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Supporting Information For:

Optimizing Molecule-Like Gold Clusters for Light Energy Conversion

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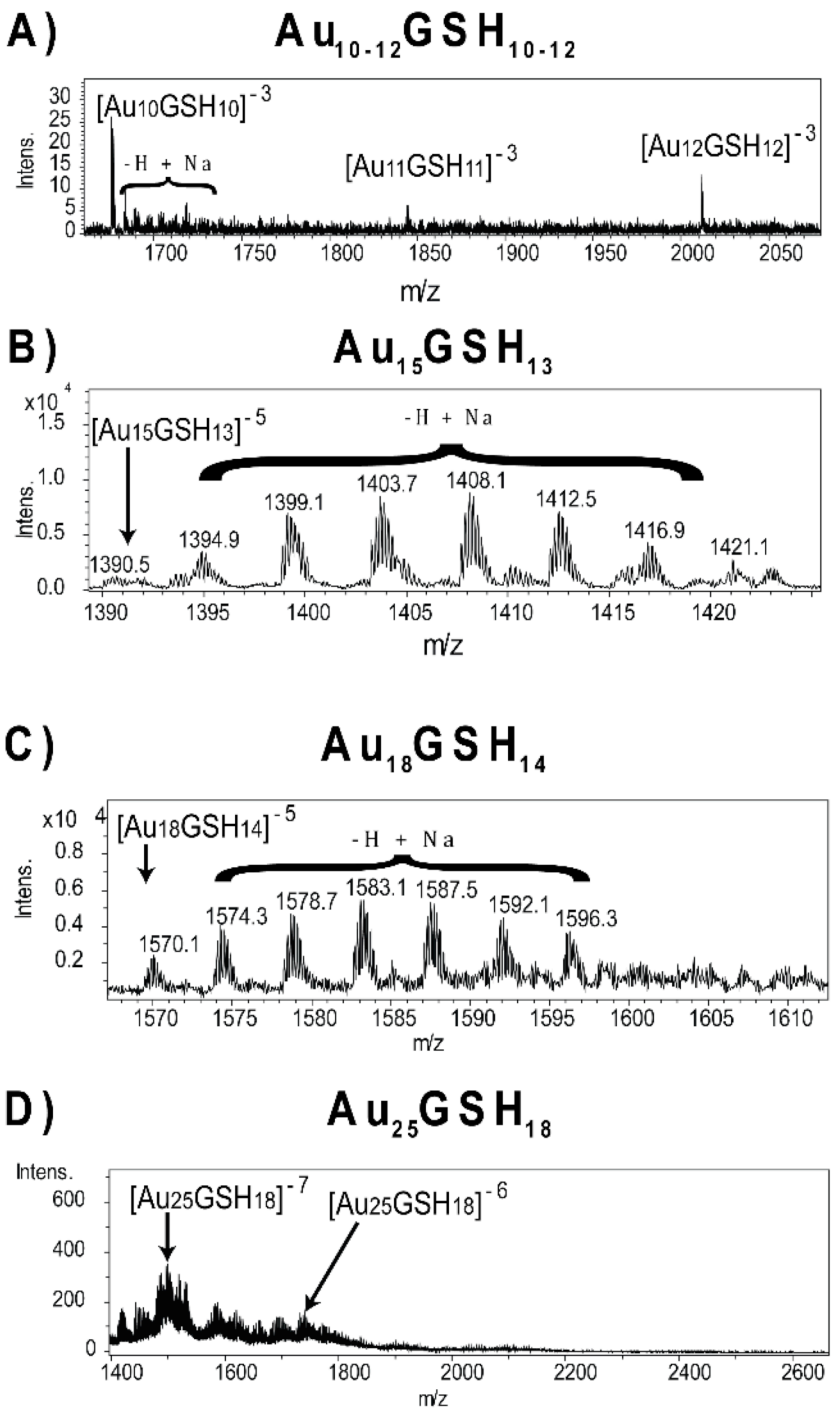

Figure S1. Mass spectra for $Au_{10\text{-}12}GSH_{10\text{-}12}$ (A), $Au_{15}GSH_{13}$ (B), $Au_{18}GSH_{14}$(C) and $Au_{25}GSH_{18}$ (D) where the major ions for each of these solutions are identified (adapted from reference 3).

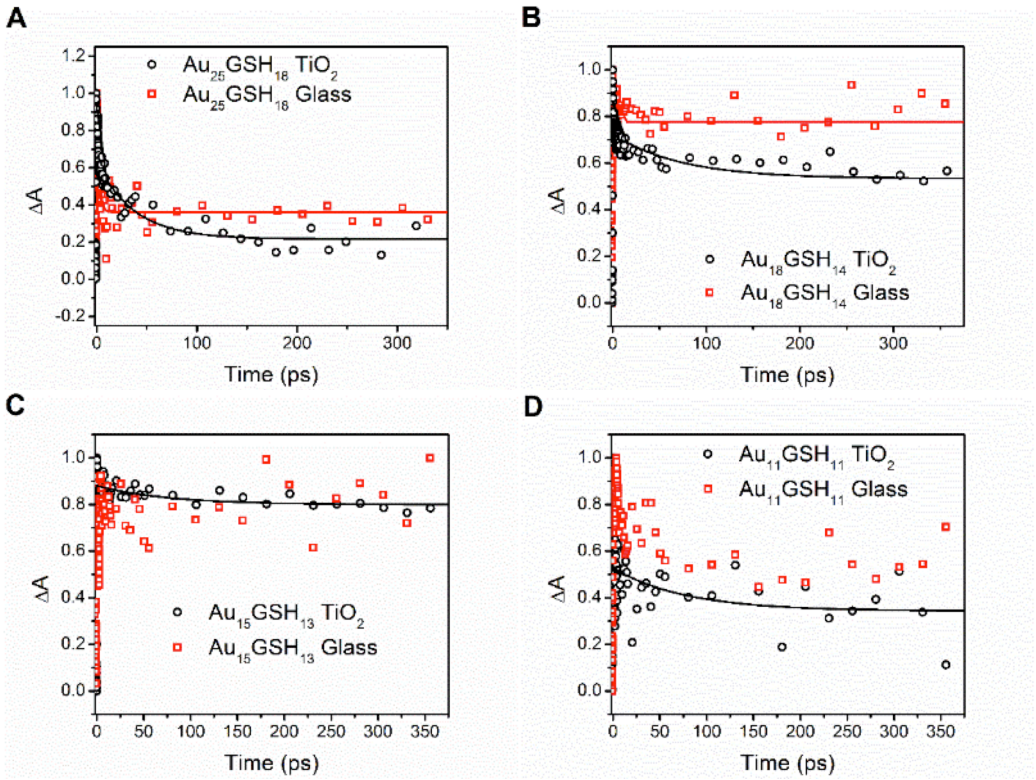

Figure S2. Time-decay traces measured at 600 nm, and after 387 nm/130 fs laser excitation for each of $Au_{25}GSH_{18}$ (A), $Au_{18}GSH_{14}$ (B), $Au_{15}GSH_{13}$ (C), and $Au_{11}GSH_{11}$ (D), on both glass (red) and adsorbed on TiO_2 (black). The difference in relaxation rates determined from these kinetic traces was used to estimate the electron transfer rate from clusters to TiO_2, as discussed in the main text.