Supporting information

Toward ultrathin gold nanoshells:

exploring seed density, polymer additives and microwaves radiation effects

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This section contains supplemental figures including TEM and HRTEM images of the core@shell particles synthesised at different conditions.

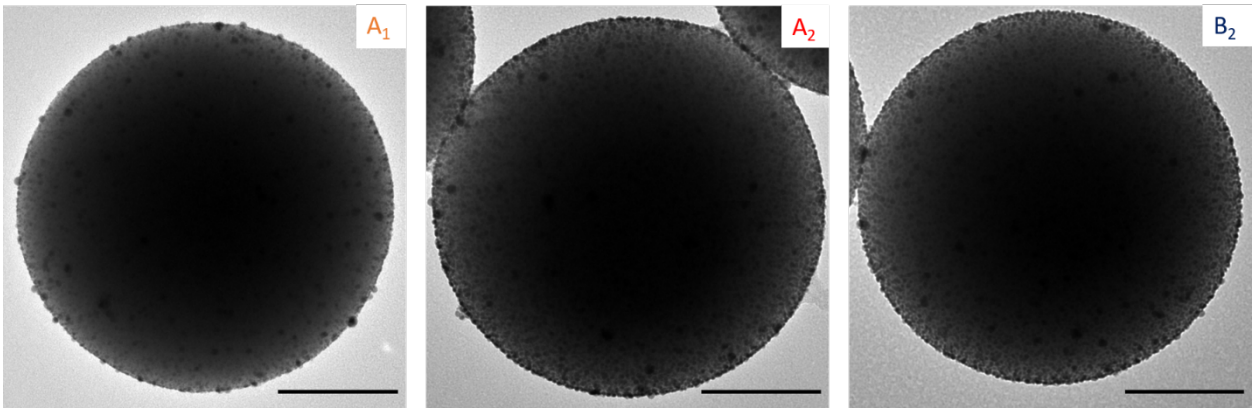

Figure S1. Transmission electron micrographs of functionalised silica covered with different gold seed densities, labelled as in Figure 1. Scale bars represent 100 nm.

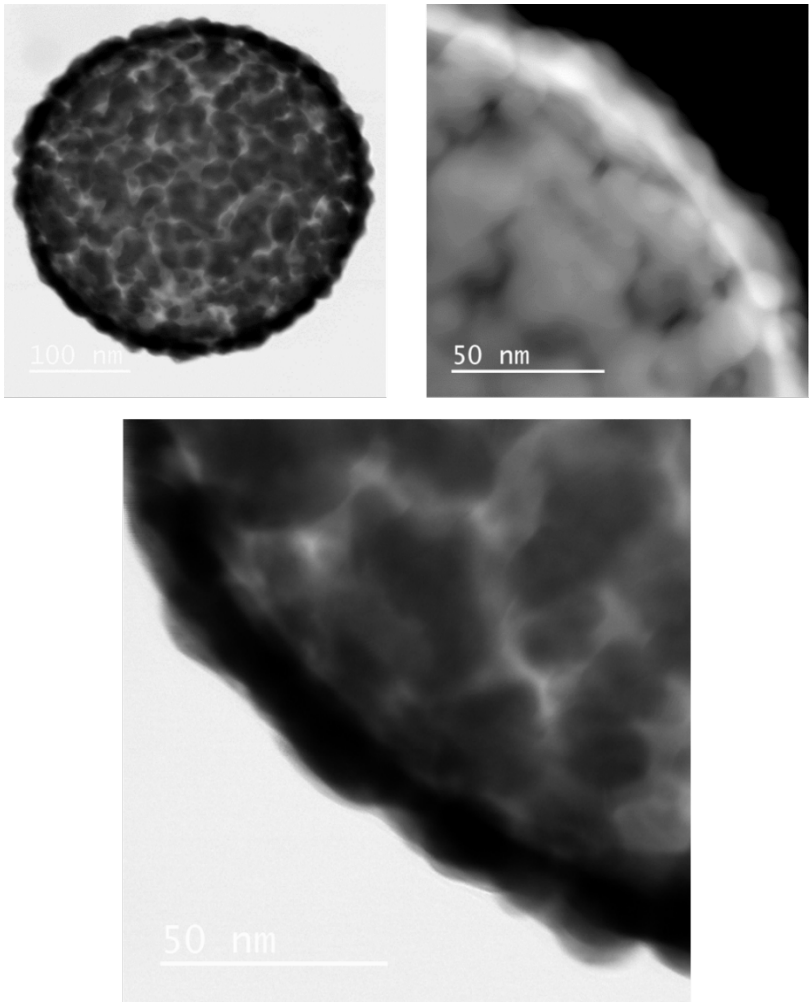

Figure S2. TEM images of the core@shell particles, synthesised without PVP, corresponding to Figure 2e. The average shell thickness is about 12 nm.

