Electronic Supplementary Material (ESI) for Catalysis Science & Technology

Supplementary information material

Figure S1. TEM images showing segregation of Au on NiO for NiO_{50}-$TiO_{2\text{-}50}$

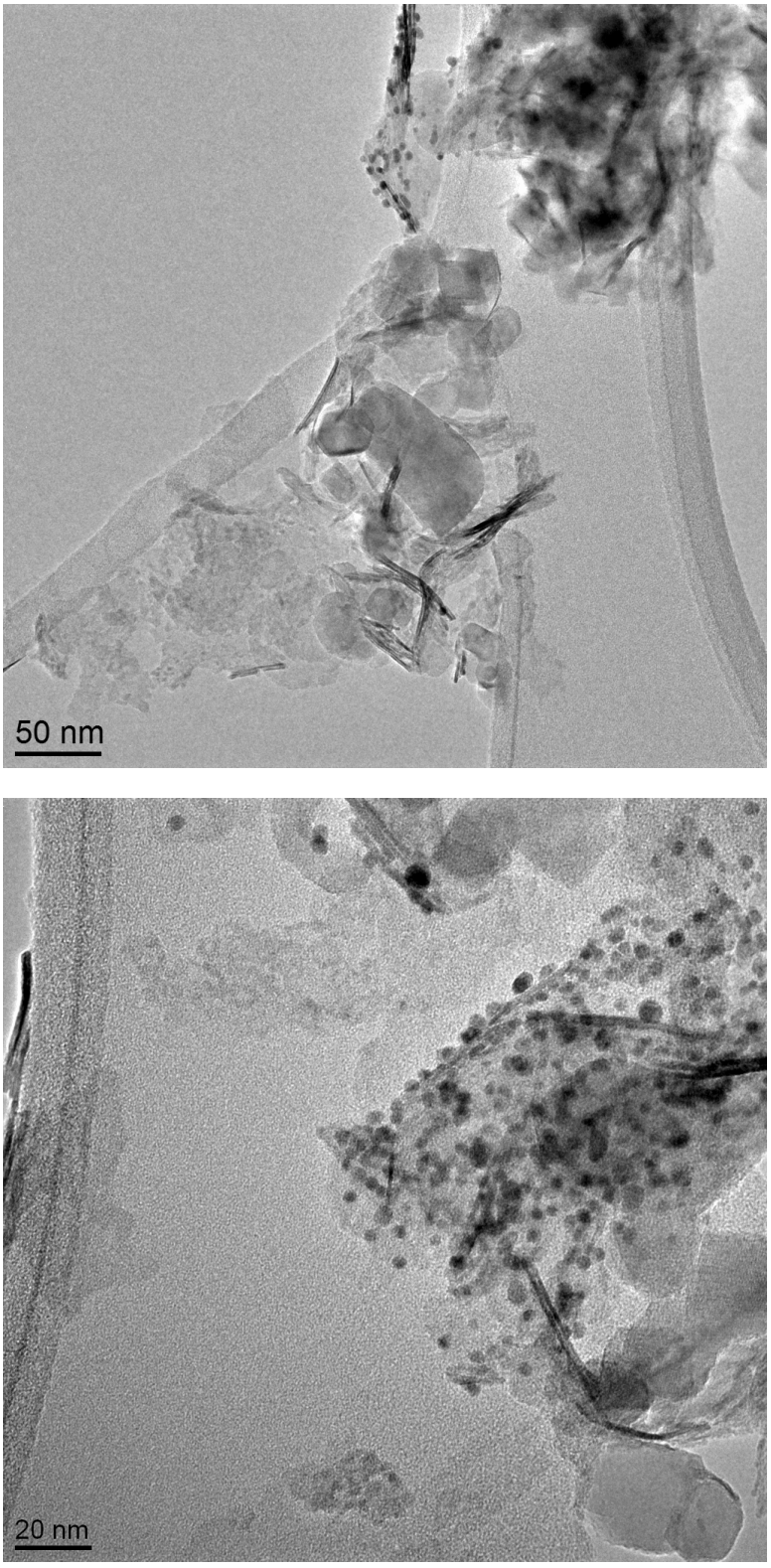
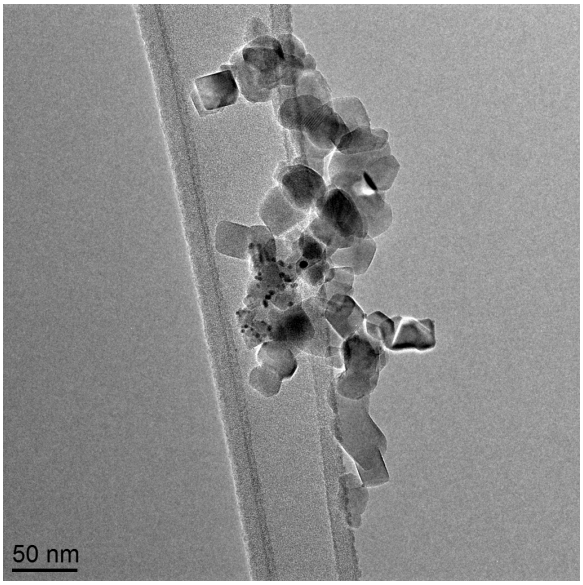
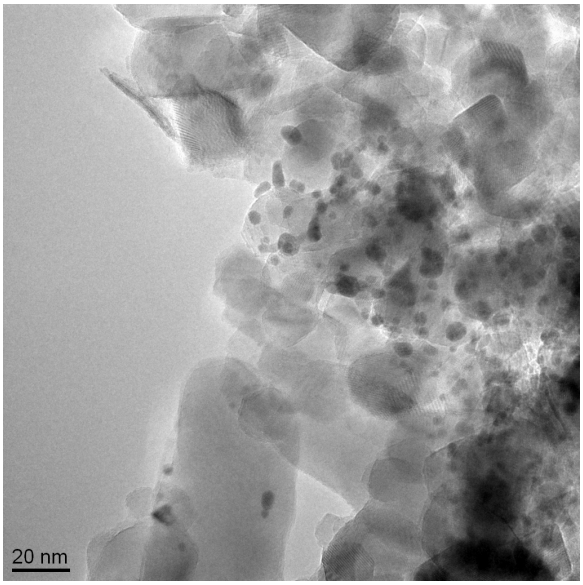


