

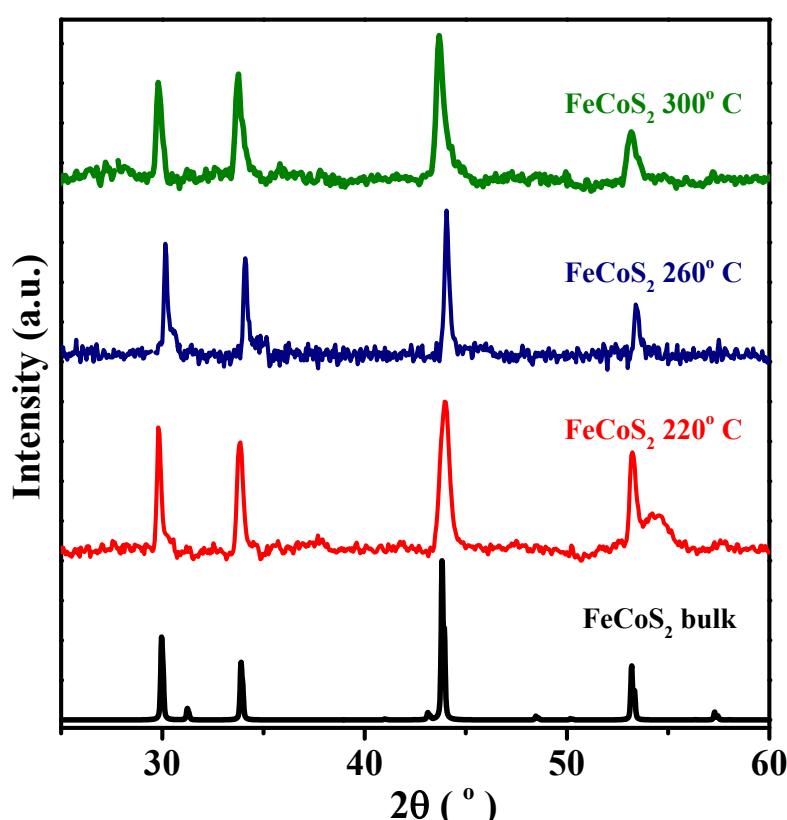
**Electronic Supplementary Information**

**Ligand assisted digestion and formation of monodisperse FeCoS<sub>2</sub> nanocrystals**

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**Table S1:** ICP analysis of FeCoS<sub>2</sub> sample at 300°C

Fe/(Fe+Co)	Co/(Fe+Co)
(%)	(%)
FeCoS <sub>2</sub>	73.7      26.2



**Fig. S1.** XRD pattern of FeCoS<sub>2</sub> samples synthesized at different temperatures.

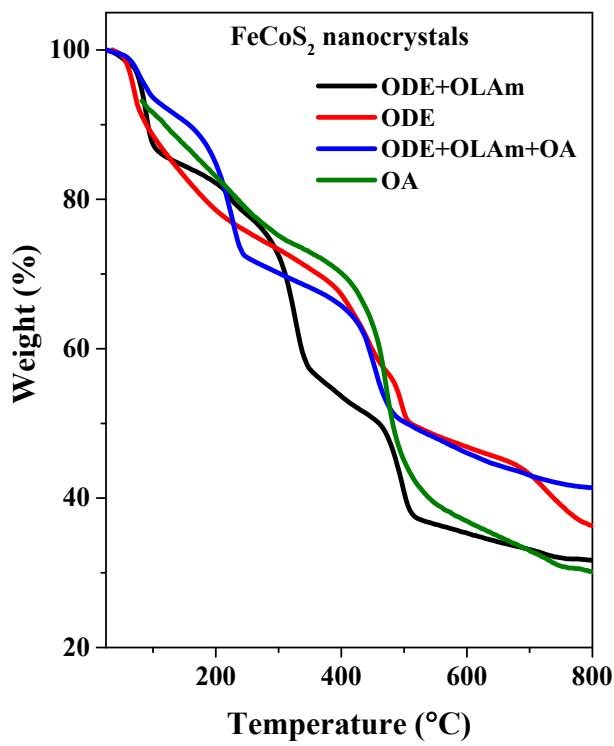


Fig. S2. TGA pattern for different FeCoS<sub>2</sub> nanocrystals.

