

## Supplementary Information

### Hydrophobicity-driven self-assembly of protein and silver nanoparticles for protein detection using surface-enhanced Raman scattering

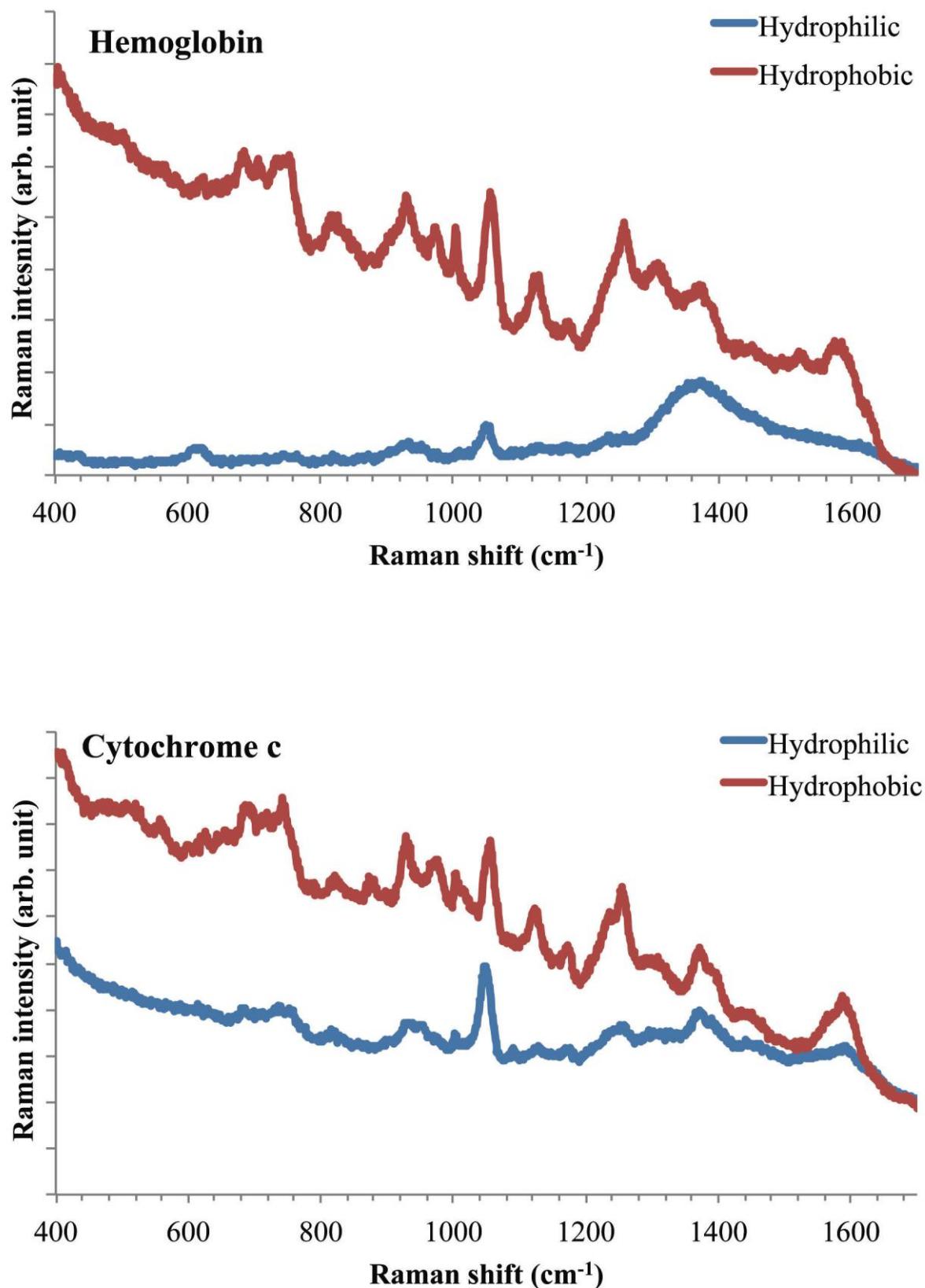
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**Figure 1.** Comparison of SERS spectra obtained from the mixture of 50  $\mu\text{g}/\text{mL}$  of hemoglobin and cytochrome c and 16X AgNPs dropped onto hydrophilic and hydrophobic surfaces.

