Morphology control and temporal growth of continuous silver shell on core–shell spheres

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**Fig. S1** SEM images of the Fe@TiO$_2$@Ag core–shell spheres obtained in the absence of trisodium citrate. The reaction condition was identical with those shown in Fig. 2a.
**Fig. S2** Schematic diagram and practical evidence of Ag shell as a mirror: (a) ideal case as a perfect mirror, (b) non-ideal case by electroless deposition leading to low reflectance, and (c) SEM images of typical defects of Ag shell, void defect and low profile defect, respectively.
**Fig. S3** SEM images of the Fe@TiO$_2$@Ag core–shell spheres showing temporal growth of Ag shell at different concentrations of the trisodium citrate: (a-c) with 0.45 mM of the trisodium citrate, taken at 10 s, 30 s, and 7 min, respectively, (d-f) with 1.80 mM of the trisodium citrate, taken at 10 s, 30 s, and 7 min, respectively. Insets show corresponding low magnification images of each resultant sphere.