[Electronic Supplementary Information]

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

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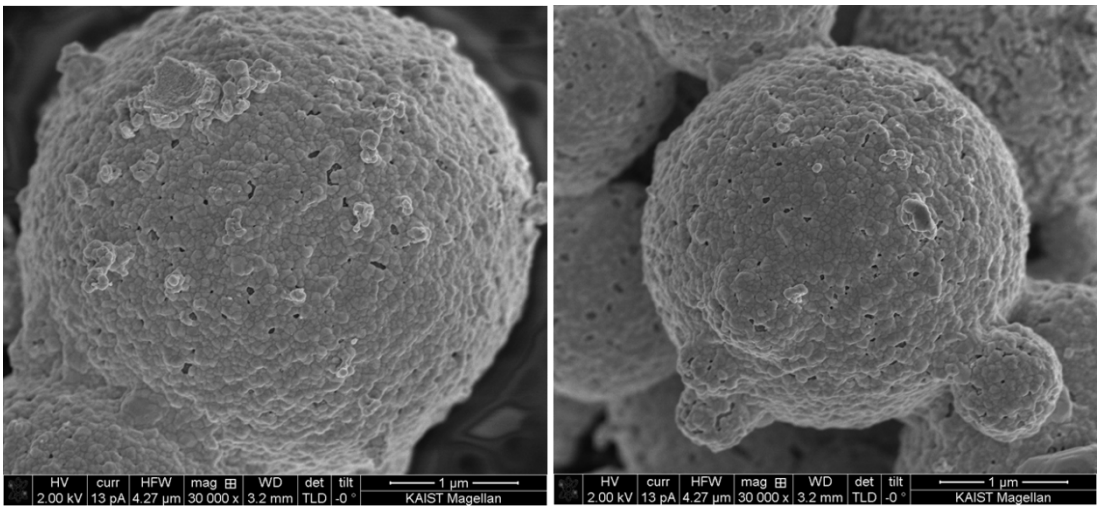

Fig. S1 SEM images of the Fe@TiO_2@Ag core–shell spheres obtained in the absence of trisodium citrate. The reaction condition was identical with those shown in Fig. 2a.

