

Electronic Supplementary Information (ESI) for

Surface-enhanced Raman Scattering (SERS) Chips Made by Metal Nanoparticles Doped Polymer Fibers

*Wenran Gao, Gang Chen, Weiqing Xu, Chenggong Yang, Shuping Xu**

State Key Laboratory of Supramolecular Structure and Materials, Jilin University, Changchun
130012, P. R. China

Email: gaoshang5566@126.com (Gao, W. R.); chengang@jlu.edu.cn (Chen, G.); xuwq@jlu.edu.cn
(Xu, W. Q.); yangcg13@mails.jlu.edu.cn (Yang, C. G.); xusp@jlu.edu.cn (Xu, S. P.)

*Corresponding Author

Address: State Key Laboratory of Supramolecular Structure and Materials, Jilin University,
2699 Qianjin Ave.Changchun 130012, P. R. China

Email:xusp@jlu.edu.cn

Tel: 86-431-85168505

Fax:86-431-85193421

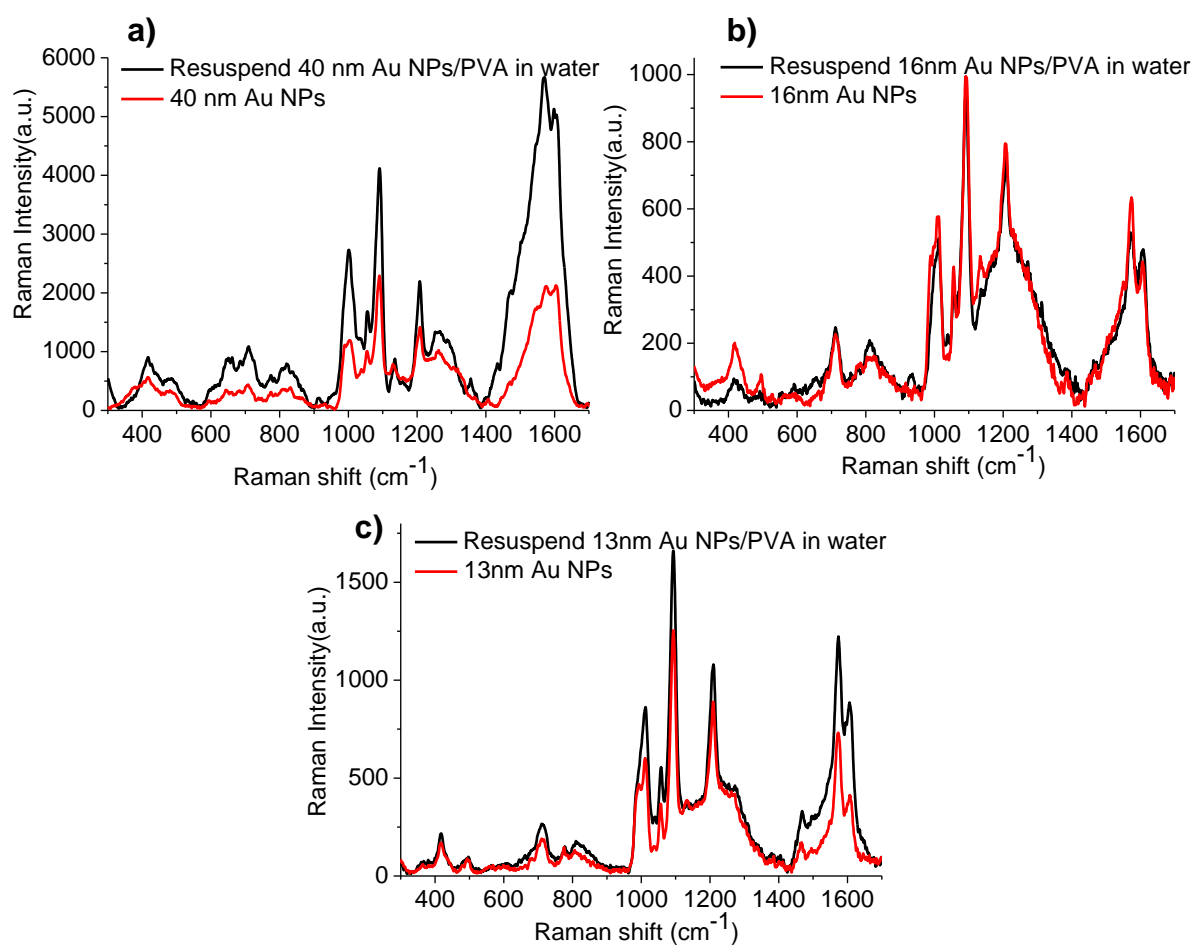


Figure S1. SERS spectra of 4-MPY (1×10^{-5} M) obtained from Au NP colloids or the dissolved Au NPs/PVA fibers on glass substrates under 633 nm excitation. a)-c); 13 , 16 and 40 nm Au NPs.