Figure S2. TEM images showing segregation of Au on NiO for NiO_{10}-$TiO_{2\text{-}90}$





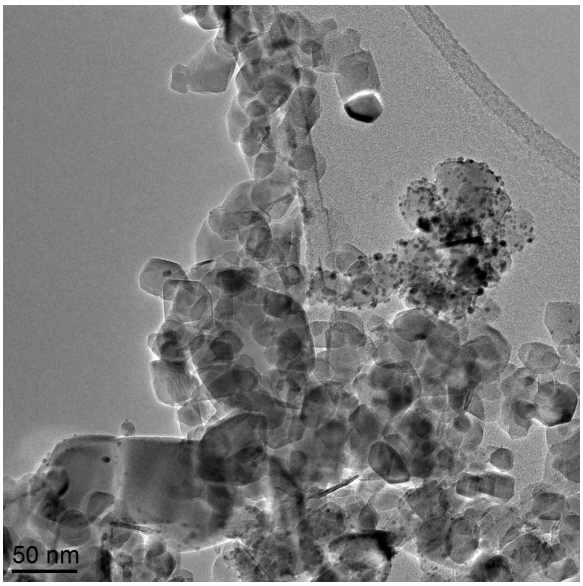


Figure S3. Representative TEM data of (a) unsupported gold particles, (b) Au/NiO_{90}-$TiO_{2\text{-}10}$ c) Au/NiO_{50}-$TiO_{2\text{-}50}$ d) Au/NiO_{10}-$TiO_{2\text{-}90}$

