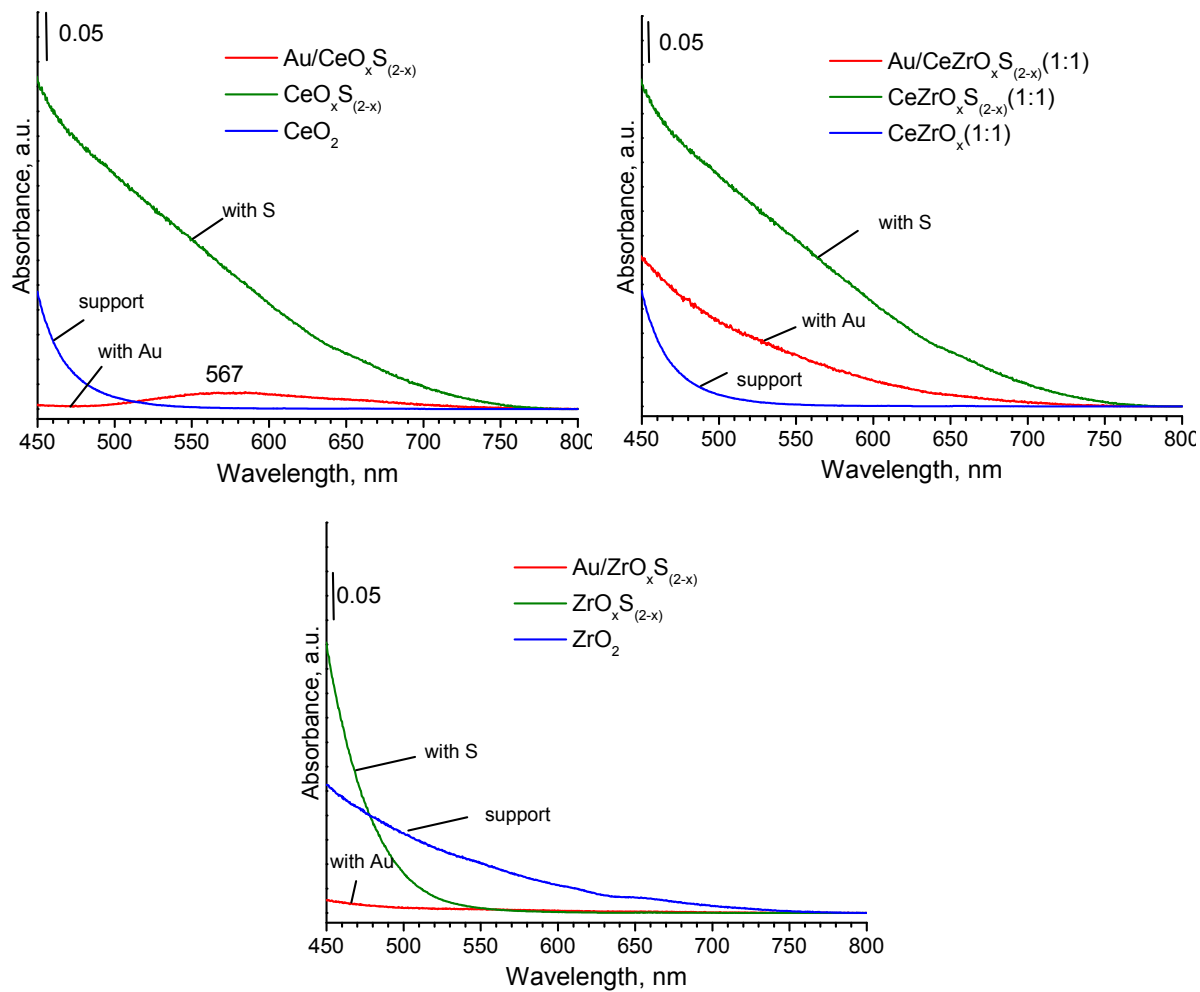


Fig. S6. UV-vis spectra of samples before and after their modification of H₂S and after Au deposition for the spectral region of metallic gold species.

