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SUPPLEMENATARY INFORMATION

Persistent luminescence of Transparent $ZnGa_2O_4:Cr^{3+}$ Thin Films from Colloidal Nanoparticles of tunable Size

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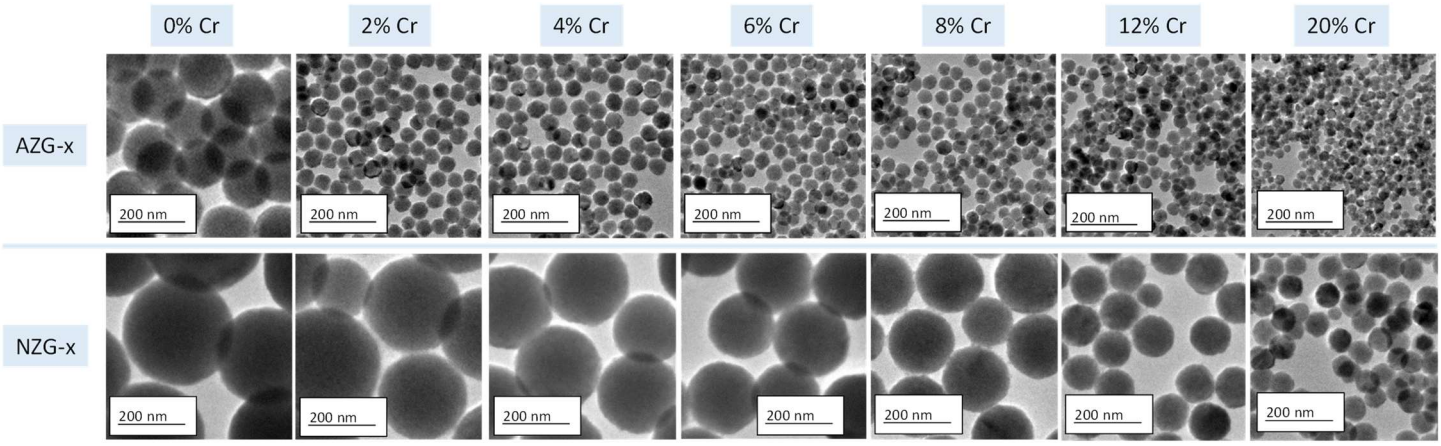

Figure S1: AZG-x: TEM micrographs of the nanoparticles obtained after aging at 200ºC for 30 minutes in a microwaves oven an aqueous solution containing a) $Zn(OAc)_2$ (15 mL, 0.04 M), $Ga(NO_3)_3$ (15 mL, 0.08M), trisodium citrate (30 mL, 0.1M) and the indicated amounts of $Cr(NO_3)_3$ at pH=9. NZG-x: Idem as the AZG-x series but using $Zn(NO_3)_2$ as Zn precursor

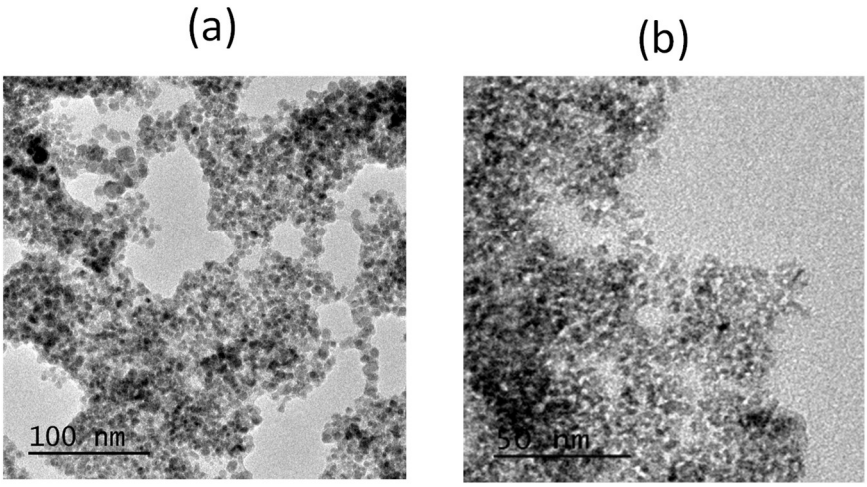

Figure S2: TEM micrographs of the precipitates obtained after aging at 200ºC for 30 minutes in a microwaves oven an aqueous solution containing **a)** $Zn(OAc)_2$ (30 mL, 0.04 M) and $Ga(NO_3)_3$ (30 mL, 0.08M) at pH= 9 in the absence of trisodium citrate and **b)** $Zn(OAc)_2$ (15 mL, 0.04 M) and $Ga(NO_3)_3$ (15 mL, 0.08M) and trisodium citrate (30 mL, 0.04M) at pH= 9.