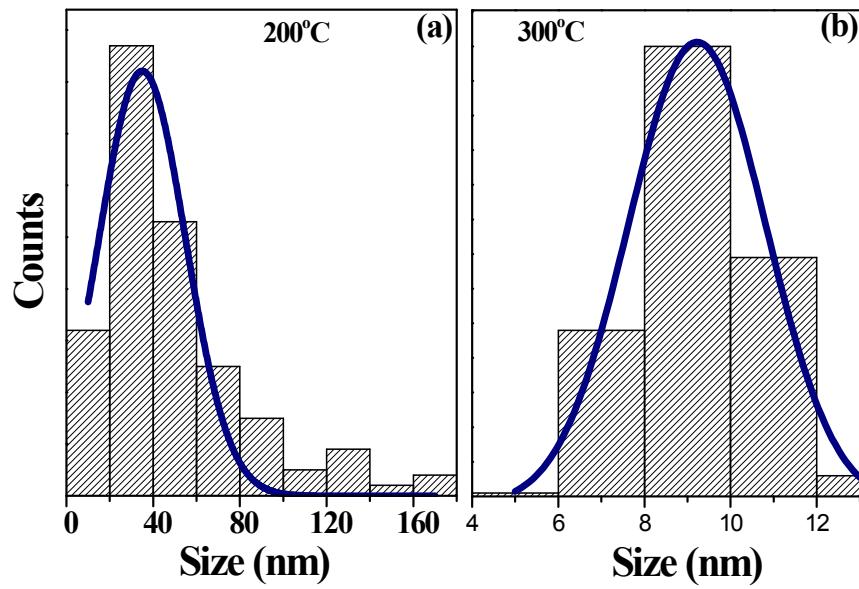


Fig. S3. Size distribution histogram of the nanocrystals at a) 200°C and b) 300°C