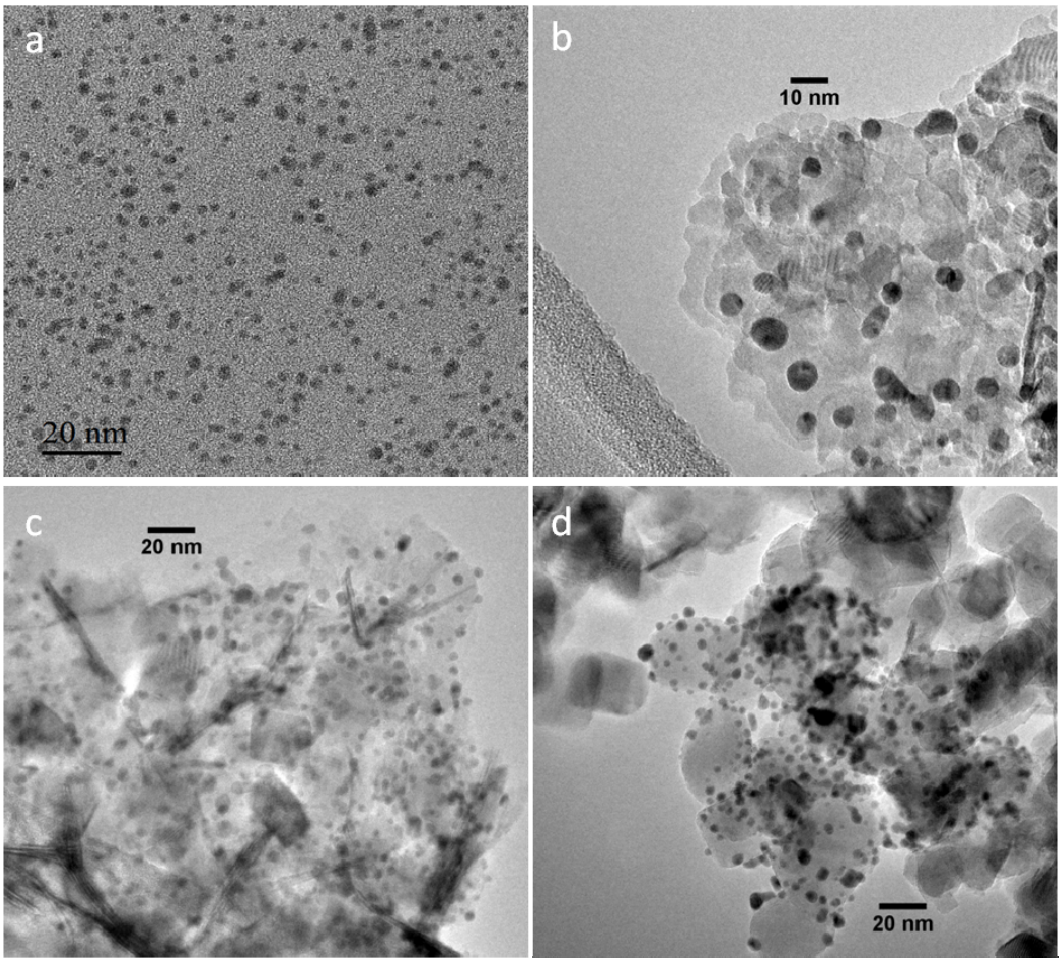


Figure S4. X-ray diffraction data of (a) Au/NiO, (b) Au/NiO_{50}-$TiO_{2\ 50}$, (c) NiO-TiO_2 1:1 physical mixture and (d) Au/TiO_2. Symbols: (*) anatase and (+) rutile.

