

Supplementary Information

A comprehensive study on the effect of preparation methods for Au-core@shell silica materials in room temperature oxidative amide formation

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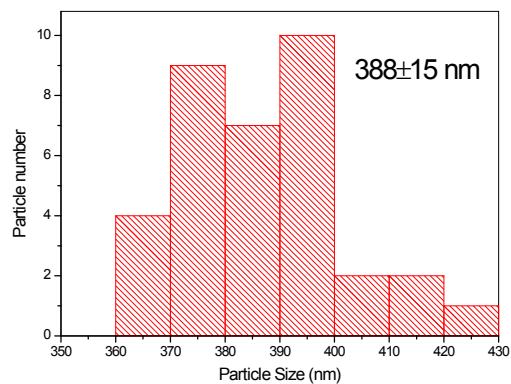


Figure S1 Histogram of size distribution of SiO_2 particles

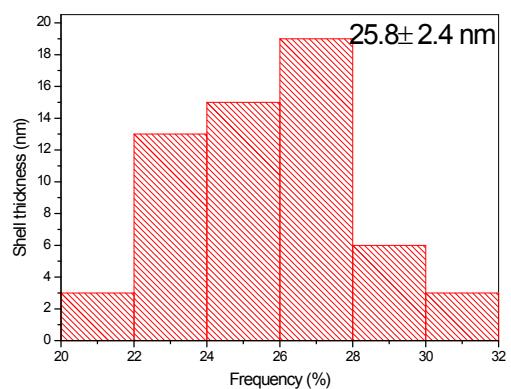


Figure S2 Histogram of shell thickness distribution of $\text{SiO}_2@\text{mSiO}_2$ particles

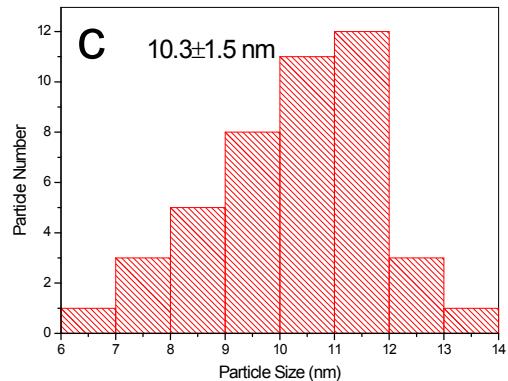
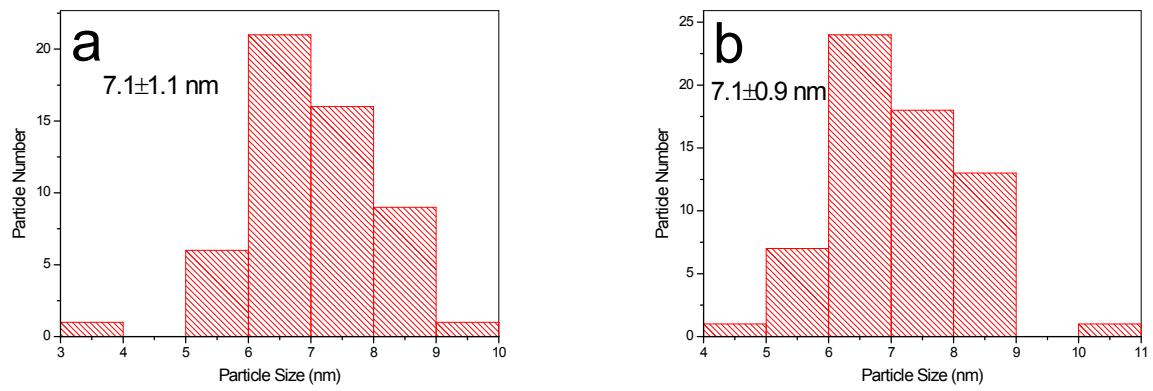


Figure S3 Histograms of Au particle size distribution of (a) $\text{Au/SiO}_2@\text{mSiO}_2(\text{IM})\text{-H}_2\text{-300}$, (b) $\text{Au/SiO}_2@\text{mSiO}_2(\text{IM})\text{-H}_2\text{-400}$ and (c) $\text{Au/SiO}_2@\text{mSiO}_2(\text{IM})\text{-H}_2\text{-500}$ catalysts