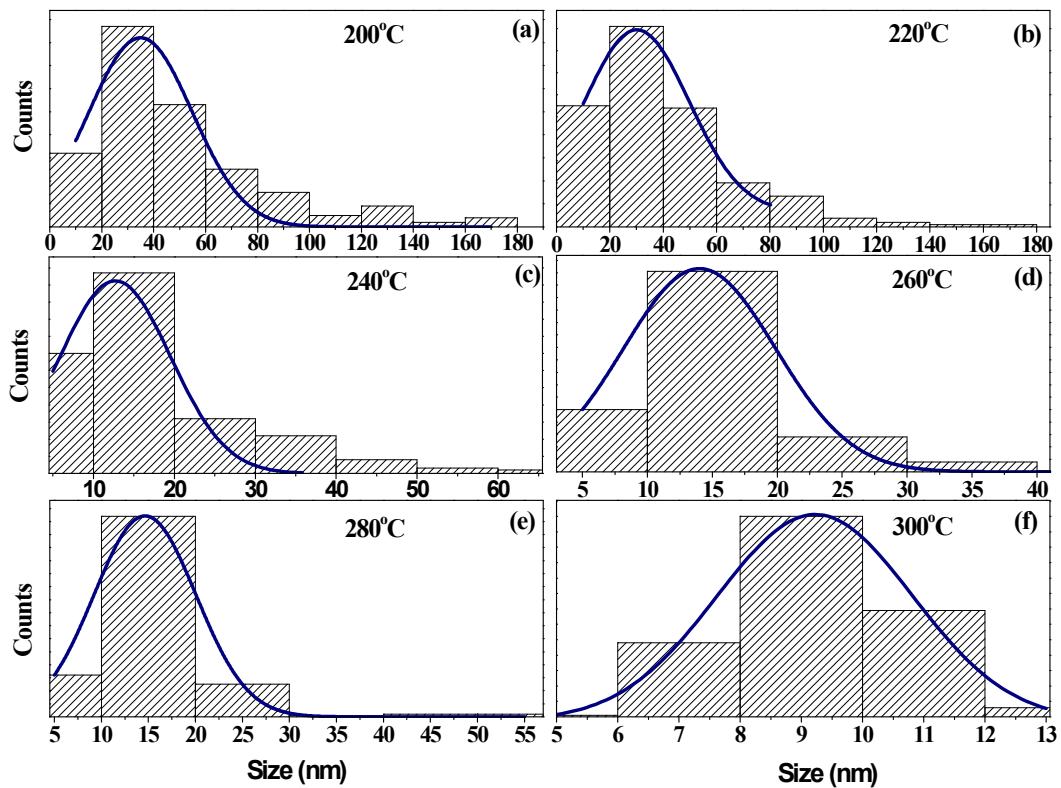


Fig. S4. Size distribution histogram of as-synthesized nanocrystals at different temperatures  
 (a) 200°C (b) 220°C (c) 240°C (d) 260°C (e) 280°C and (f) 300°C.

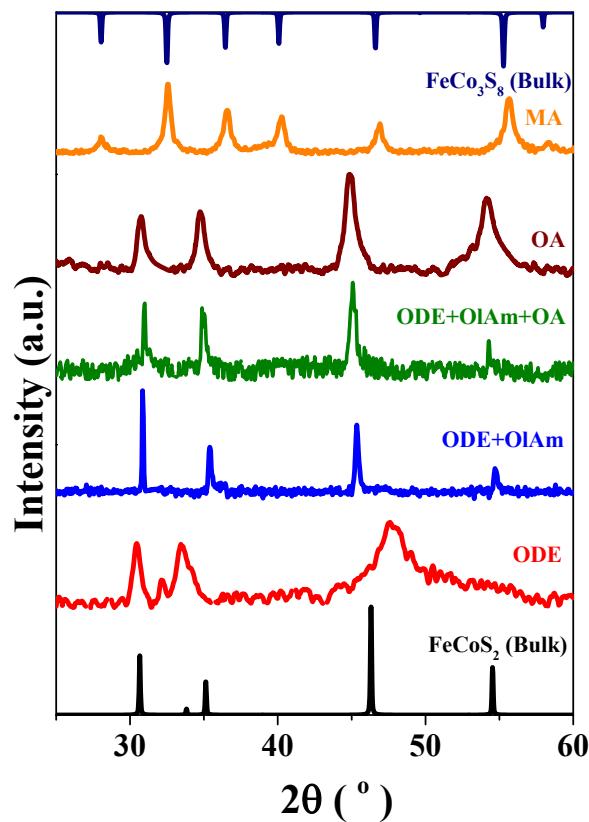


Fig.S5. XRD pattern of nanocrystals synthesized using different ligands.

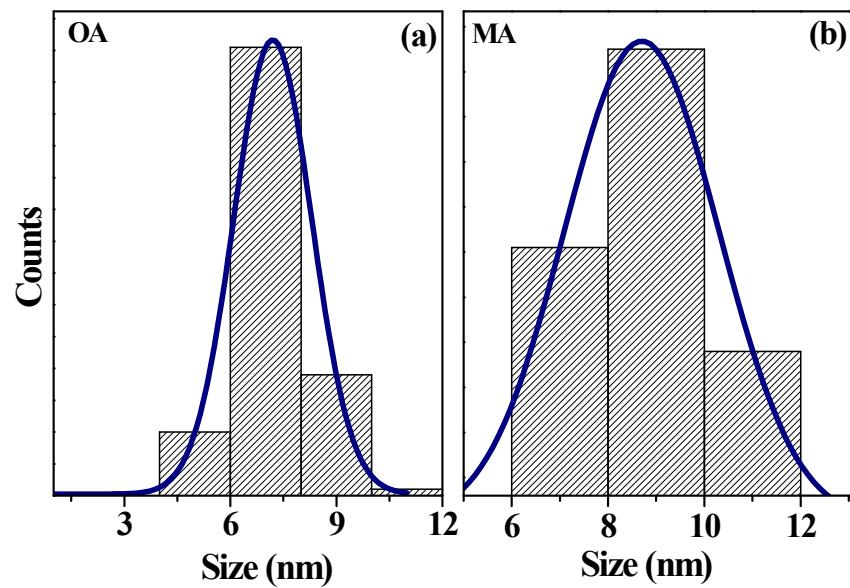


Fig. S6. Size distribution histogram of nanocrystals formed using (a) OA (b) MA.

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