

Supplementary Information

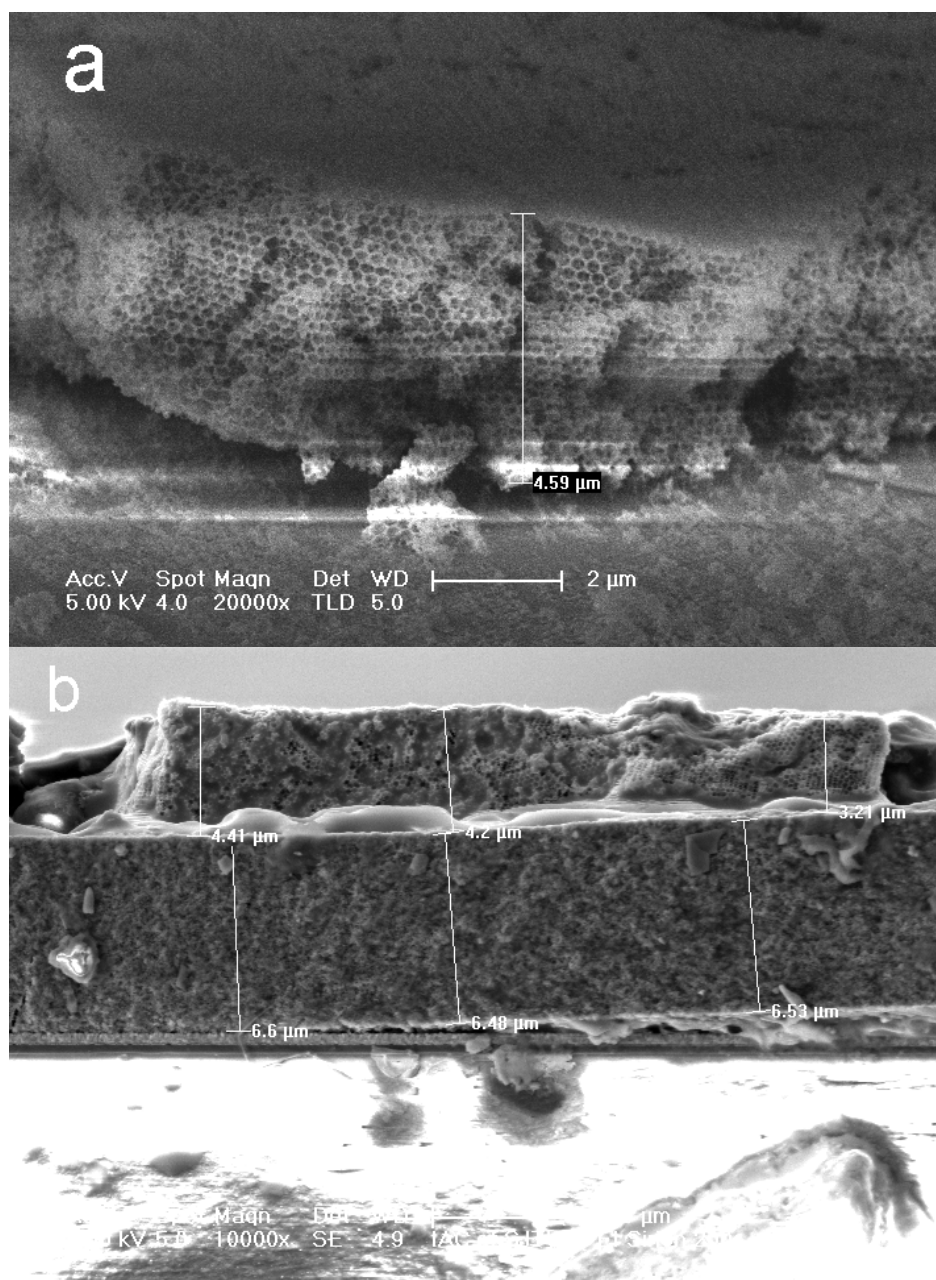
Photonic Crystals Coupling Plasmonic Nanoparticles Array for Resonant Enhancement of Light Harvesting and Power Conversion