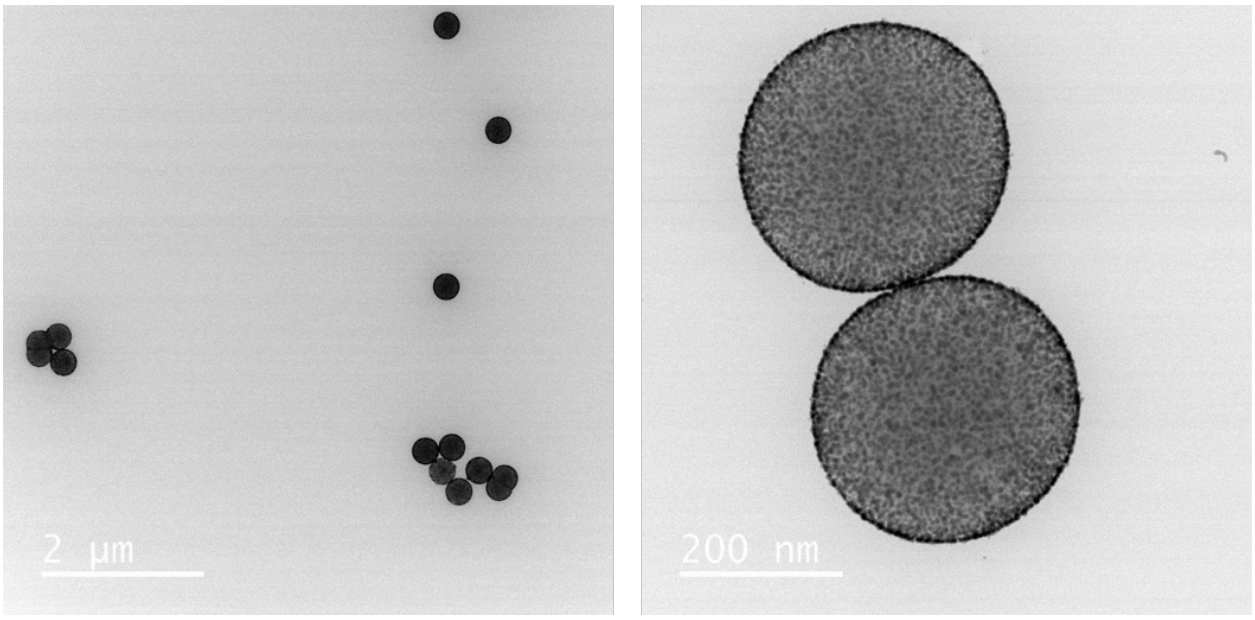

Figure S3. TEM images of the core@shell particles synthesised with PVP, corresponding to the sample 2 on Figure 4c.