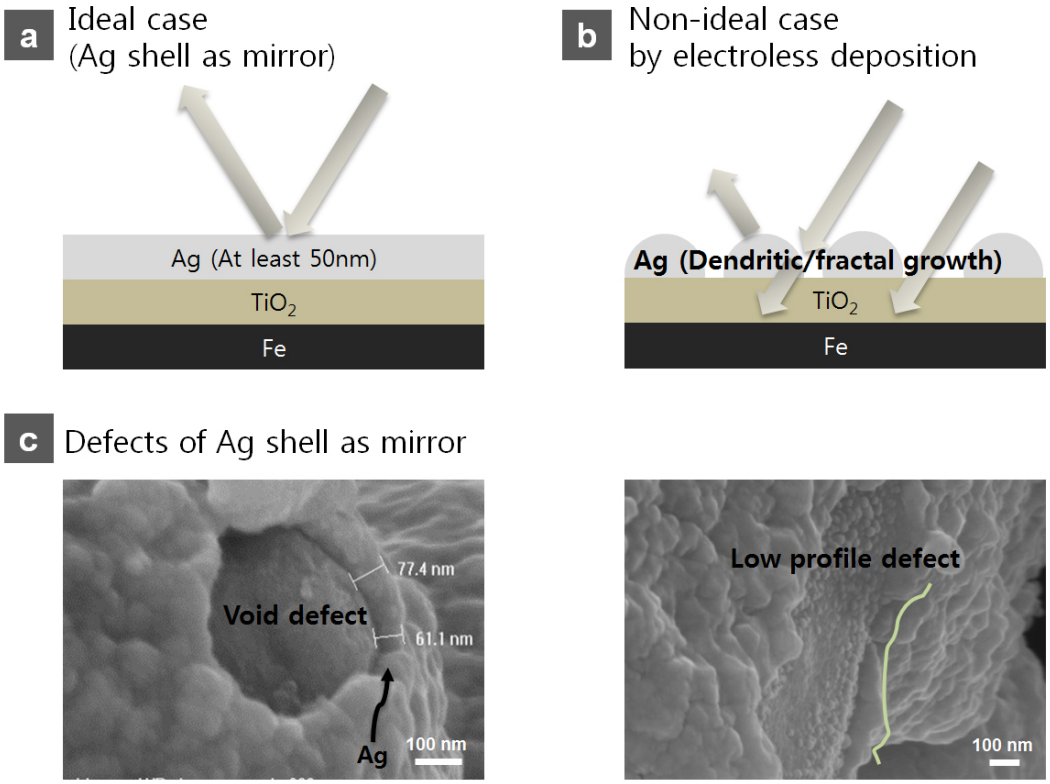

Fig. S2 Schematic diagram and practical evidence of Ag shell as a mirror: (a) ideal case as a perfect mirror, (b) non-ideal case by electroless deposition leading to low reflectance, and (c) SEM images of typical defects of Ag shell, void defect and low profile defect, respectively.

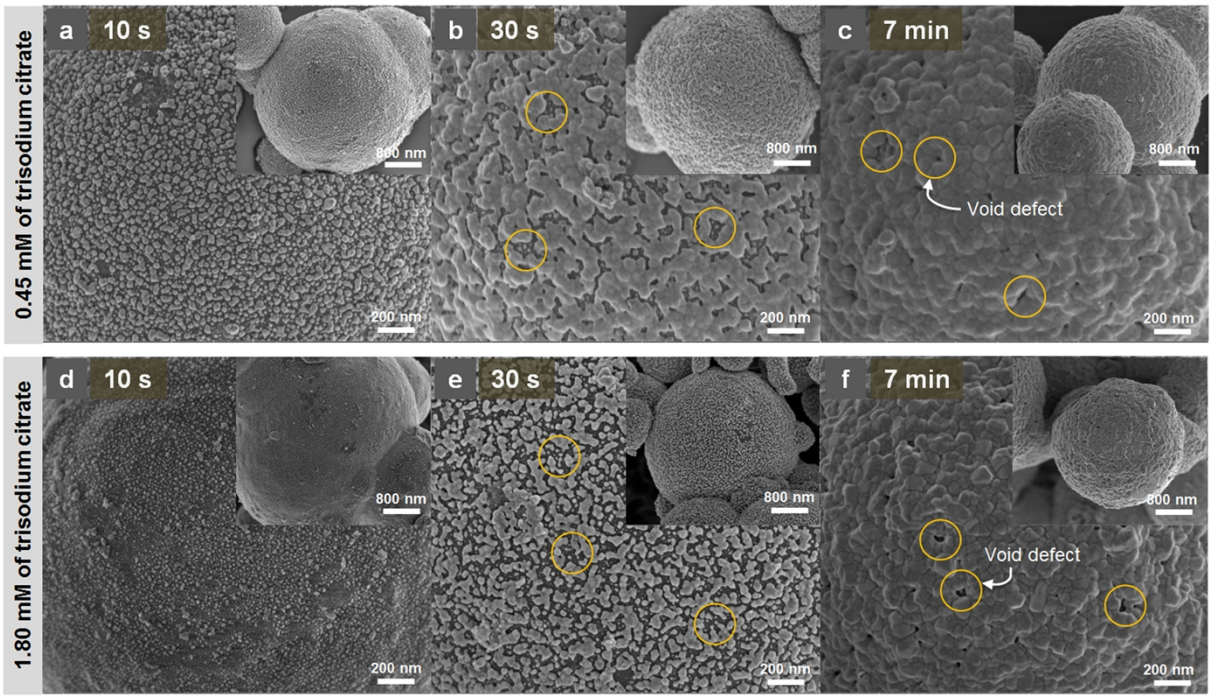

Fig. S3 SEM images of the Fe@TiO_2@Ag core–shell spheres showing temporal growth of Ag shell at different concentrations of the trisodium citrate: (a-c) with 0.45 mM of the trisodium citrate, taken at 10 s, 30 s, and 7 min, respectively, (d-f) with 1.80 mM of the trisodium citrate, taken at 10 s, 30 s, and 7 min, respectively. Insets show corresponding low magnification images of each resultant sphere.