IIn Situ SERS Monitoring of Schiff Base Reactions Via Nanoparticles on a Mirror Platform

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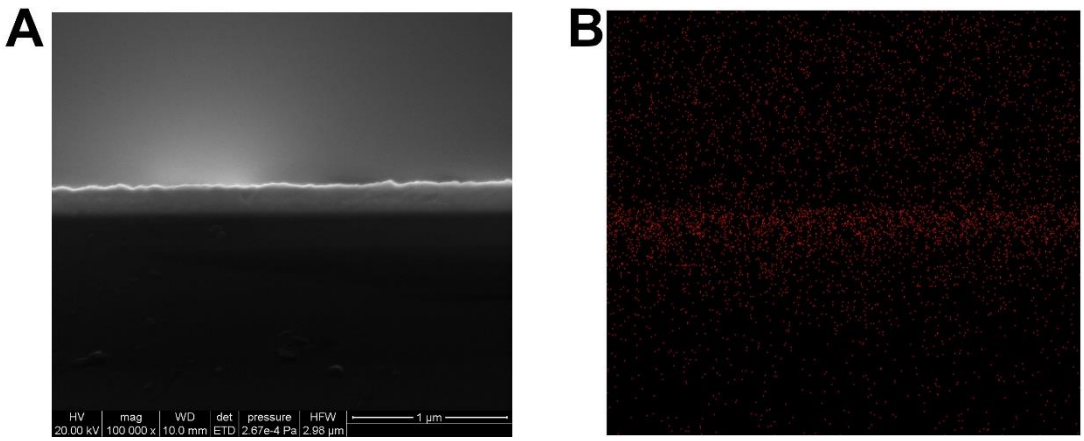

Figure.S1 SEM image of NP-PATP-TF chip cross section STEM image and elemental mapping images of Au

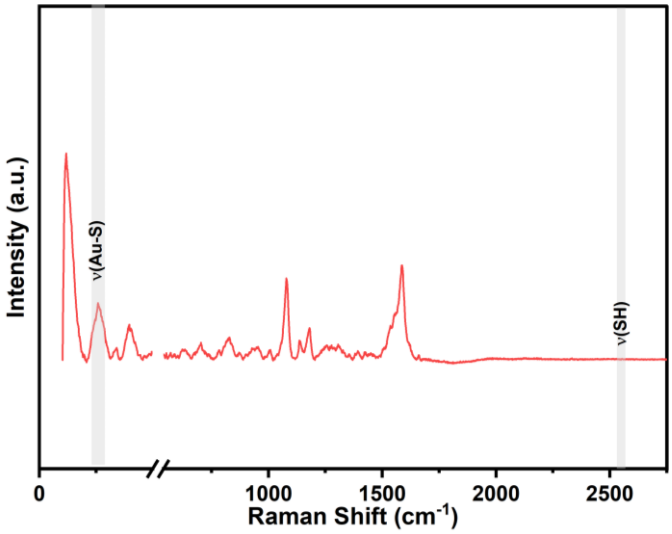

Figure.S2 Extended SERS spectrum of PATP on the NP-PATP- TF structure.

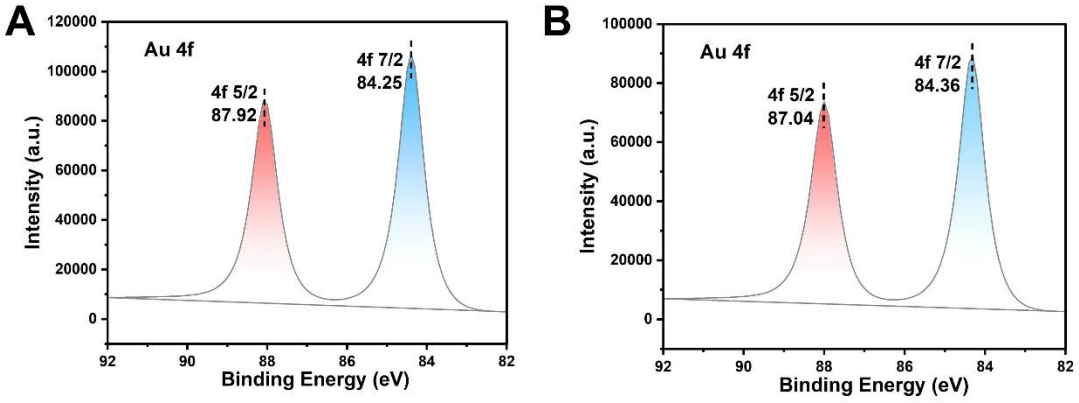

Figure. S3 High-resolution XPS spectra of Au 4f of Au film before (A) and after the adsorption of monolayer of PATP (B).