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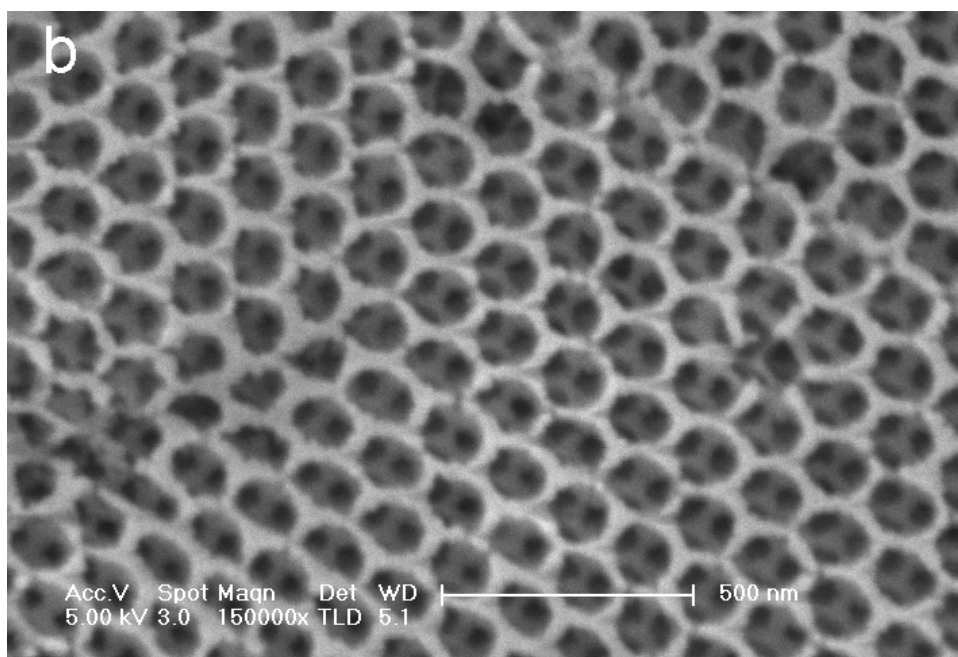
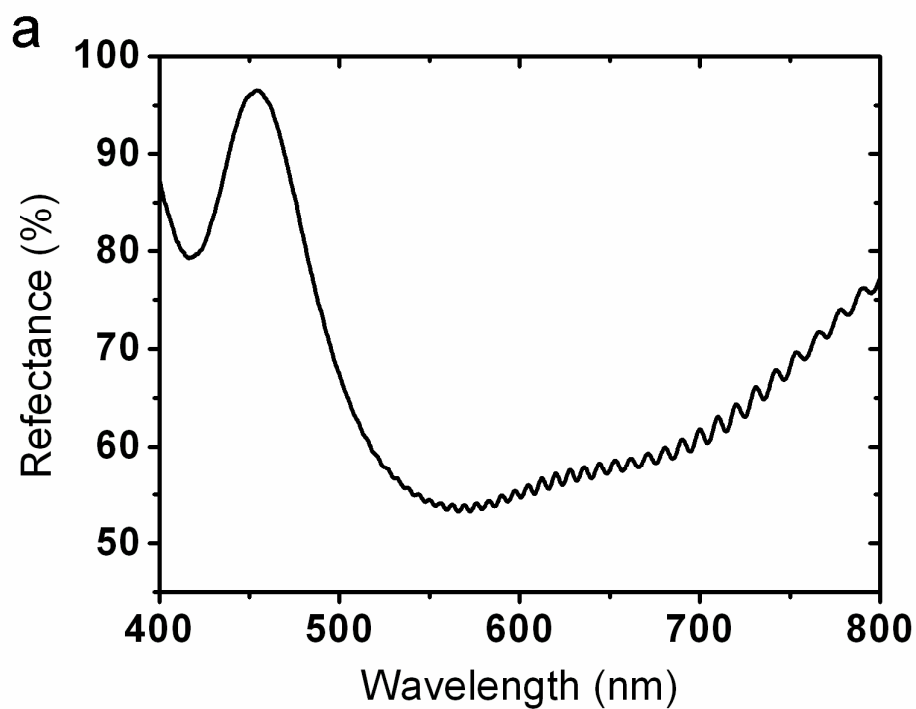