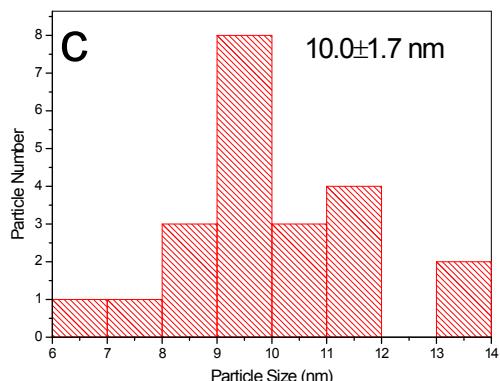
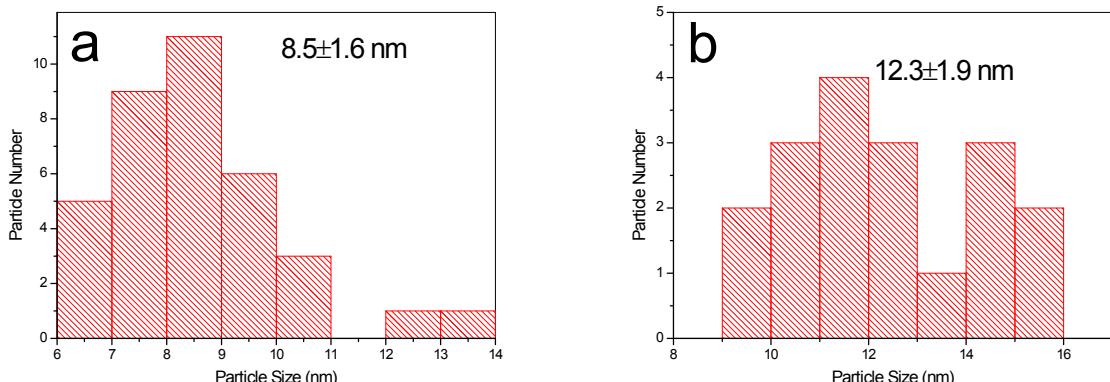


Figure S4 Histograms of Au particle size distribution of (a) $\text{Au/SiO}_2@\text{mSiO}_2(\text{DP})\text{-H}_2\text{-300}$, (b) $\text{Au/SiO}_2@\text{mSiO}_2(\text{DP})\text{-H}_2\text{-400}$ and (c) $\text{Au/SiO}_2@\text{mSiO}_2(\text{DP})\text{-H}_2\text{-500}$ catalysts

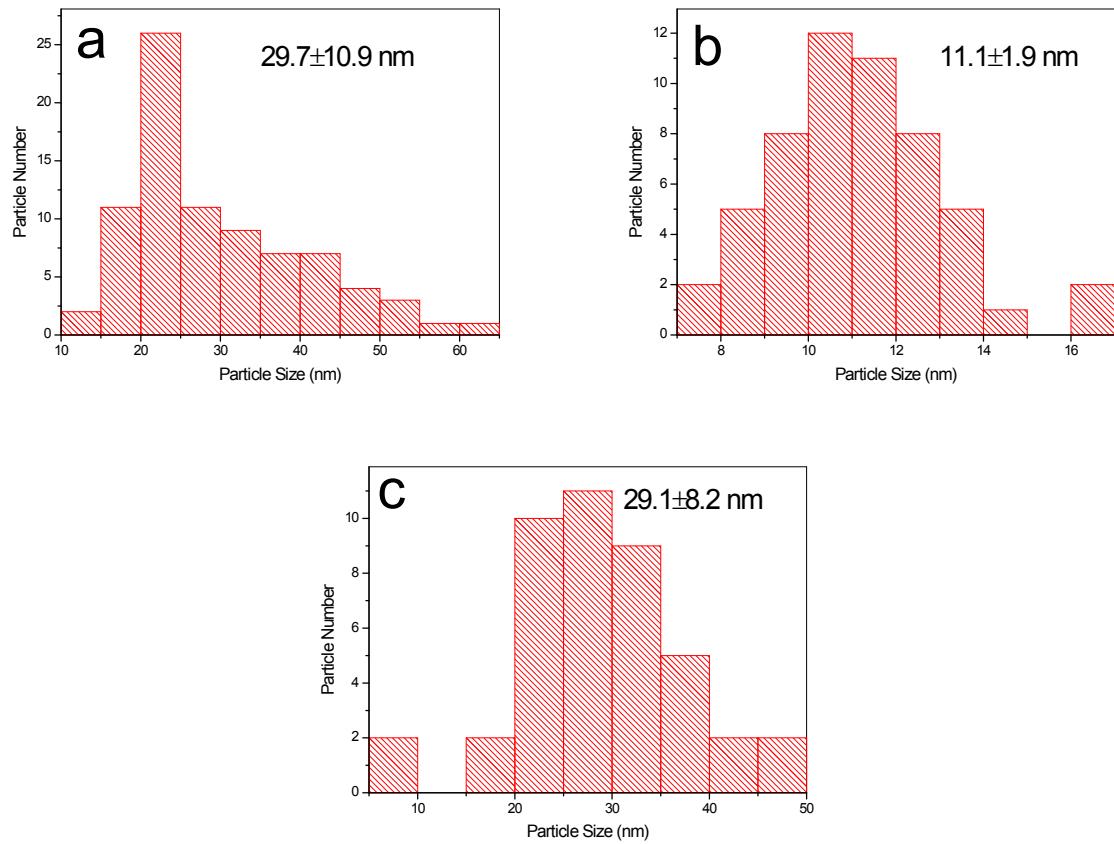


Figure S5 Histograms of Au particle size distribution of (a) $\text{Au/SiO}_2@\text{mSiO}_2(\text{DP})\text{-air-300}$, (b) $\text{Au/SiO}_2@\text{mSiO}_2(\text{DP})\text{-air-400}$ and (c) $\text{Au/SiO}_2@\text{mSiO}_2(\text{DP})\text{-air-500}$ catalysts