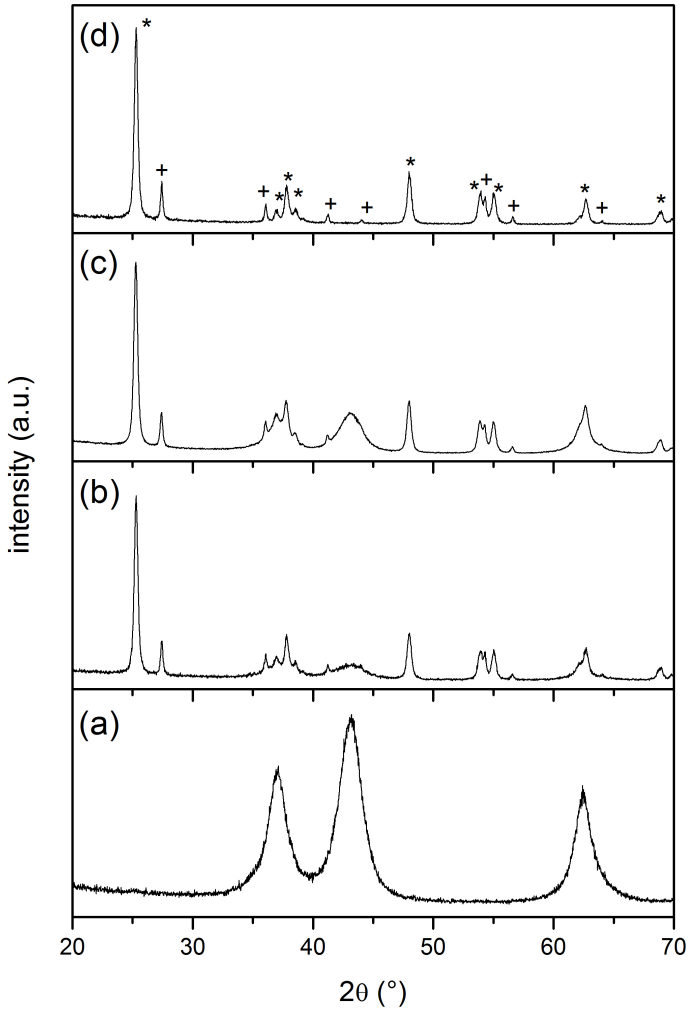


Figure S5. Left panel: fit of DRIFT spectra of adsorbed CO on (a) Au/NiO $_{50}$-$TiO_{2\ 50}$, (b) Au/NiO $_{10}$-$TiO_{2\ 90}$ and (c) Au/TiO_2 corresponding to the spectra of Figure 5. Spectra are offset for clarity. Right panel: intensity changes of fitting CO_L signals with TiO_2 content.