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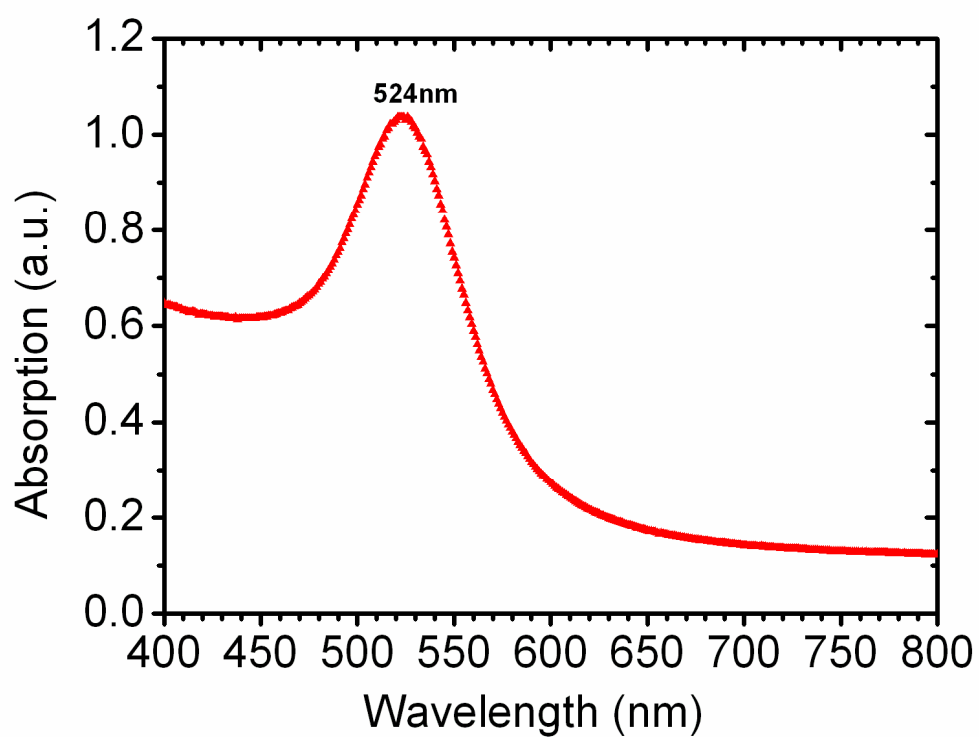
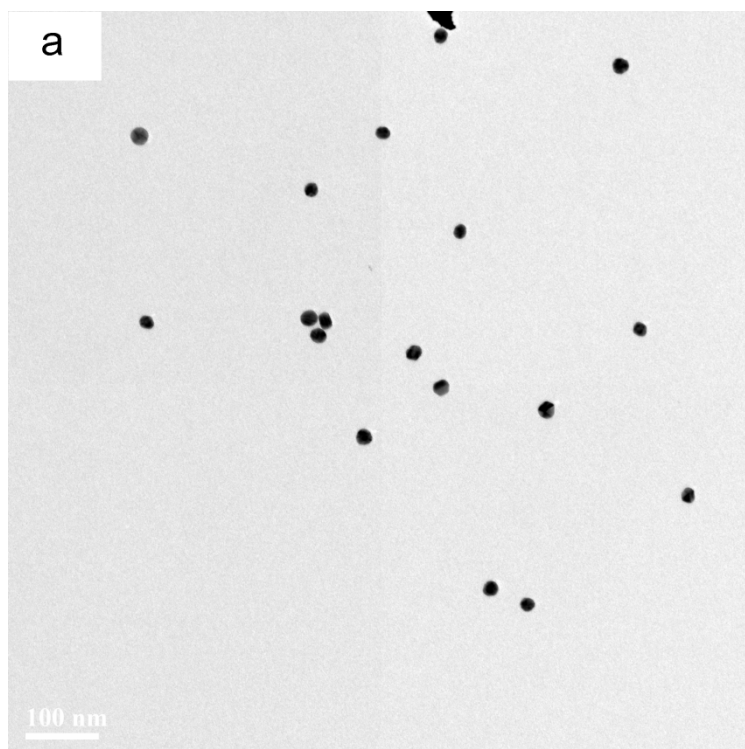


