

# Magnetic Immunoassay Based on Au Pt Bimetallic Nanoparticles/Carbon Nanotube Hybrids for Sensitive Detection of Tetracycline Antibiotics

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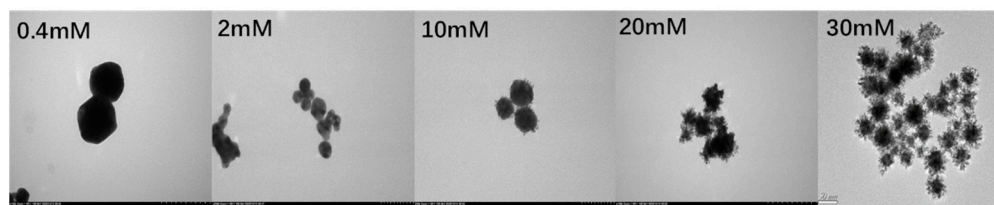
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**Figure S1.** TEM images of Au@Pt using 20mM HAuCl<sub>4</sub> and certain concentration of K<sub>2</sub>PtCl<sub>6</sub>.

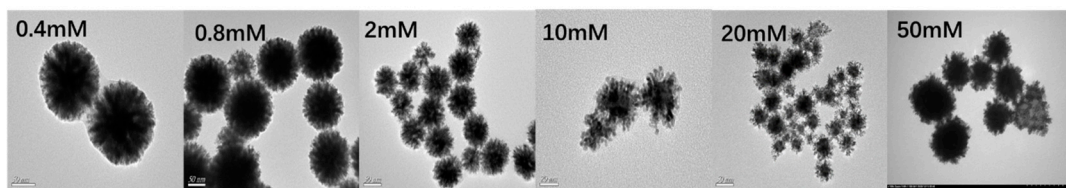
**Figure S2.** TEM images of Au@Pt using 30mM K<sub>2</sub>PtCl<sub>6</sub> and certain concentration of HAuCl<sub>4</sub>.

**Figure S3.** Absorbance of Au@Pt at different concentration of K<sub>2</sub>PtCl<sub>6</sub> and HAuCl<sub>4</sub>.

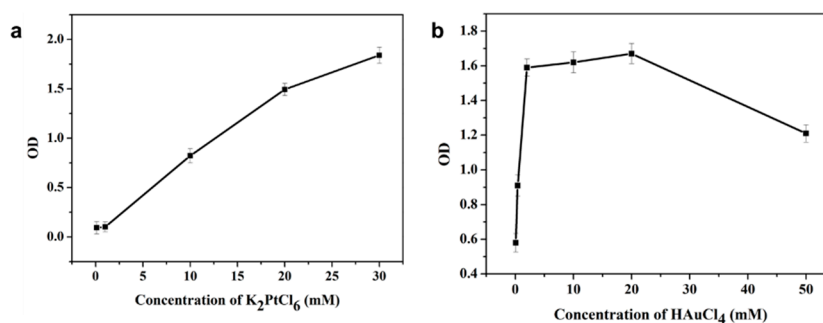
**Figure S4.** DLS analysis of Au@Pt at optimal condition.



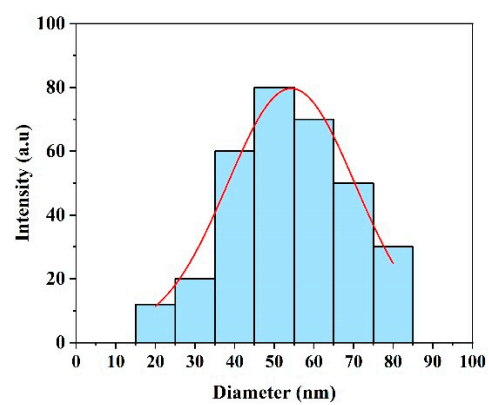
**Figure S1.** TEM images of Au@Pt using 20mM HAuCl<sub>4</sub> and certain concentration of K<sub>2</sub>PtCl<sub>6</sub>.



**Figure S2.** TEM images of Au@Pt using 30mM K<sub>2</sub>PtCl<sub>6</sub> and certain concentration of HAuCl<sub>4</sub>.



**Figure S3.** Absorbance of Au@Pt at different concentration of K<sub>2</sub>PtCl<sub>6</sub> and HAuCl<sub>4</sub>. a: The concentrations of K<sub>2</sub>PtCl<sub>6</sub> were 0.4 mM, 2 mM, 10 mM, 20 mM and 30 mM at 20 mM of HAuCl<sub>4</sub>; b: the concentrations of HAuCl<sub>4</sub> were 0.4 mM, 0.8 mM, 2 mM, 10 mM, 20 mM and 50 mM at 30 mM of K<sub>2</sub>PtCl<sub>6</sub>.



**Figure S4.** DLS analysis of Au@Pt at optimal condition.