

# **Preparation of Au Nanocolloids by *in Situ* Dispersion and Their Applications in SERS Films**

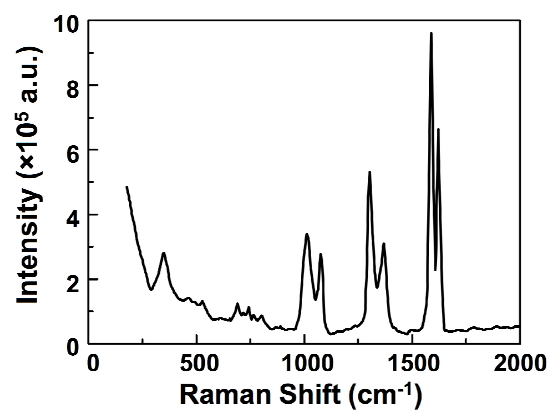
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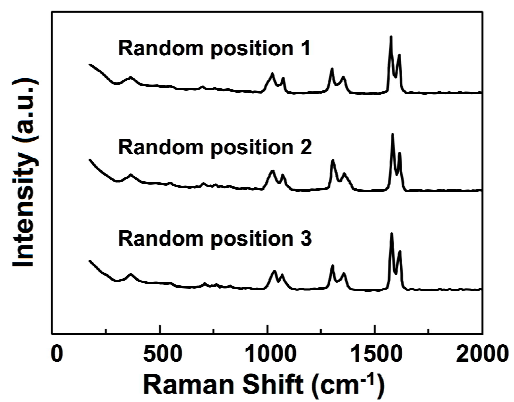
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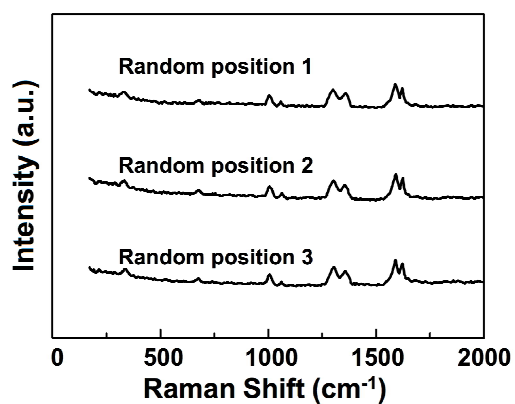
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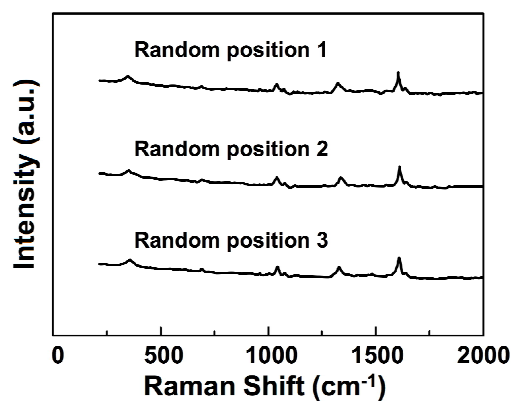
**Figure S1.** Normal Raman spectrum of pure BPE on the uncoated PDMS film.



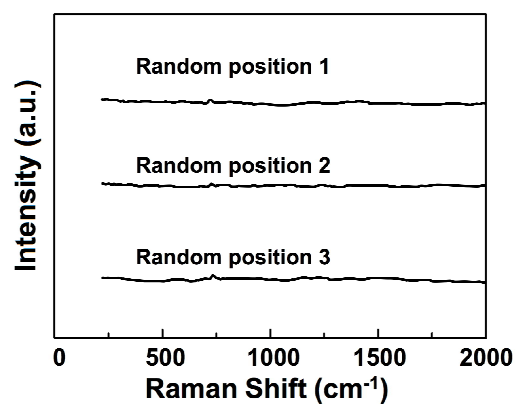
**Figure S2.** Raman spectra of BPE solutions across the surface of Film 1 (random positions): 100 ppb of BPE.



**Figure S3.** Raman spectra of BPE solutions across the surface of Film 1 (random positions): 10 ppb of BPE.



**Figure S4.** Raman spectra of BPE solutions across the surface of Film 2 (random positions): 100 ppb of BPE.



**Figure S5.** Raman spectra of BPE solutions across the surface of Film 2 (random positions): 10 ppb of BPE.