Supplementary Material (ESI) for *Nanoscale*

Supporting Information

Surface Plasmon Resonance of gold nanoparticles assemblies at liquid | liquid interfaces

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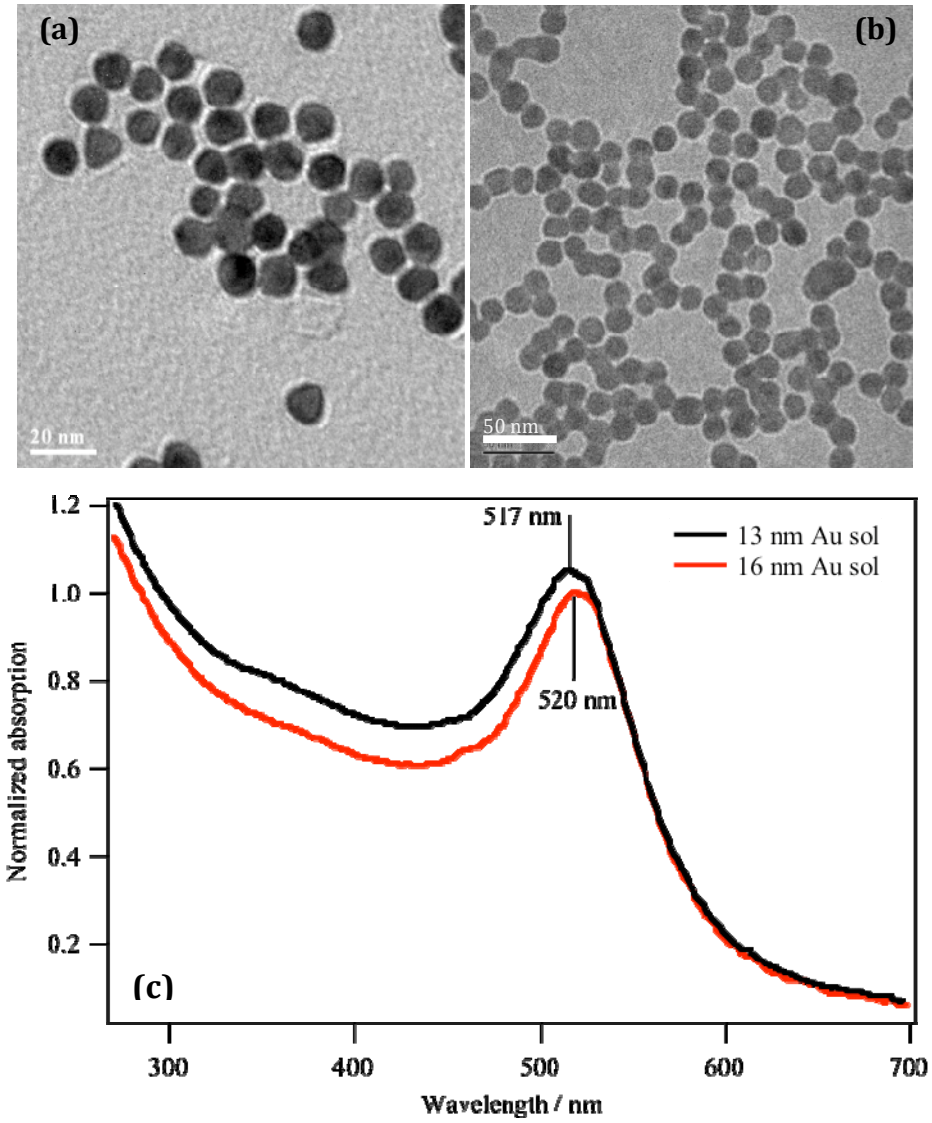

Figure S1. TEM micrograph of as-prepared 13 nm (a) and 16 nm (b) gold nanoparticles. The corresponding UV-vis spectrum are also shown (c).

Figure S2. Photo of the methanol-induced using 16 nm as-prepared gold nanoparticles film at water | DCE interface.

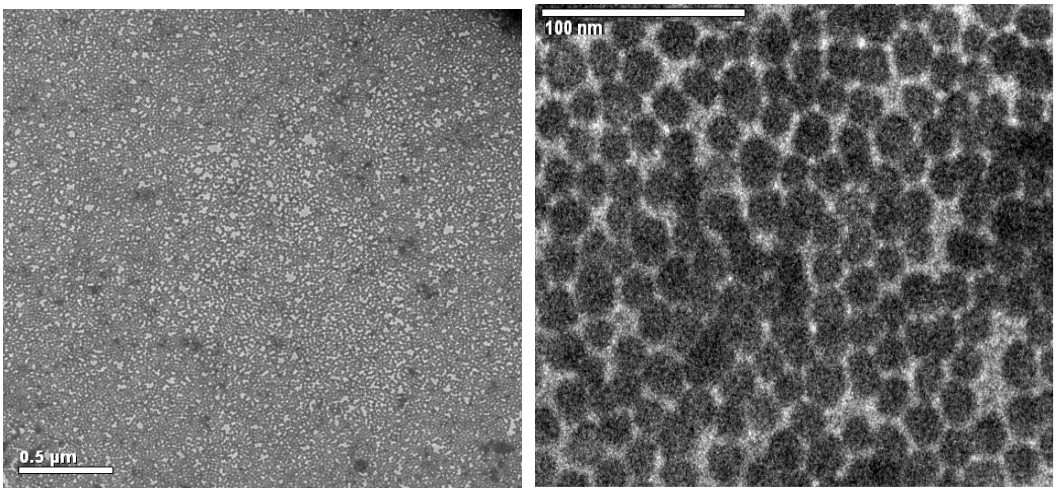

Figure S3. TEM micrographs of the 16 nm Au NPs film at different resolutions. The line in the bottom left corner represents 0.5 μm (left) and the line in the upper left corner represents 100 nm (right). In order to do the TEM of the formed film at the liquid | liquid interface, a part of the film was carefully "scooped" to the copper grids by slowly sliding off the films. The films where then dried under nitrogen atmosphere. The micrographs show a homogeneous, monolayer compact film with a thickness of almost 16 nm (average size of the nanoparticles).