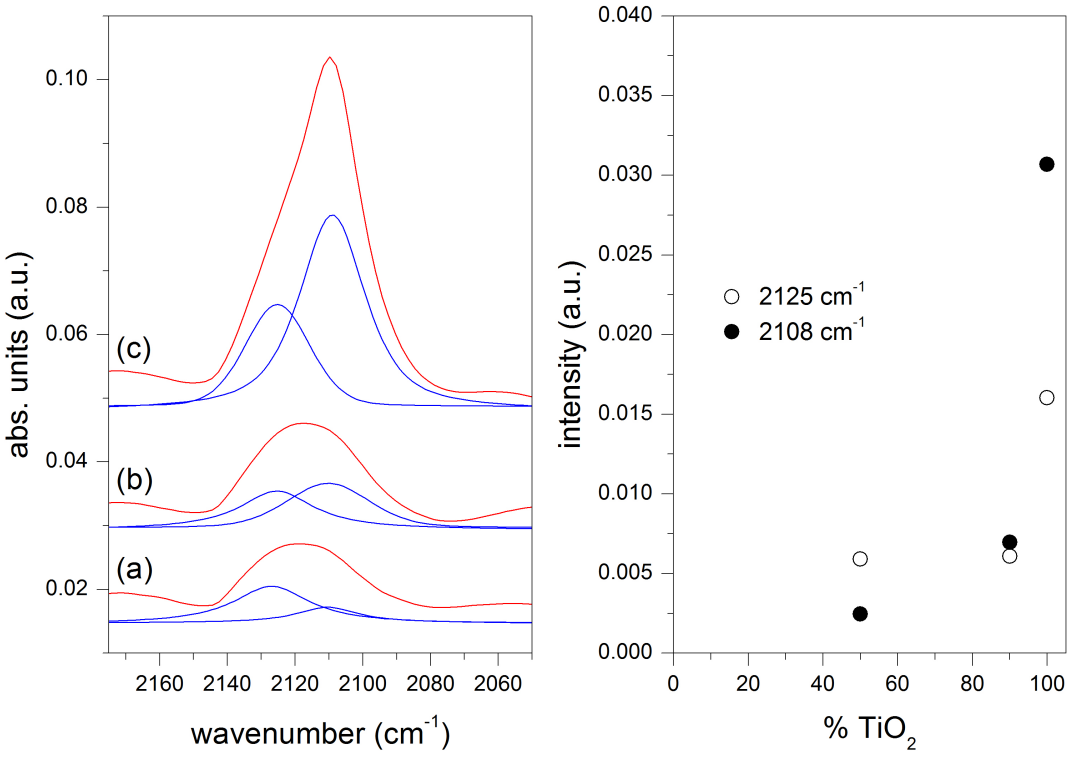


Figure S6. DRIFT spectra of NiO and Au/NiO after CO adsorption-desorption. Spectra are offset for clarity.

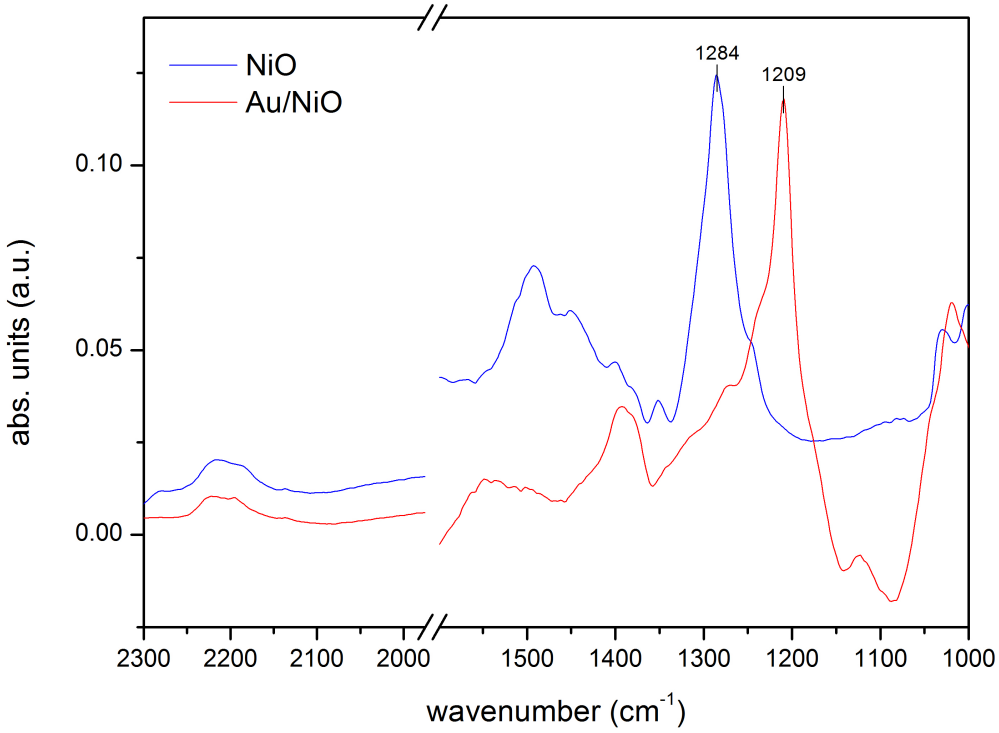


Figure S7. Au particle distributions on supports