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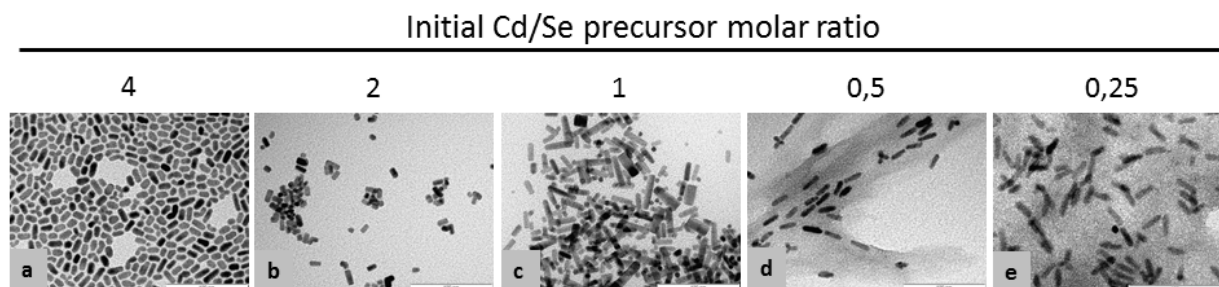
Supporting Information

**Cl-capped CdSe nanocrystals via in-situ generation of chloride anions**

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Cd/Se precursors molar ratio	4	2	1	0.5	0.25
DCE · 10 <sup>-4</sup> (mol)	2.5	0.75	0.38	0.38	0.38
CdO · 10 <sup>-4</sup> (mol)	7.8	3.9	2	2	2
ODPA · 10 <sup>-4</sup> (mol)	24	12	6	6	6
Se@TOP · 10 <sup>-4</sup> (1M) (mol)	2	2	2	4.3	8
DCE/CdO (mol)	0.32	0.19	0.19	0.19	0.19
DCE/Se@TOP (mol)	1.25	0.38	0.19	0.09	0.05
DCE/TOP (mol)	0.62	0.19	0.12	0.06	0.03

**Table S1** Molar amounts of precursors used to prepare CdSe NCs from different Cd/Se precursor molar ratios. DCE/CdO and DCE/Se@TOP and DCE/TOP molar ratios are also included.

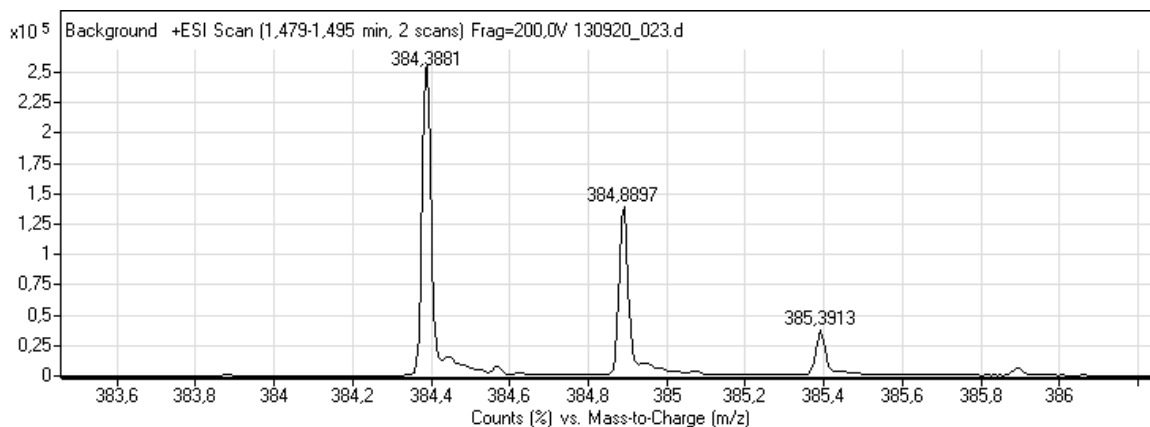


**Figure S2** Control experiments: TEM images the CdSe NCs obtained from Cd/Se precursor molar ratios of 4, 2, 1, 0.5 and 0.25 in the absence of DCE.

**Chlorine incorporation in two-steps.** Control experiments were carried out by mixing the starting CdSe rods with (a) TOPO, (b) TOP/TOPO, (c) Se@TOP/TOPO and with (e) DCE/TOPO. In all the cases, the volume of TOP or Se@TOP 1M injected was 0.4 mL. All reactions have been done under nitrogen.

	pyramids			rods	
Initial Cd/Se	0.25	0.5	1	2	4
Normalized areas from XPS peaks					
Se/Cd	0.38	0.38	0.40	0.31	0.41
P/Cd	2.23	2.26	2.32	2.35	2.47
Cl/Cd	0.22	0.16	0.17	0.07	0.08
Cl/P	0.10	0.07	0.07	0.03	0.03

**Table S3** Se/Cd, P/Cd, Cl/Cd and Cl/P relative XPS peak areas of CdSe samples synthesized from different Cd/Se precursor molar ratios. The experimental error associated to the relative XPS peak areas is 10%.



**Figure S3** MS spectrum of the product DCE+TOP at 265°C.