

Supporting Information

Highly uniform $\text{Y}_3\text{Al}_2\text{Ga}_3\text{O}_{12}$ -based nanophosphors for persistent luminescence bioimaging in the visible and NIR regions

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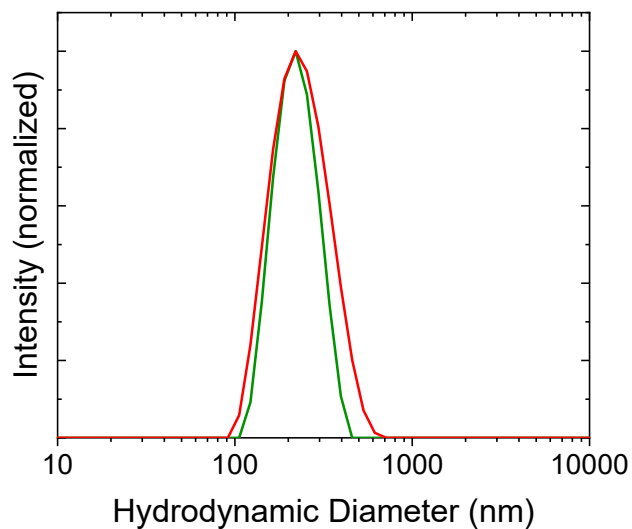


Figure S1. The hydrodynamic diameter of the AP-NPs (green curve) and C-NPs (red curve) in water at pH=10.5. D_h value is 228 nm for both curves.

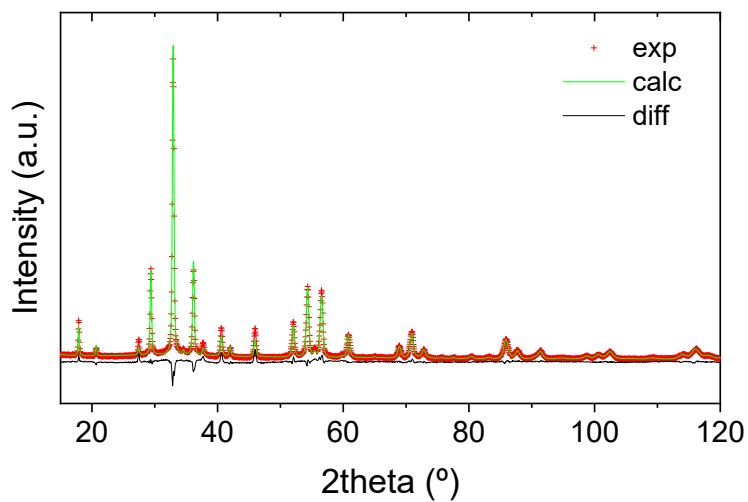


Figure S2. Experimental (red crosses) and theoretical (green line) XRD patterns of the AP-NPs. The difference curve is shown in black.

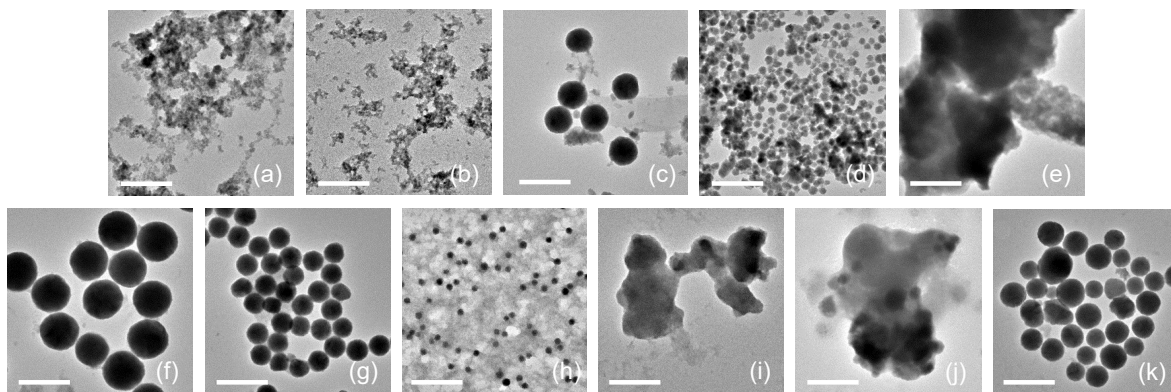


Figure S3. TEM micrographs showing the results of the synthesis of $\text{Y}_3\text{Al}_2\text{Ga}_3\text{O}_{12}:\text{Ce}^{3+}$, Nd^{3+} , Cr^{3+} after varying different conditions regarding the suitable synthesis: (a) using gallium isopropoxide; (b) using gallium nitrate; (c) using aluminum acetylacetonate, (d) using BG/EG; (e) using BG/Gly; (f) using pure BG; (g) using BG/DEG volumetric ratio = 80/20; (h) synthesized for 3 days; (i) synthesized at 170°C ; (j) using double and a half (k) of concentrations than the used for the synthesis of nanoparticles showed in Fig. 1. Inset, the scale bar corresponding to 500 nm.