

## Supporting Information

### **Water Soluble Magnetic CoO Nanocrystals Functionalized with Surfactants as $T_2$ -weighed MRI Contrast Agents *in Vitro***

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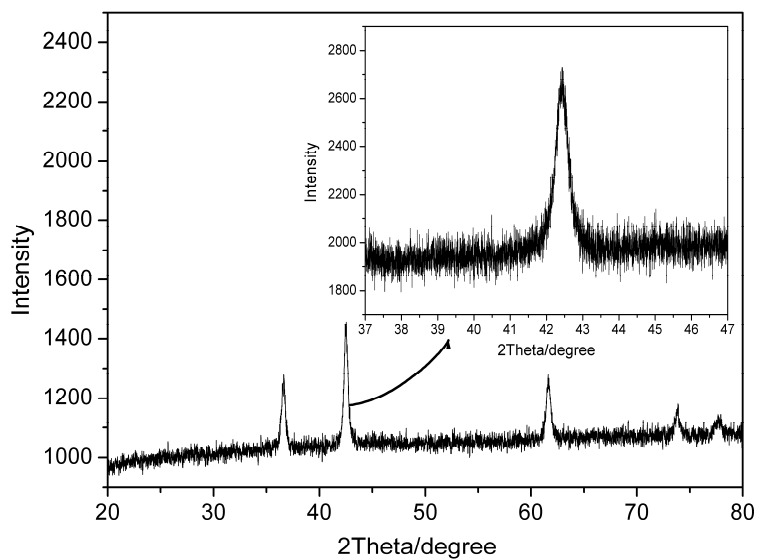


Figure S1. X-ray diffraction (XRD) patterns of as-synthesized CoO NPs. Inset: X-ray diffraction (XRD) patterns of as-synthesized CoO NPs measured from 37 to 47 degree.

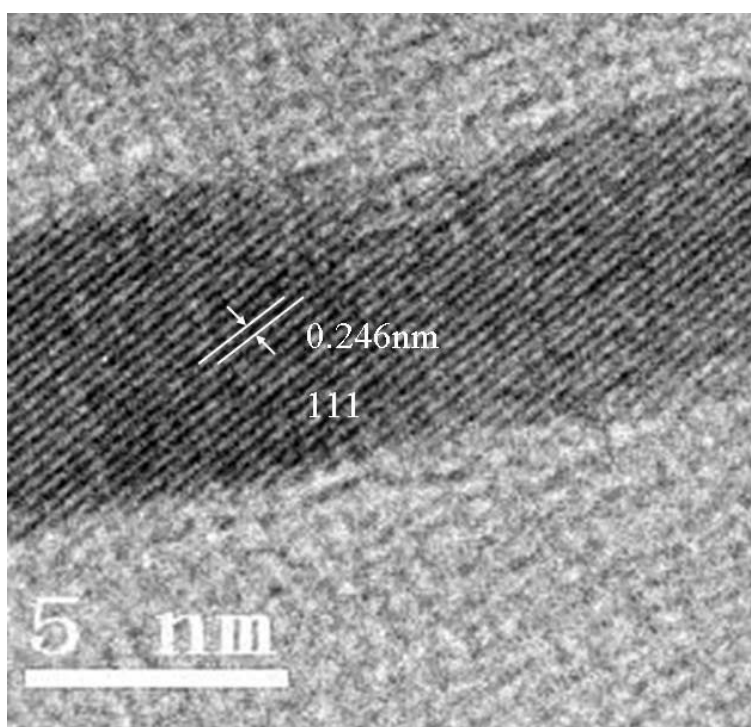


Figure S2. The high-resolution TEM image of as-synthesized CoO NPs.

