

Supplementary material

Silver–Gold Alloy Nanoparticles (AgAu NPs): Photochemical Synthesis of Novel Biocompatible, Bimetallic Alloy Nanoparticles and Study of Their In Vitro Peroxidase Nanozyme Activity

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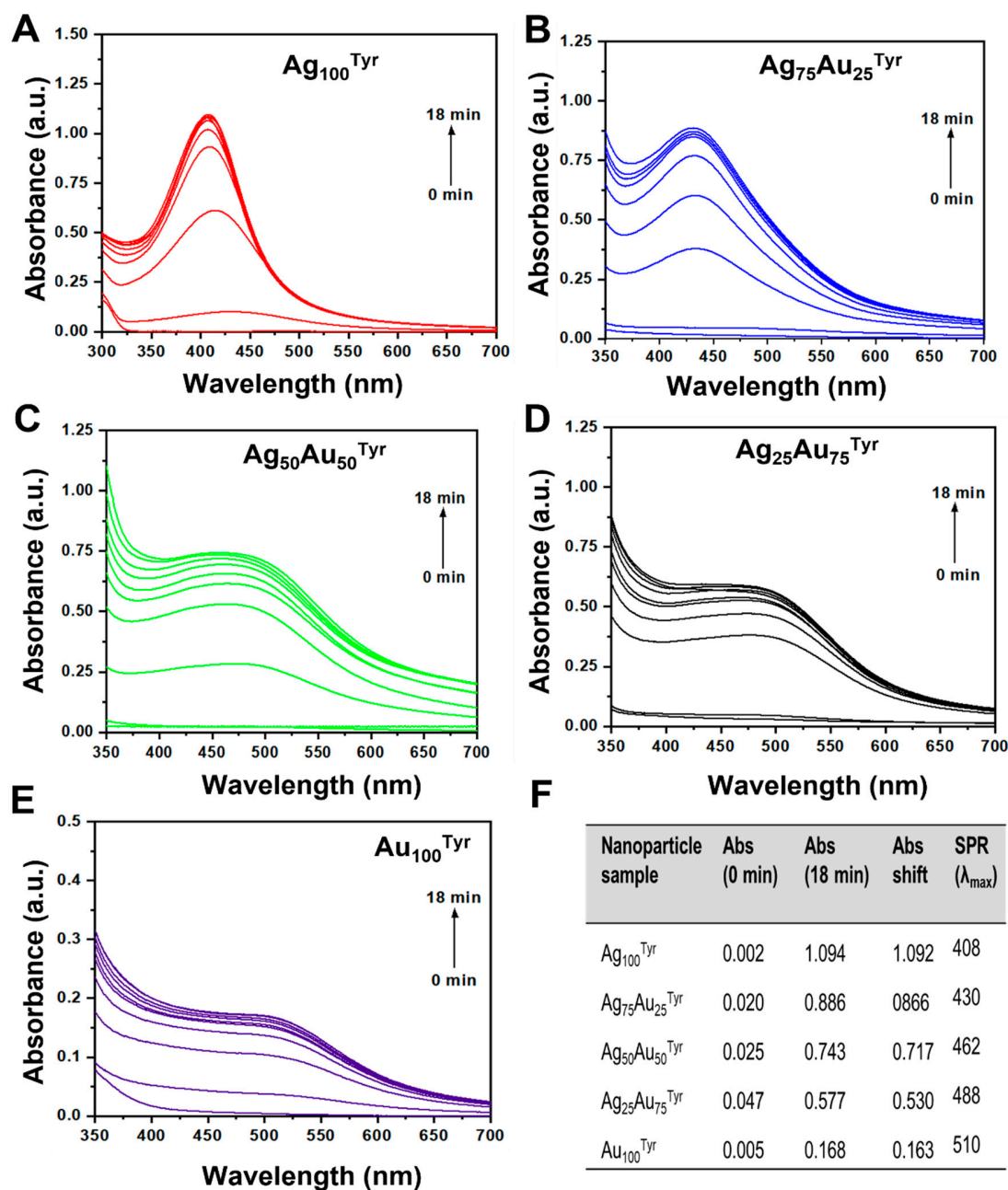


Figure S1. Time dependent UV visible spectra of Tyrosine-reduced mono/bimetallic NPs. UV visible absorption spectra of mono and bi-metallic NPs during 0-18 min time span. (A) $\text{Ag}_{100}^{\text{Tyr}}$, (B) $\text{Au}_{75}\text{Au}_{25}^{\text{Tyr}}$, (C) $\text{Au}_{50}\text{Au}_{50}^{\text{Tyr}}$, (D) $\text{Ag}_{25}\text{Au}_{75}^{\text{Tyr}}$, (E) $\text{Au}_{100}^{\text{Tyr}}$, (F) Table summarizing results of the time-dependent UV visible study.