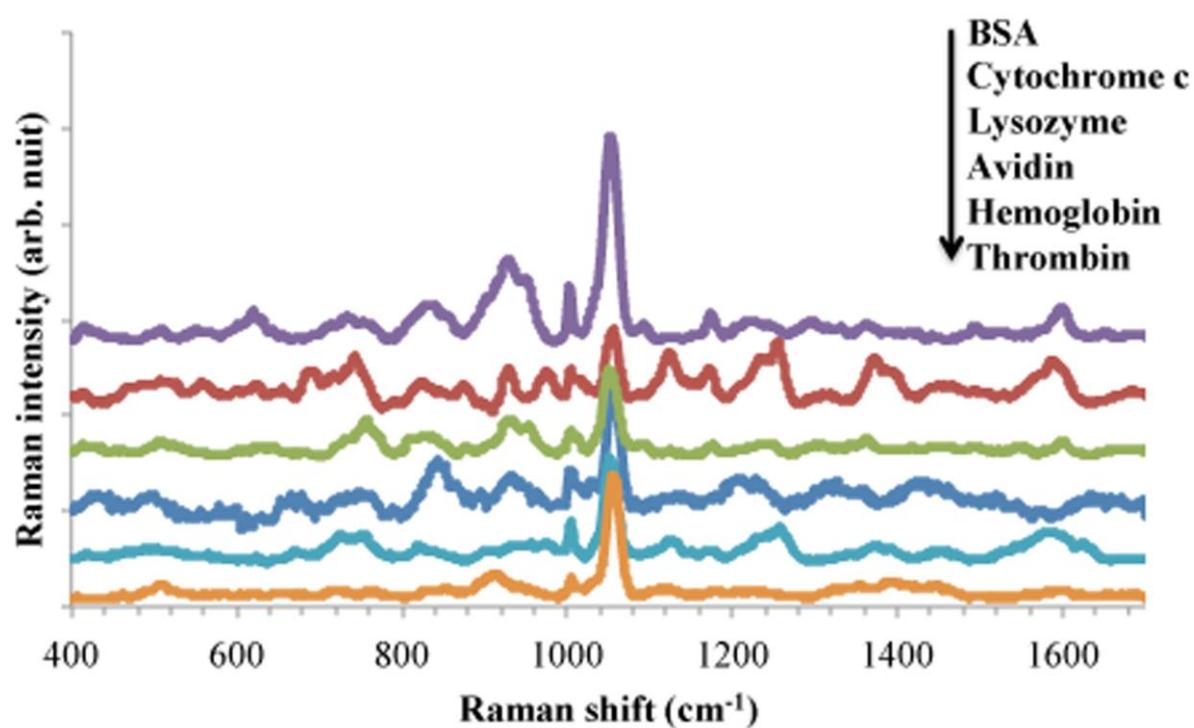
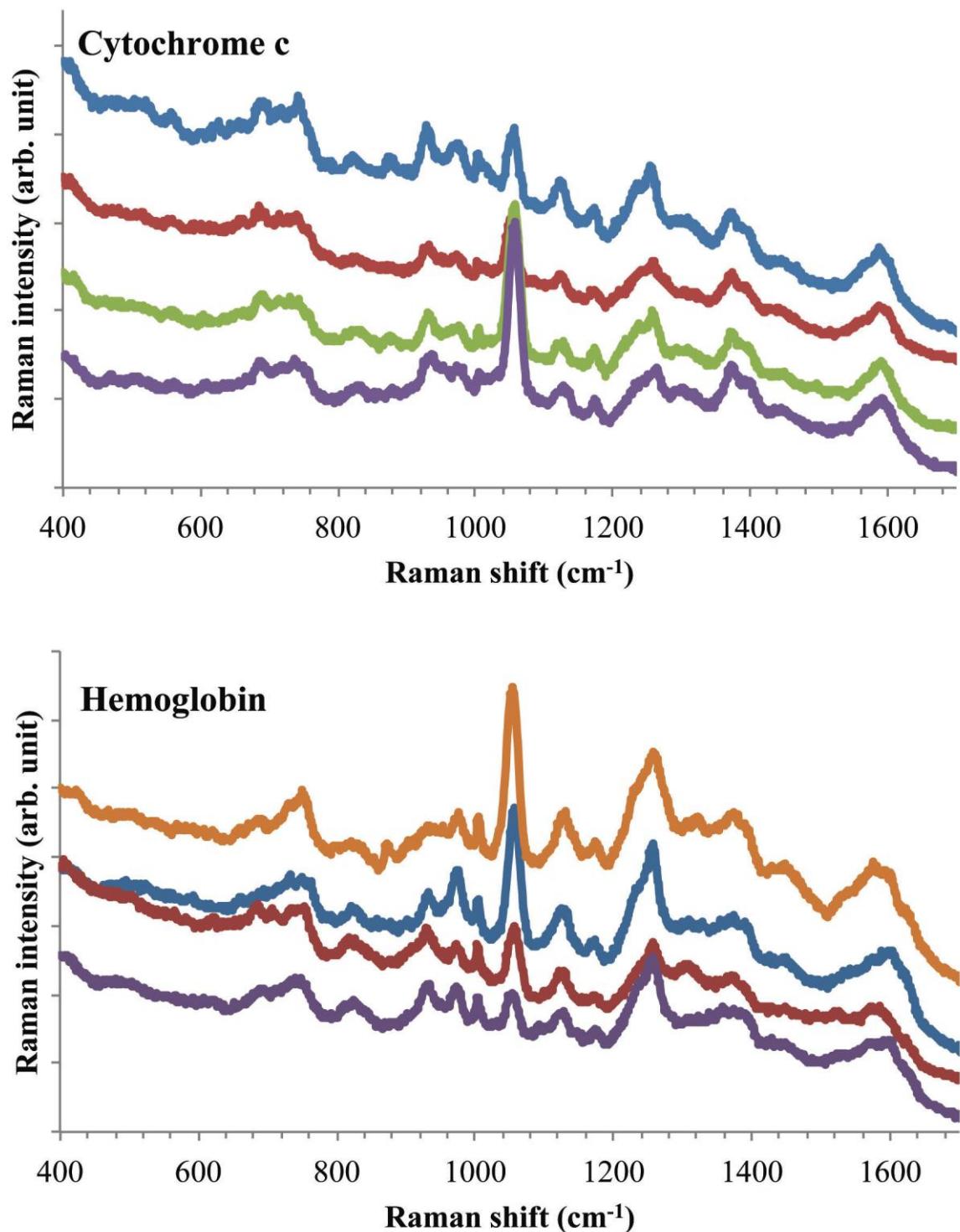


Figure 2. SERS spectra of each protein obtained from the mixture of 16X AgNPs and 50  $\mu\text{g/mL}$  protein solutions.



**Figure 3.** SERS spectra obtained from the mixture of 50  $\mu\text{g}/\text{mL}$  of cytochrome c and hemoglobin using different protein stock solutions and 16X AgNPs prepared in different days.