



Supplementary

## Star-Shaped Fe<sub>3-x</sub>O<sub>4</sub>-Au Core-Shell Nanoparticles: From Synthesis to SERS Application

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**Figure S1.** DLS measurements of Fe<sub>x</sub>O<sub>4</sub>-Au NSs using hydroquinone as reducing agent with different *r* ratios: a) Fe<sub>x</sub>O<sub>4</sub>-NH<sub>2</sub>, b) r = 10, c) r = 4, d) r = 2, and e) r = 0.5.

Table S1. Summary of the main data: size (SEM), hydrodynamic diameter, PDI and SPR of FexO4-Au
NSs using hydroquinone as reducing agent with different $r$ ratios of 10, 4, 2 and 0.5.

Sample	dseм (nm)	ddls (nm)	PDI	λ(nm)
Fe40-NH <sub>2</sub>	180	189.0	0.07	-
Fe40-AuR10	210	225.4	0.12	530
Fe40-AuR4	240	265.7	0.24	600
Fe40-AuR2	260	324.5	0.30	650
Fe40-AuR0.5	280	422.2	0.45	680