Supplementary Figure S1. (a) Side views of pc-TiO₂ film. (b) Side views of a two-layer film with one nc-TiO₂ layer and one pc-TiO₂ layer.

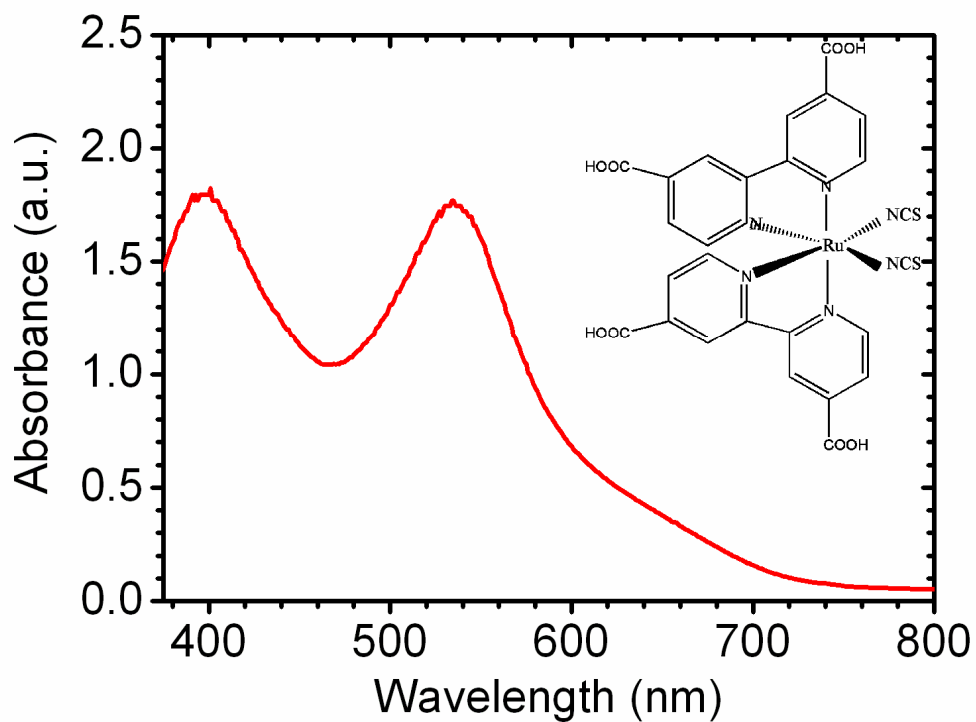


Supplementary Figure S2. (a) Reflective spectrum of an inverse opal TiO_2 film with 204 nm macropores (with a reflection peak at 456 nm). The data is obtained by a Maya2000-Pro Spectrometer and taking a common mirror as a reflective reference,

which reflections is 100% for all wavelength light. (b) SEM morphology of an inverse opal TiO_2 with 204 nm macropores.



Supplementary Figure S3. (a) TEM morphology and (b) light absorption of 20 nm Au nanoparticles with 29.4 mM concentration in an aqueous solution.



Supplementary Figure S4. Absorption of N3 in a 0.125 mM alcohol solution. Inset: molecular structure of N3.