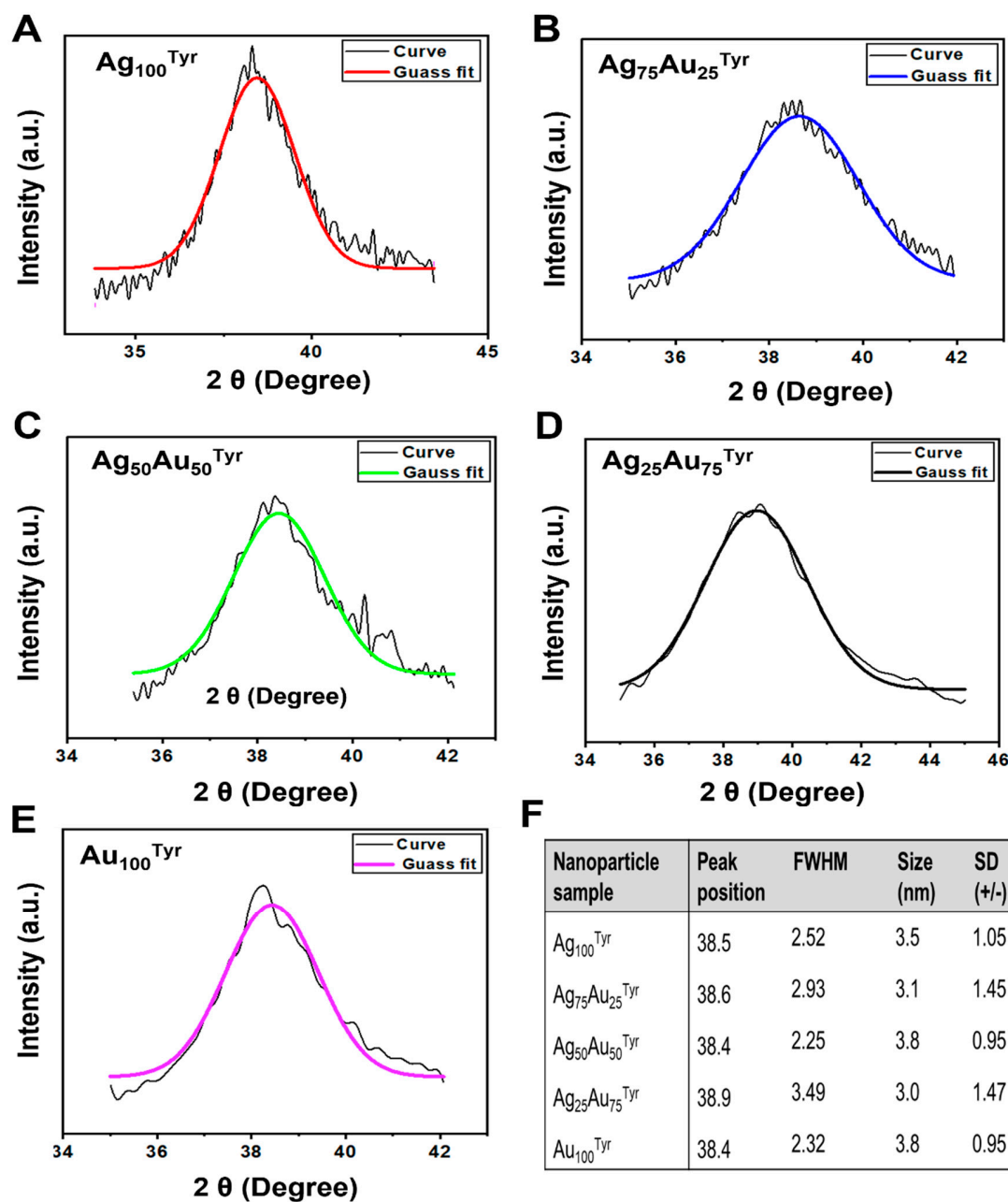


Figure S2. Nanoparticle size determined by the XRD. The nanoparticle diameter (nano-crystal grain size) determined by the Scherrer equation (i.e., fit the XRD peaks and determined the FWHM [2 θ] by Gaussian curve fitting). **(A)** $\text{Ag}_{100}^{\text{Tyr}}$, **(B)** $\text{Au}_{75}\text{Au}_{25}^{\text{Tyr}}$, **(C)** $\text{Au}_{50}\text{Au}_{50}^{\text{Tyr}}$, **(D)** $\text{Ag}_{25}\text{Au}_{75}^{\text{Tyr}}$, **(E)** $\text{Au}_{100}^{\text{Tyr}}$, **(F)** Table summarizing results from the XRD study.

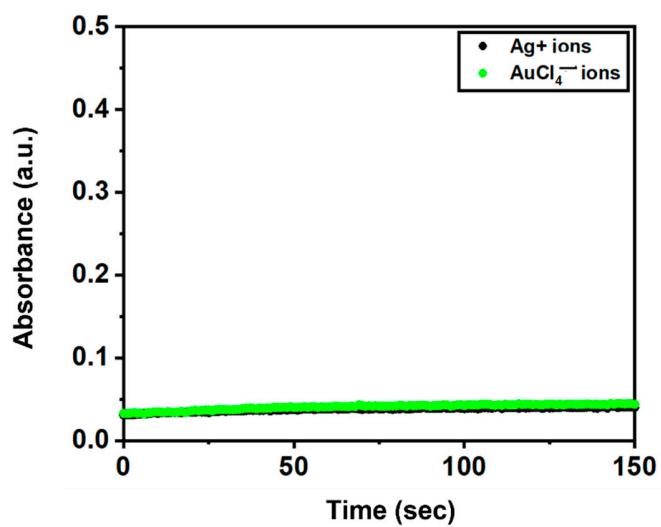


Figure S3. The in vitro peroxidase mimicking activity determined for the Ag⁺, and AuCl₄⁻ (i.e., control ions).