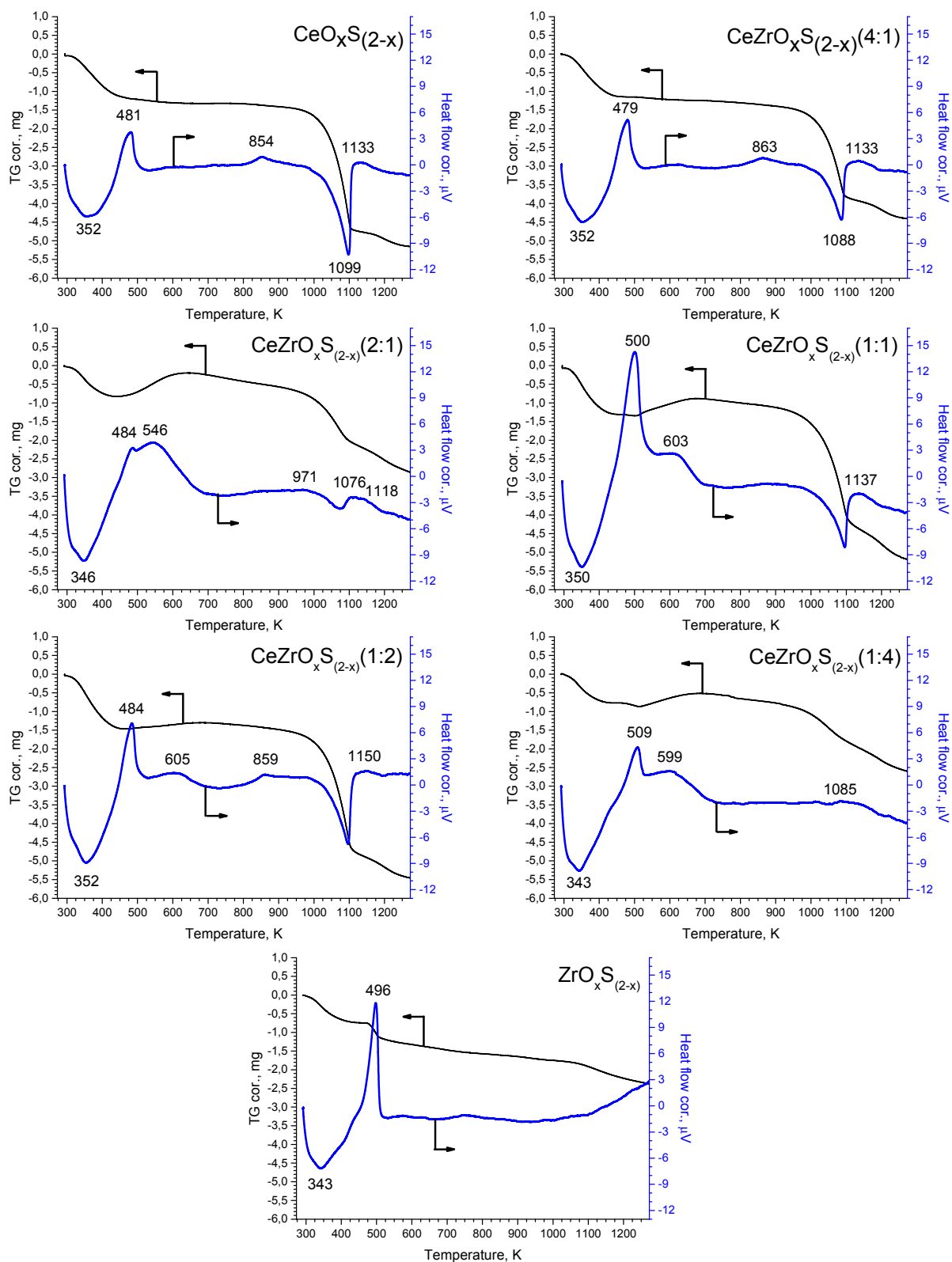


Fig. S7. TG-DTA profiles of the oxides modified with sulfur species without gold species.

