

Electronic Supplementary Information

SCO@SiO₂@Au core-shell nanomaterials: enhanced photo-thermal plasmonic effect and spin-crossover properties

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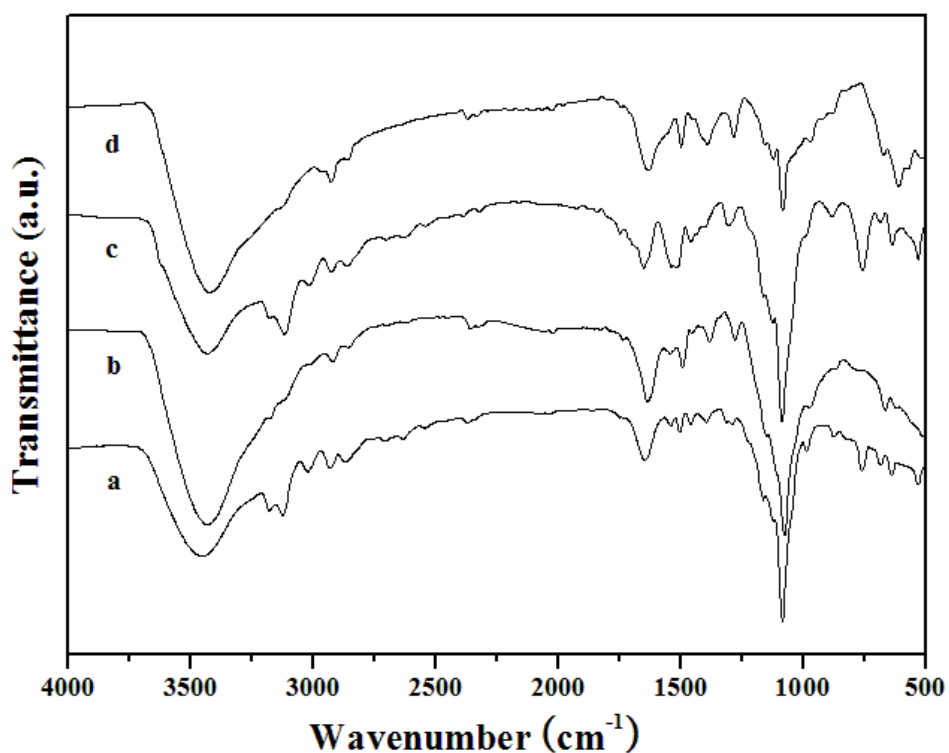
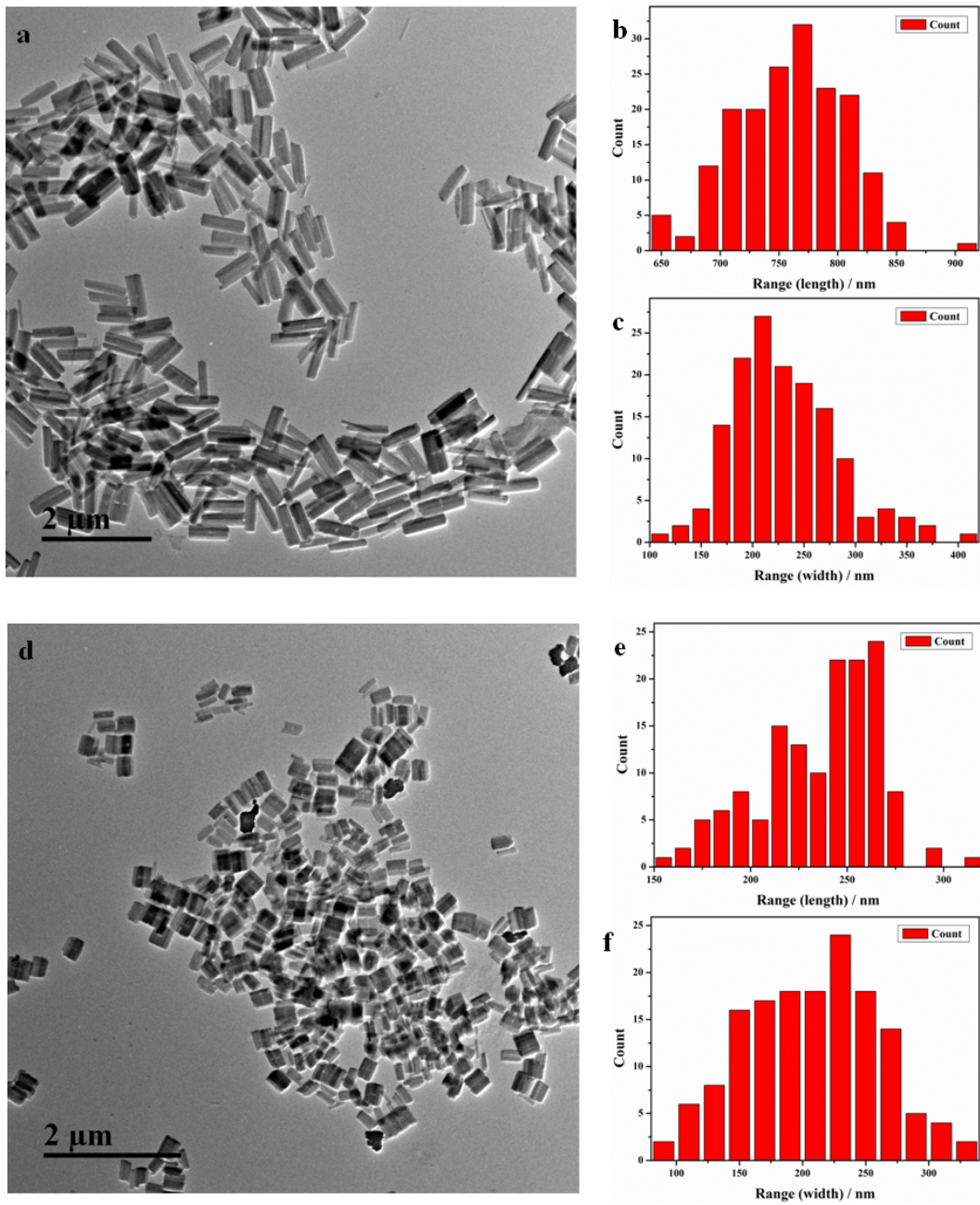


