Electronic Supplementary Material (ESI) for CrystEngComm.

Morphology control of the NaGdF4 :Yb, Tm@NaGdF4 Core-shell Nanostructure by tailoring the Ratio of Core to Shell

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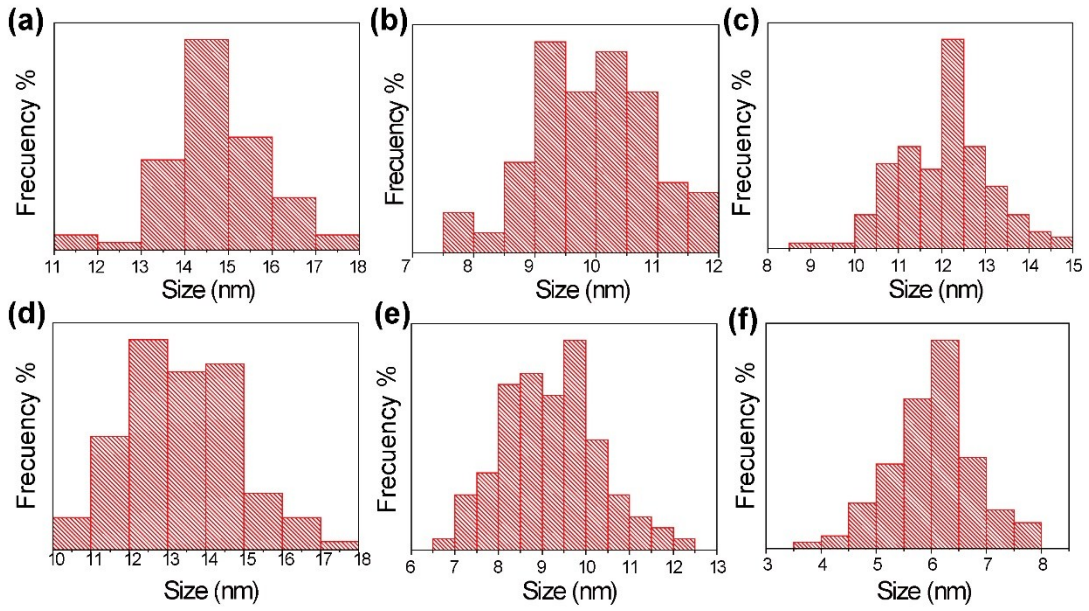

Figure S1. The particle size distribution of $NaGdF_4$ core with different Na and RE precursor: (a) UC-1#, (b) UC-2#, (c) UC-3#, (d) UC-4#, (e) UC-5# and (f) UC-6#.

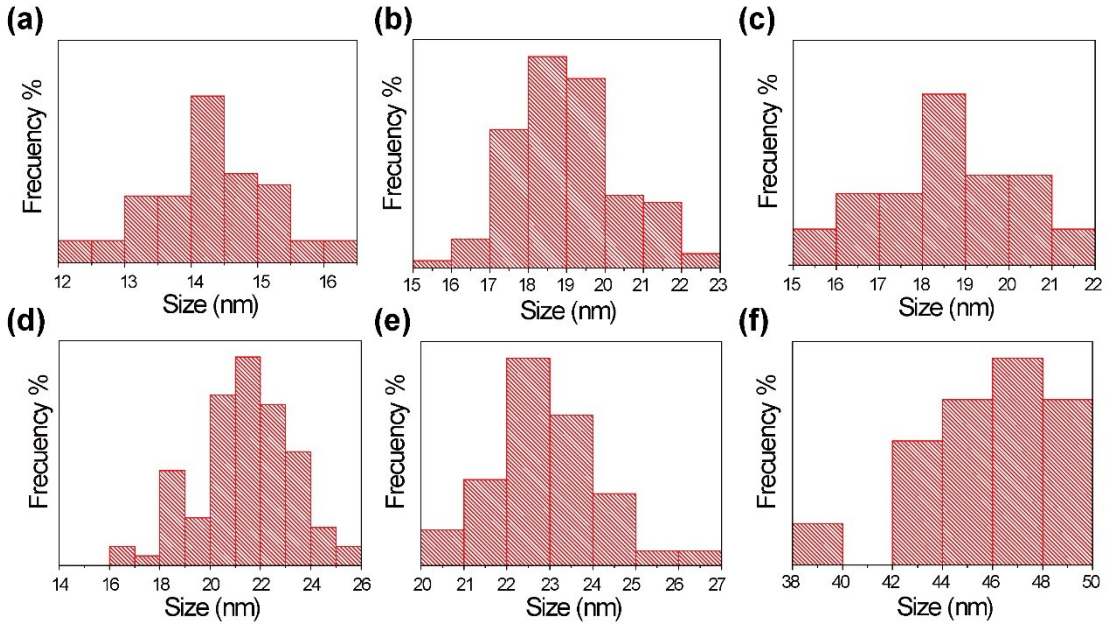

Figure S2. The particle size distribution of $NaGdF_4$@$NaGdF_4$:Yb/Tm core with different Na and RE precursor: (a) CSUC-1#, (b) CSUC-2#, (c) CSUC-3#, (d) CSUC-4#, (e) CSUC-5# and (f) CSUC-6#.

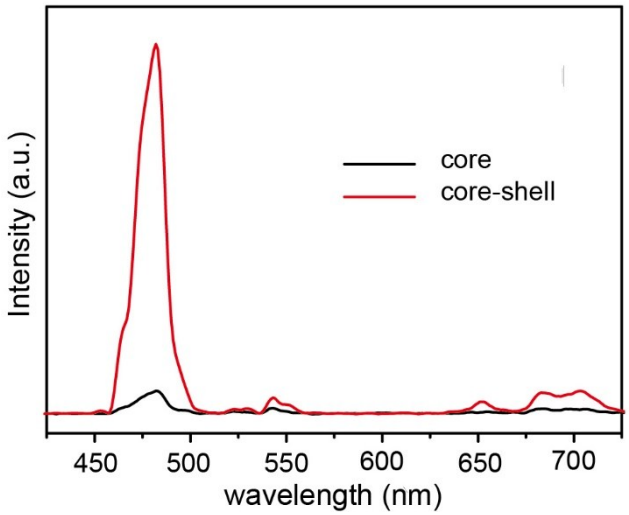

Figure S3. The emission spectrum of core-shell UCNPs (CSUC-6#)with its core(UC-6#).