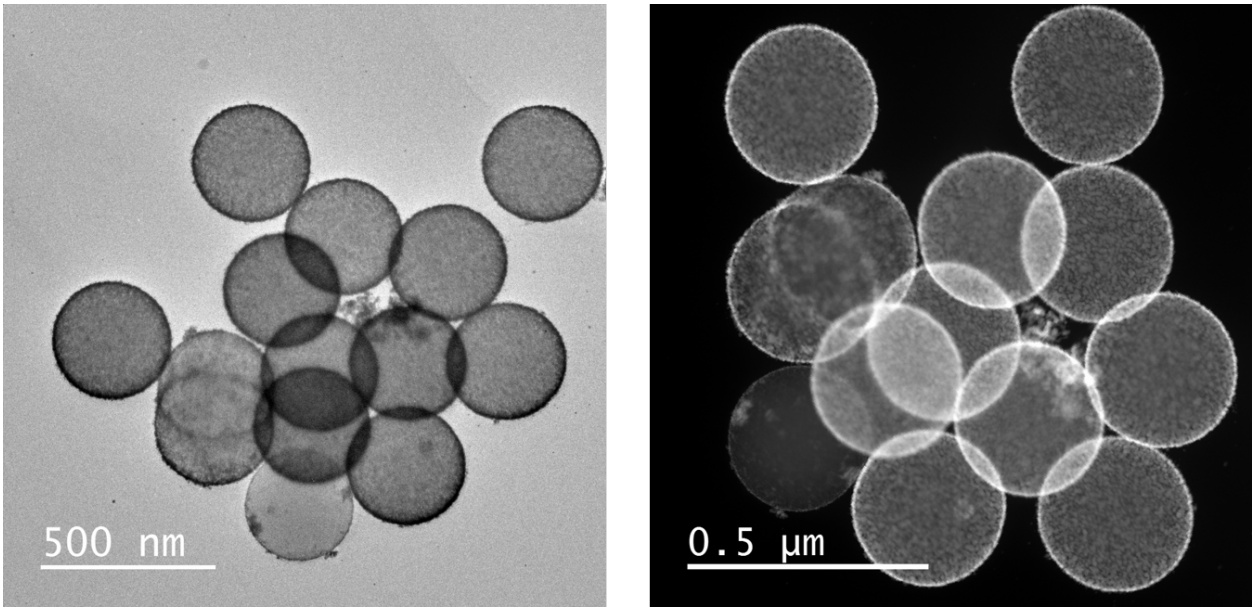

Figure S4. TEM images of the particles, with ultrathin shell, corresponding to sample 3 on Figure 4c.

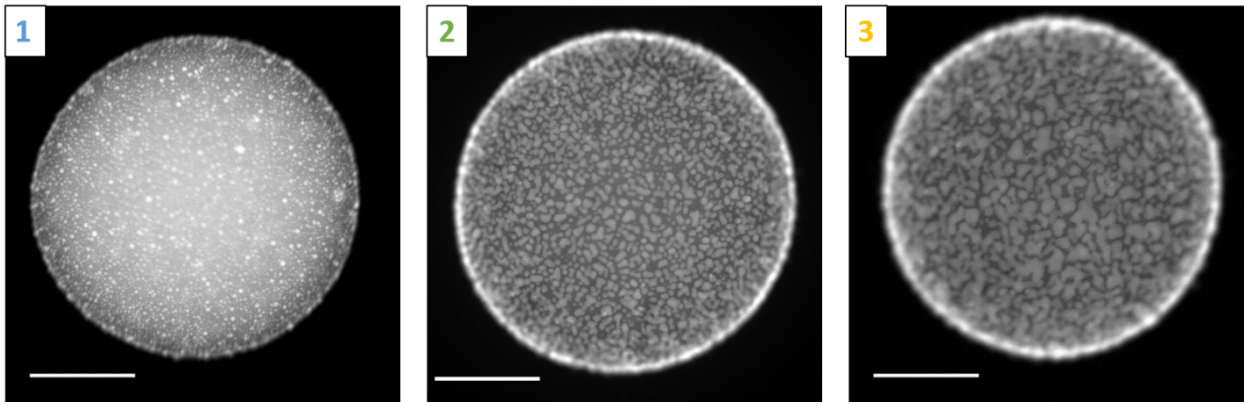

Figure S5. HAADF STEM high magnification images of the core@shell synthesized with PVP at different intermediate stages during the shell growth. The PVP favors the growth parallel to the silica surface. Scale bars represent 100 nm.

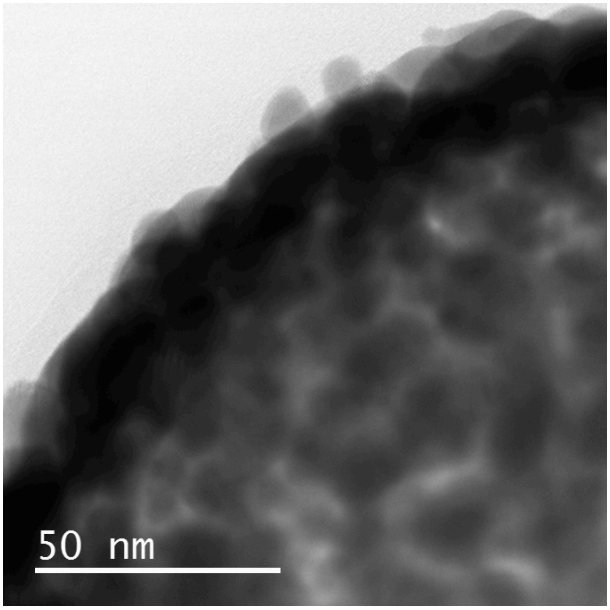

Figure S6. High magnification image of the core@shell particles synthesized after a microwave treatment of 1 min at 140°C.