

**Supporting Information for**  
**Modifier-free gold nanoparticle colorimetric sensing for detecting**  
**sulfanilamide in the presence of dopamine**

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Dinh<sup>c,\*</sup>, Shu-Hua Cheng<sup>d,\*</sup>

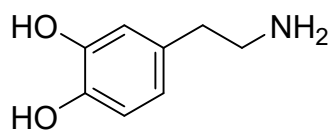
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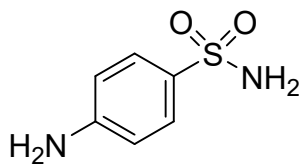
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*<sup>d</sup>Department of Applied Chemistry, National Chi Nan University, Puli, Nantou Hsien, 545, Taiwan.*

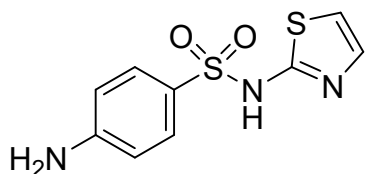
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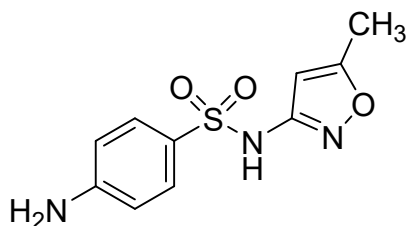
Dopamine (DA)



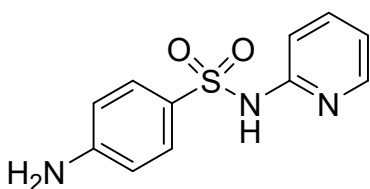
Sulfanilamide (SAA)



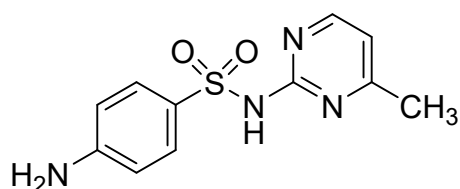
Sulfathiazole (STZ)



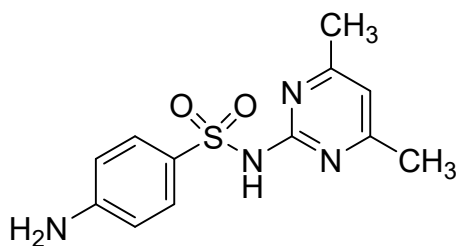
Sulfamethoxazole (SMX)



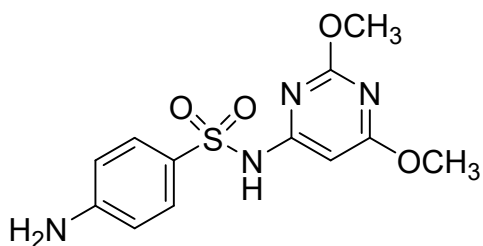
Sulfapyridine (SPD)



Sulfamerazine (SMR)

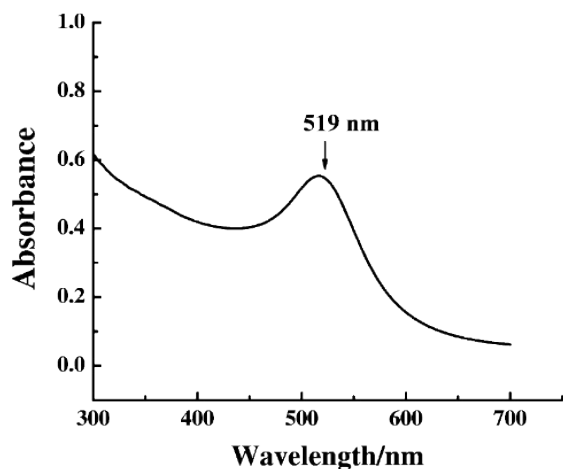


Sulfamethazine (SMZ)



Sulfadimethoxine (SDM)

**Figure 1S. The chemical structure of molecules in this work**



**Figure 2S. UV-Vis spectra of AuNPs**

**Table 1S. Chemicals were used in this work**

<b>Analyte</b>	<b>Molecular weight, g/mol</b>	<b>Supplier</b>
Sulfanilamide (SAA), C <sub>6</sub> H <sub>8</sub> N <sub>2</sub> O <sub>2</sub> S	172.20	J.T BAKER
Dopamine (DA), C <sub>8</sub> H <sub>11</sub> NO <sub>2</sub>	153.18	ACROS
Sodium tetrachloroaurate (III), 99.99% AuCl <sub>4</sub> Na <sub>2</sub> H <sub>2</sub> O	397.80	SIGMA-ALDRICH
Trisodium citrate, C <sub>6</sub> H <sub>9</sub> Na <sub>3</sub> O <sub>9</sub>	294.10	ACROS
Sulfathiazole (STZ), C <sub>9</sub> H <sub>9</sub> N <sub>3</sub> O <sub>2</sub> S <sub>2</sub>	255.31	SIGMA-ALDRICH
Sulfamerazine (SMR), C <sub>11</sub> H <sub>12</sub> N <sub>4</sub> O <sub>2</sub> S	264.30	SIGMA-ALDRICH
Sulfapyridine (SPD), C <sub>11</sub> H <sub>11</sub> N <sub>3</sub> O <sub>2</sub> S	249.28	SIGMA-ALDRICH
Sulfamethoxazole (SMX), C <sub>10</sub> H <sub>11</sub> N <sub>3</sub> O <sub>3</sub> S	253.27	SIGMA-ALDRICH
Sulfamethazine (SMZ), C <sub>12</sub> H <sub>14</sub> N <sub>4</sub> O <sub>2</sub> S	278.33	SIGMA-ALDRICH
Sulfadimethoxine (SDM), C <sub>12</sub> H <sub>14</sub> N <sub>4</sub> O <sub>4</sub> S	310.32	SIGMA-ALDRICH