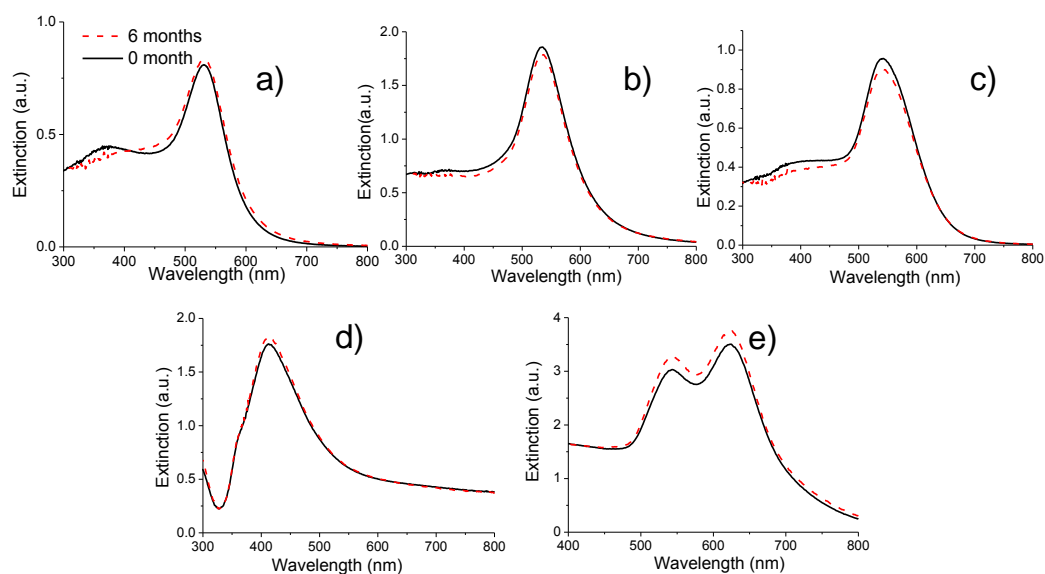


Figure S2. Extinction spectra of five kinds of metal NPs doped polymer fibers before (solid lines) and after 6 months storage (dash lines). a-e correspond to 13, 16 and 40 nm Au NPs, Ag NPs and Au nanorods, respectively.

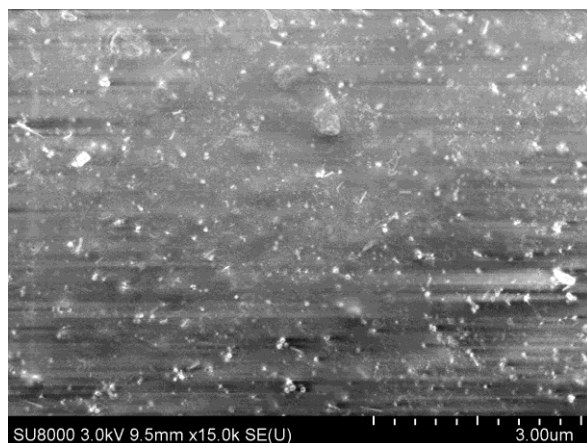


Figure S3. SEM image of SERS chip II after a 4-MPY aqueous solution was dripped on and dried.

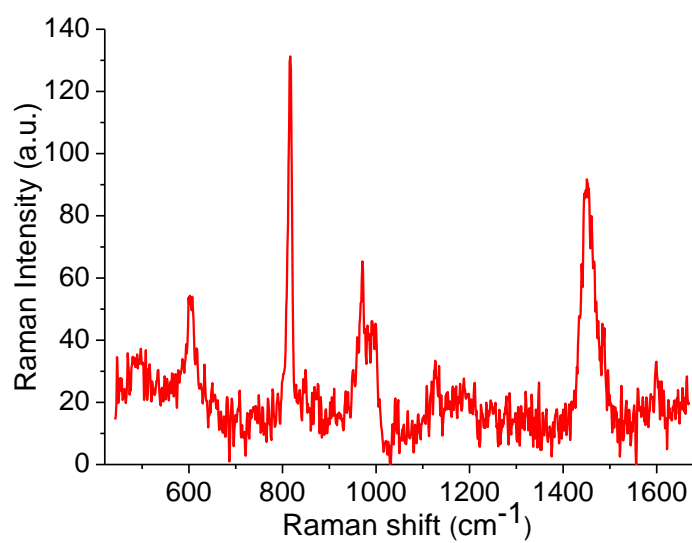


Figure S4. SERS spectrum of PMMA under 633 nm excitation.

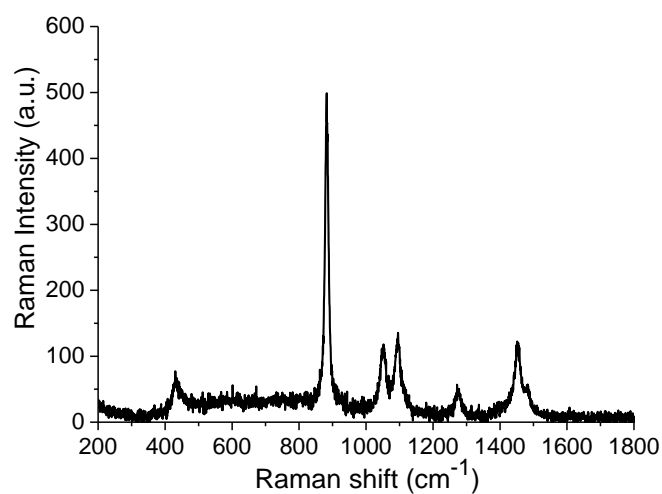


Figure S5. SERS spectrum of ethanol under 633 nm excitation.