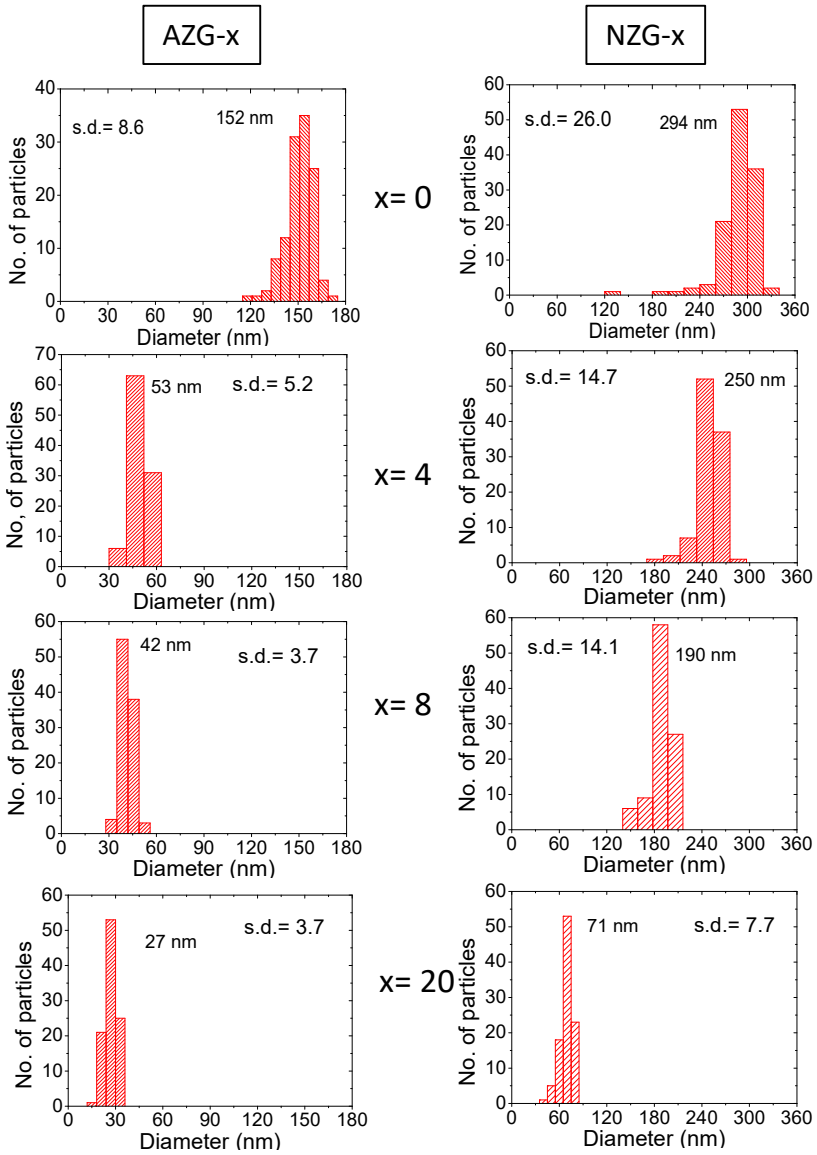

Figure S3: Size distribution histograms obtained from the TEM micrographs shown in Figures 2a and 2b of the manuscript. Mean Particle size and standard deviation (s.d.) are also shown. Mind the different x-axis scales for the AZG-x and NZG-x histograms.

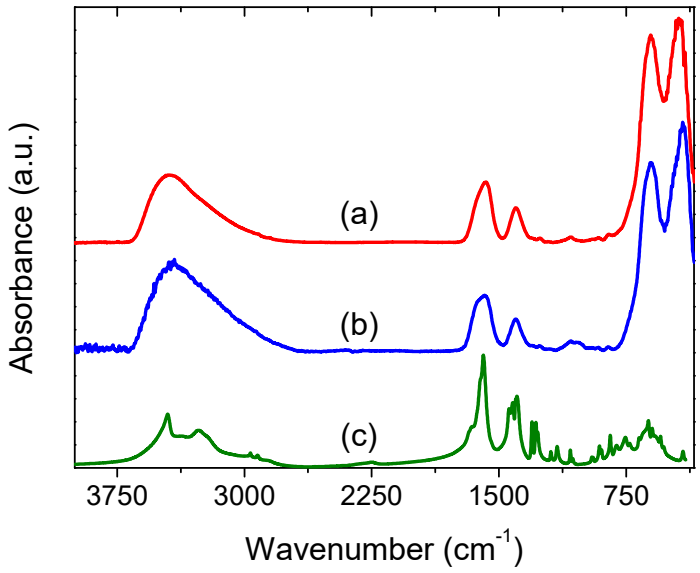

Figure S4: FTIR spectra of NZG-4 (a) and AZG-4 (b) particles. The bottom plot corresponds to the FTIR spectrum of trisodium citrate.