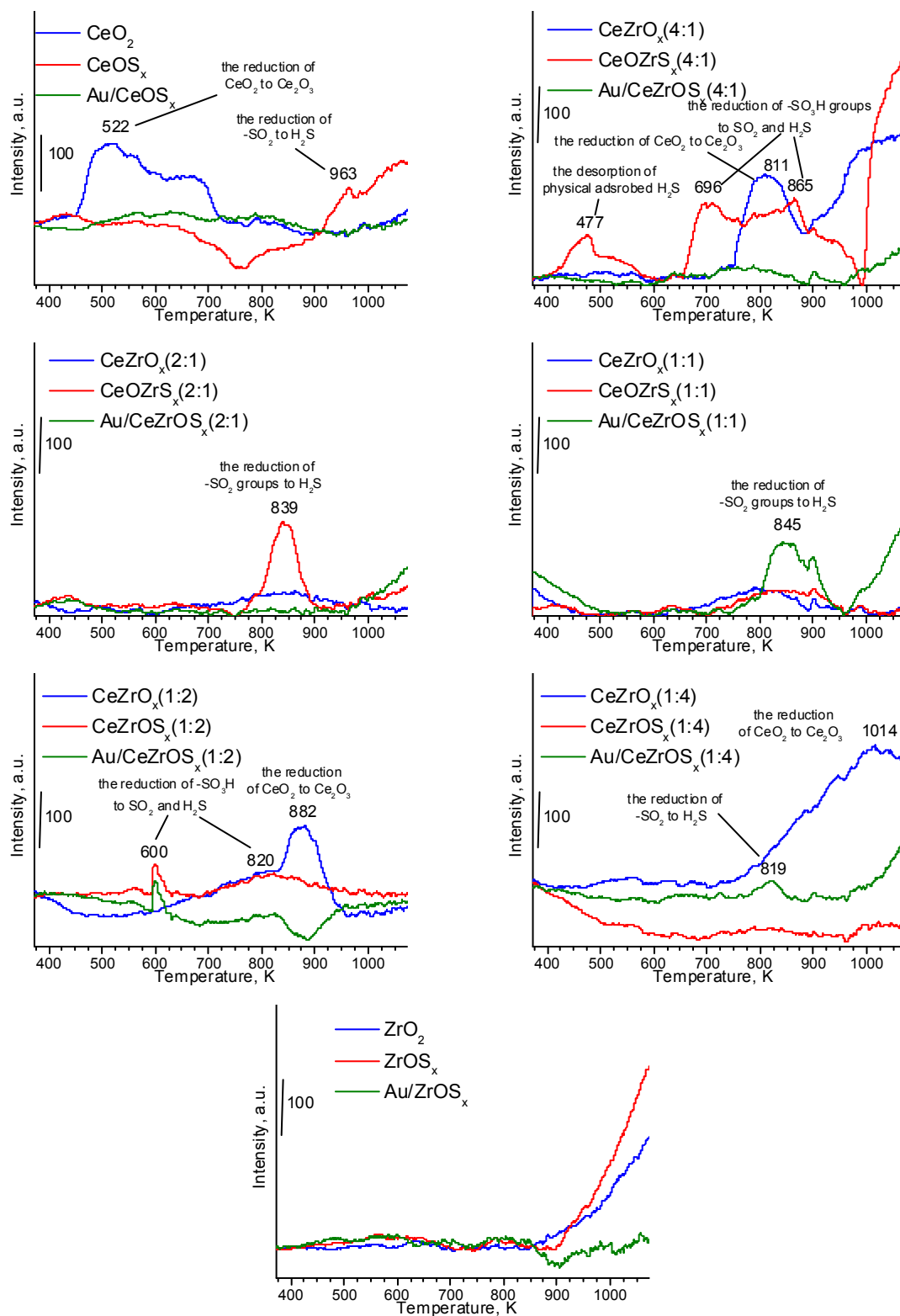


Fig. S8. The TPR H₂ profiles performed for the catalysts.