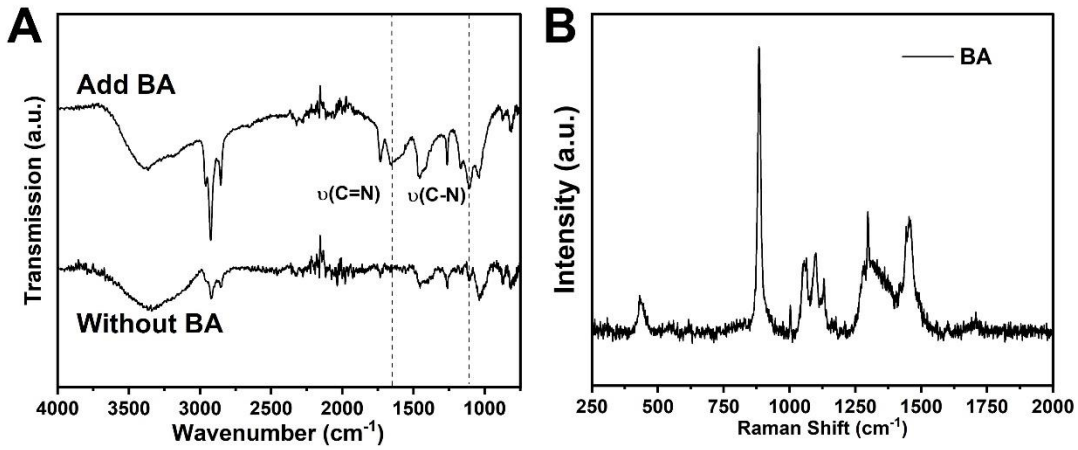

Figure. S4 (A) Fourier Transform infrared spectra of NP-PATP-Au TF before and after BA added. (B) Normal Raman spectra of benzaldehyde of 10^{-1} M.

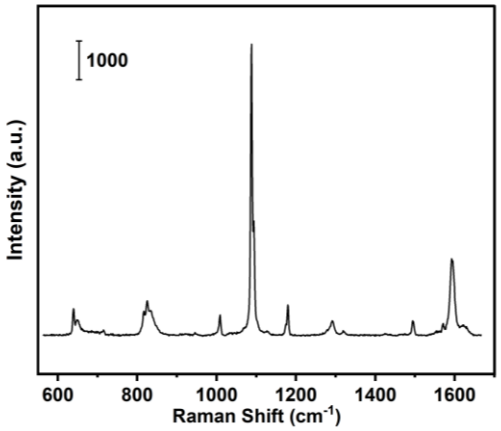

Figure. S5 Normal Raman spectra of PATP solid powder.

Z-Average (d.nm):	42.30	Peak 1:	16.95	100.0	4.967
PdI:	0.549	Peak 2:	0.000	0.0	0.000
Intercept:	0.869	Peak 3:	0.000	0.0	0.000

Result quality : Refer to quality report

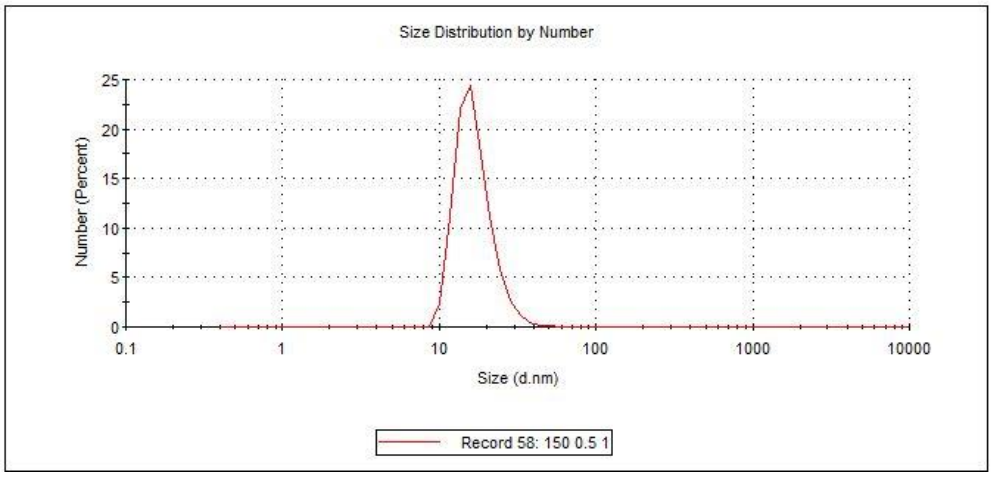

Figure. S6 Dynamic light scattering results of Au NPs sol.

Table S1. Mode assignment of the Raman peaks for PATP.[1]

Normal Raman (cm^{-1})	**SERS (cm^{-1})**	**Mode**
1008	1001	b_2
1087	1075	a_1
1150	1142	b_2

a_1: symmetrical vibration; b_2: asymmetric vibration

Reference

1. Kim, K.; Yoon, J.K. Raman Scattering of 4-Aminobenzenethiol Sandwiched between Ag/Au Nanoparticle and Macroscopically Smooth Au Substrate. *J. Phys. Chem. B* **2005**, *109*, 20731–20736, doi:10.1021/jp052829b.