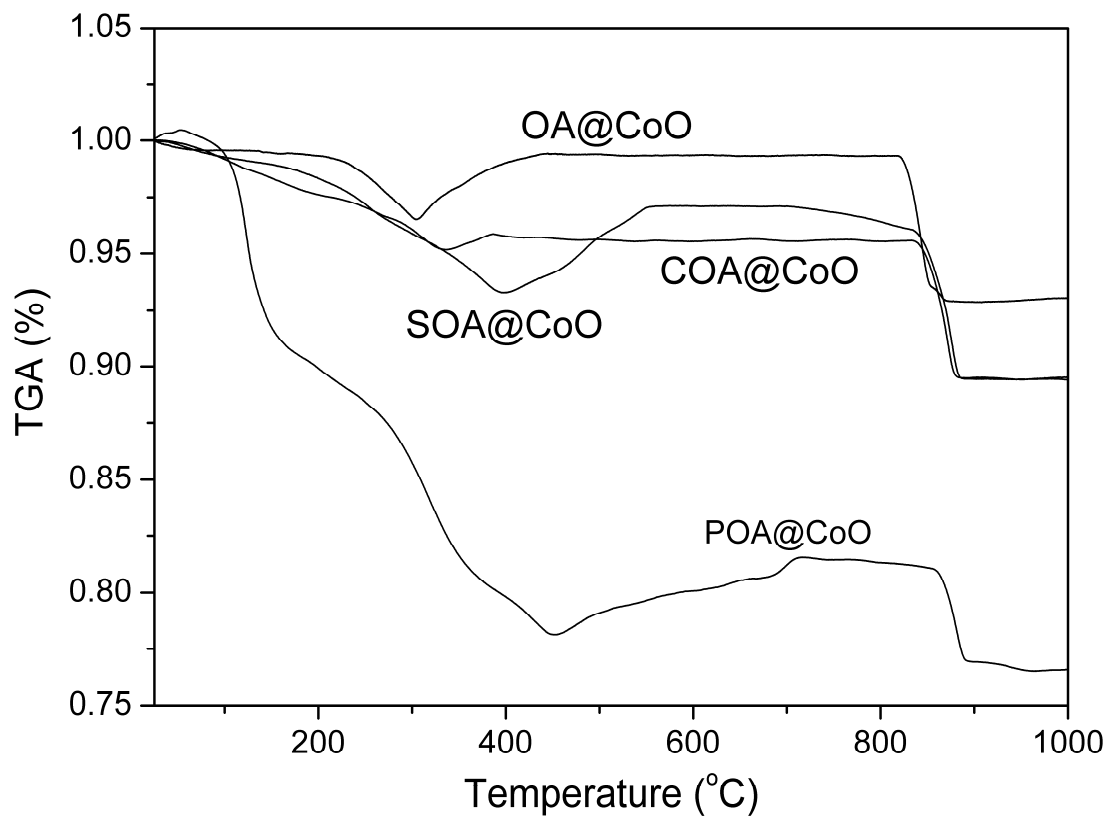


Figure S3. The thermogravimetric analysis of oleic acid-capped CoO nanocrystals, COA@CoO, POA@CoO and SOA@CoO.

	Diam. (nm)	% Intensity	Width (nm)
<b>Z-Average (d.nm):</b> 149.4	<b>Peak 1:</b> 169.7	98.1	72.02
<b>Pdl:</b> 0.181	<b>Peak 2:</b> 4613	1.9	822.1
<b>Intercept:</b> 0.970	<b>Peak 3:</b> 0.000	0.0	0.000

**Result quality :** Good

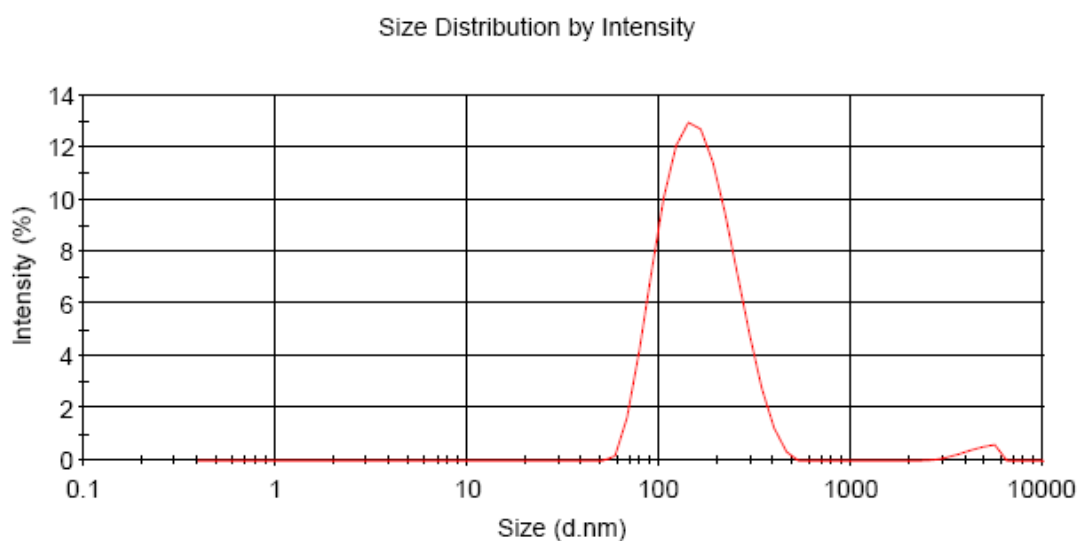


Figure S4. Dynamic light scattering (DLS) of COA@CoO.

	Diam. (nm)	% Intensity	Width (nm)
<b>Z-Average (r.nm):</b> 435.9	<b>Peak 1:</b> 316.3	90.6	71.02
<b>Pdl:</b> 0.483	<b>Peak 2:</b> 104.2	9.4	13.97
<b>Intercept:</b> 0.990	<b>Peak 3:</b> 0.000	0.0	0.000
<b>Result quality</b> Good			