Fig. S1 FT-IR spectra of as-prepared SCO@SiO₂-1 (a), SCO@SiO₂-2 (c), SCO@SiO₂@Au-1 (b) and SCO@SiO₂@Au-2 (d).



Obtained mean dimensions	Length (nm)	Width (nm)
SCO@SiO ₂ -1	760	230
SCO@SiO ₂ -2	230	200

Fig. S2 TEM images as-prepared SCO@SiO₂-1 (a), SCO@SiO₂-2 (d). Size distribution histogram and statistics of SCO@SiO₂-1 (b, c), SCO@SiO₂-2 (e, f).

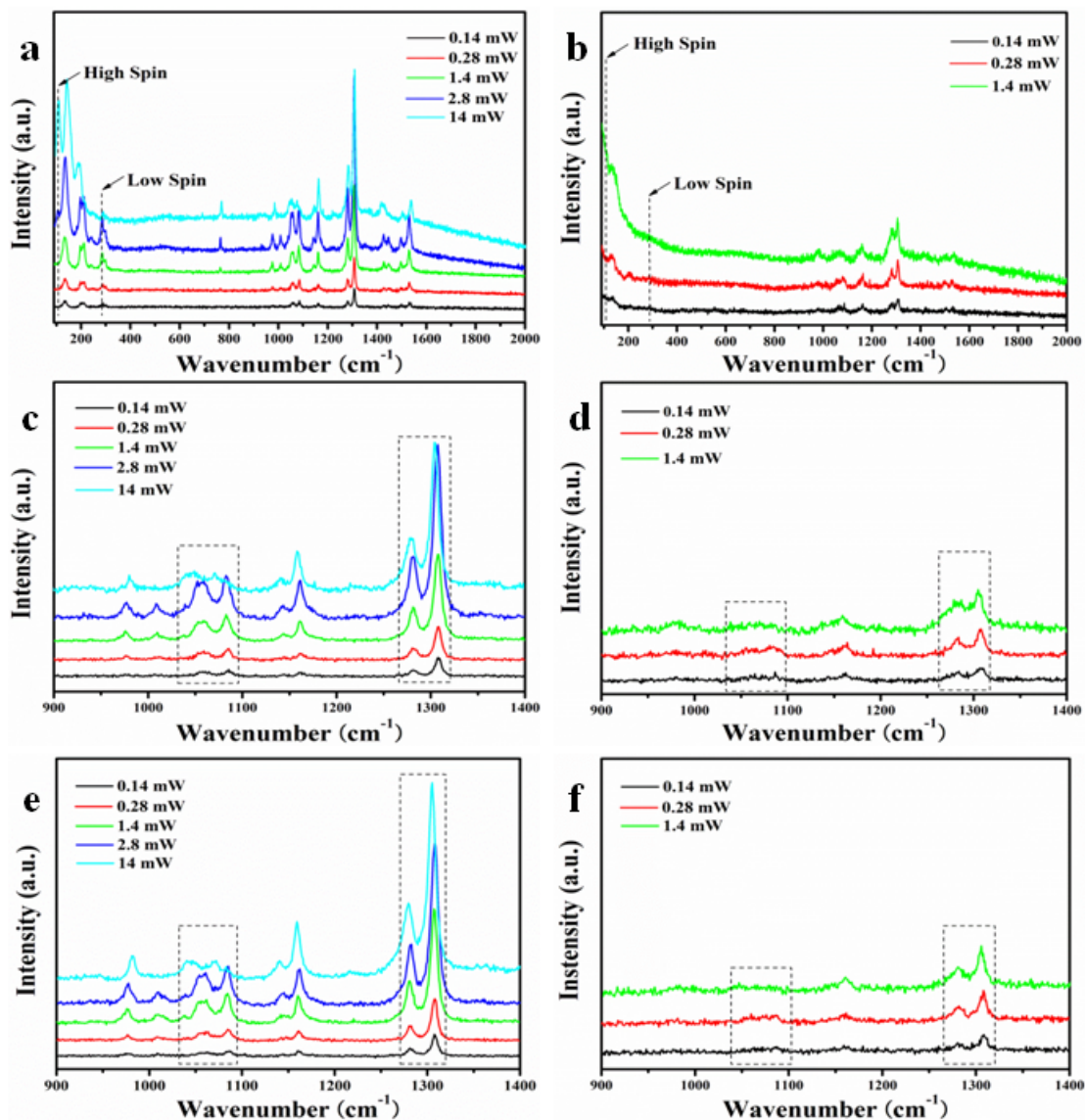
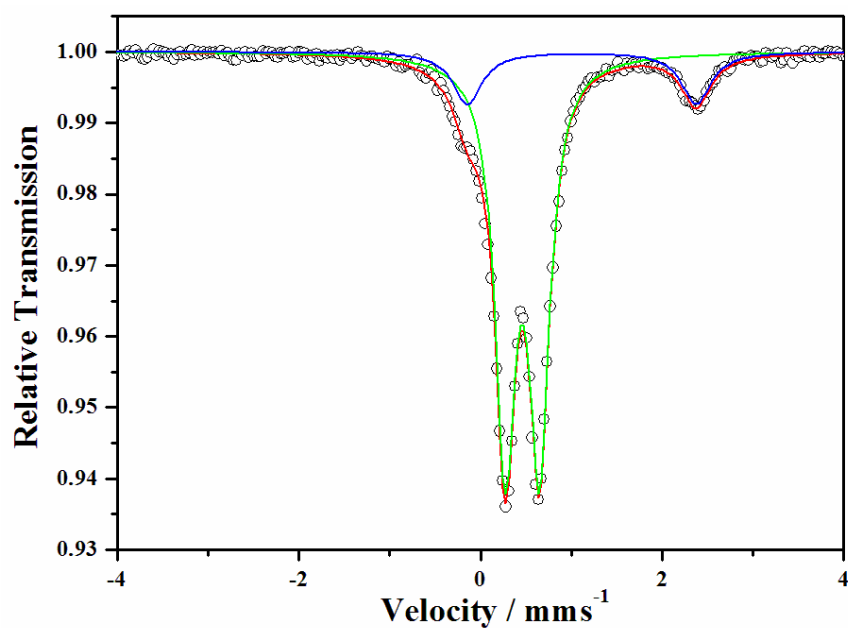