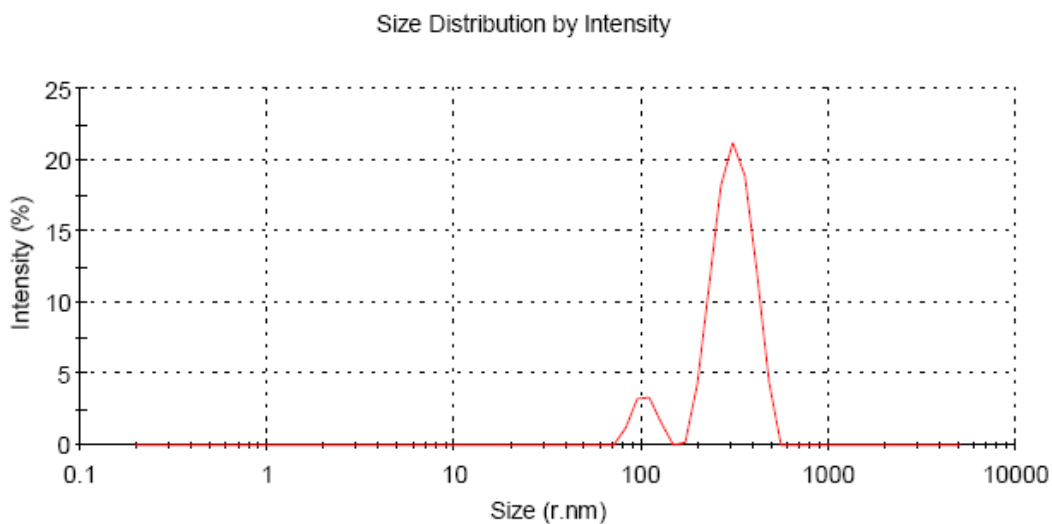


Figure S5. Dynamic light scattering (DLS) of SOA@CoO.

	Diam. (nm)	% Intensity	Width (nm)
<b>Z-Average (r.nm):</b> 238.4	<b>Peak 1:</b> 231.9	96.8	86.89
<b>Pdl:</b> 0.313	<b>Peak 2:</b> 2665	3.2	186.4
<b>Intercept:</b> 0.956	<b>Peak 3:</b> 0.000	0.0	0.000
<b>Result quality</b> Good			

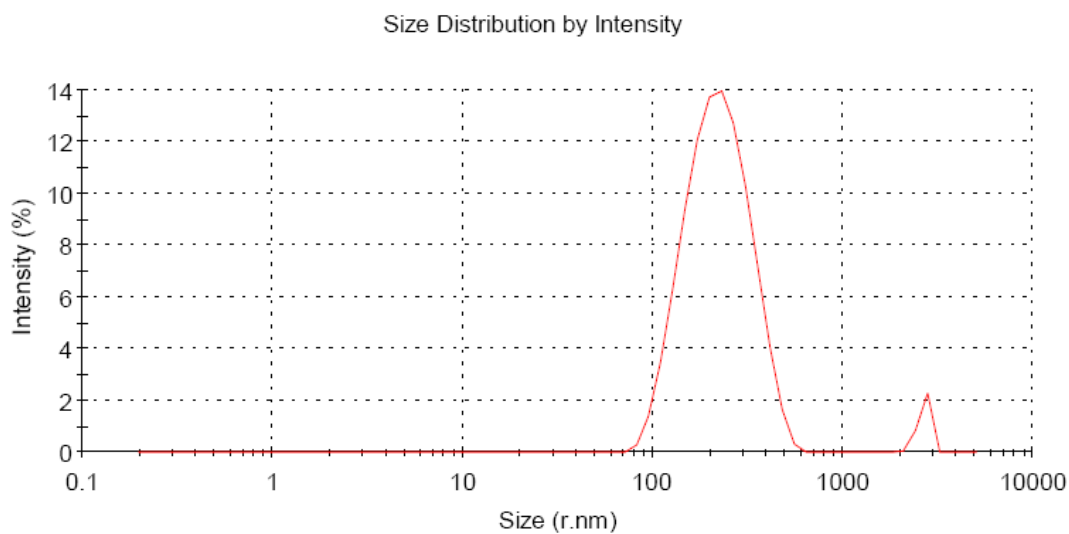


Figure S6. Dynamic light scattering (DLS) of POA@CoO.

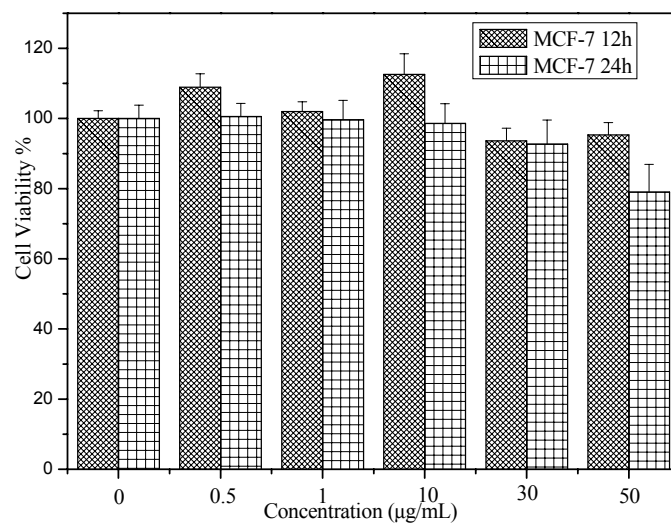


Figure S7. Cell viability values (%) of MCF-7 cells estimated by MTT assay incubated with 0.5-50 µg/mL POA@CoO at 37 °C for 12 h and 24 h, respectively.