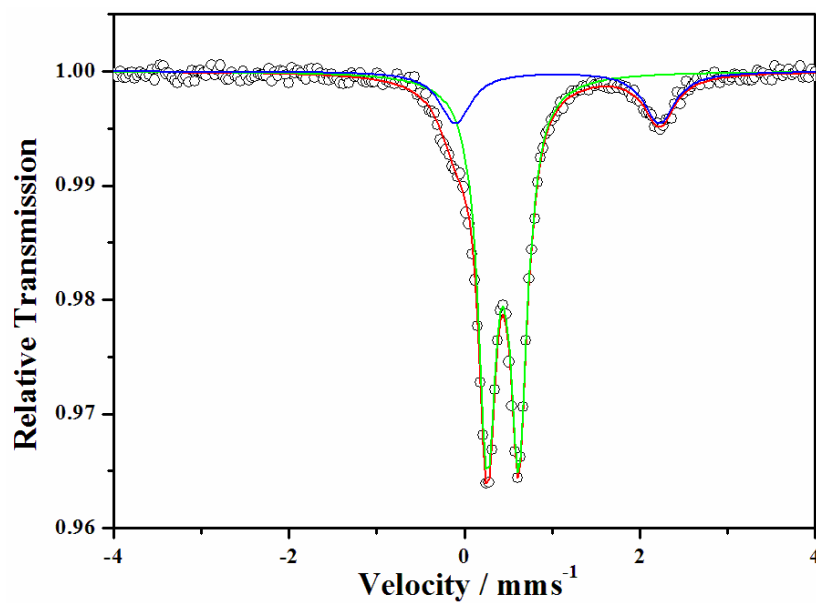
Fig. S3 Raman spectra of as-prepared SCO@SiO₂-2 (a), SCO@SiO₂@Au-2 (b). Magnified Raman spectra of SCO@SiO₂-2 (c), SCO@SiO₂@Au-2 (d), SCO@SiO₂-1 (e), SCO@SiO₂@Au-1 (f) with a range of 900-1400 cm⁻¹.

(a)



I.S.	Q.S.	fwhm	d[%]	rel_I. [%]
0.46	0.38	0.27	5.57	84.40
1.12	2.52	0.39	0.73	15.60

(b)



I.S.	Q.S.	fwhm	d[%]	rel_I. [%]
0.44	0.36	0.25	3.18	80.52
1.06	2.33	0.43	0.45	19.48

Fig. S4 Mössbauer spectra of SCO@SiO₂-1 (a), SCO@SiO₂-2 (b) at 300 K.