Support Information

Composite Nanostructures for the Production of White Light

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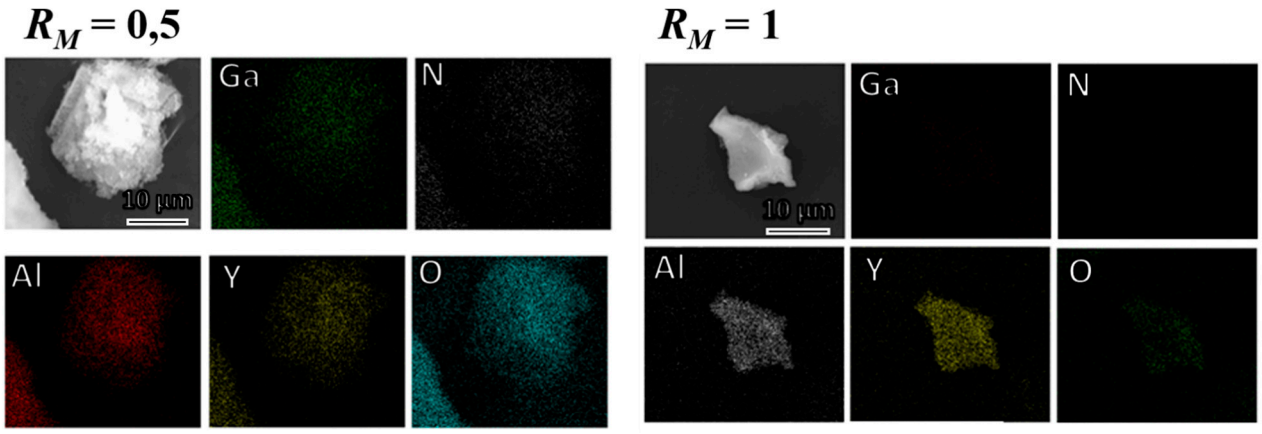

Figure S1. Elemental mapping of sample R_{M2} = 0.5 and 1.

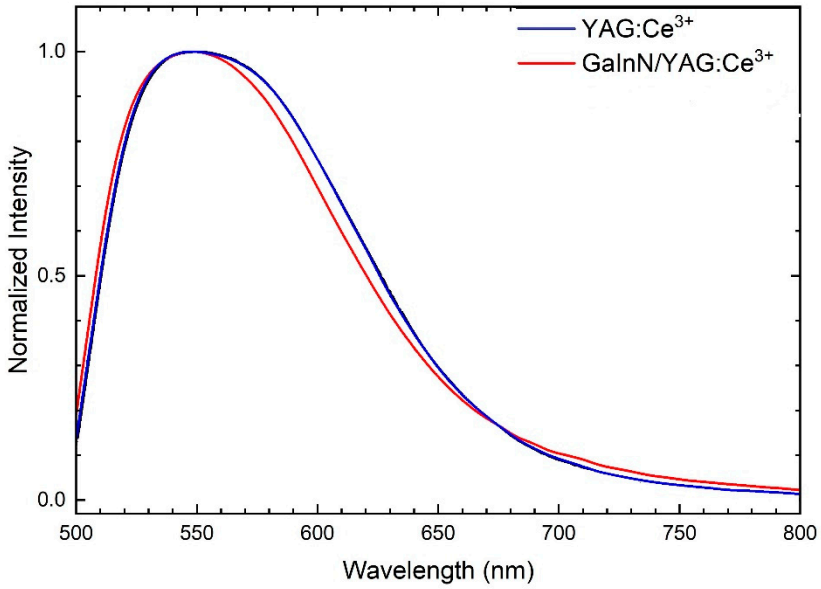

Figure S2. Excitation (PLE) and photoemission spectra (PE) of YAG:Ce / $Ga_{0.9}In_{0.1}N$ (R_{M1}= 9). Spectra of YAG:Ce prepared in the same conditions is reported as comparison.

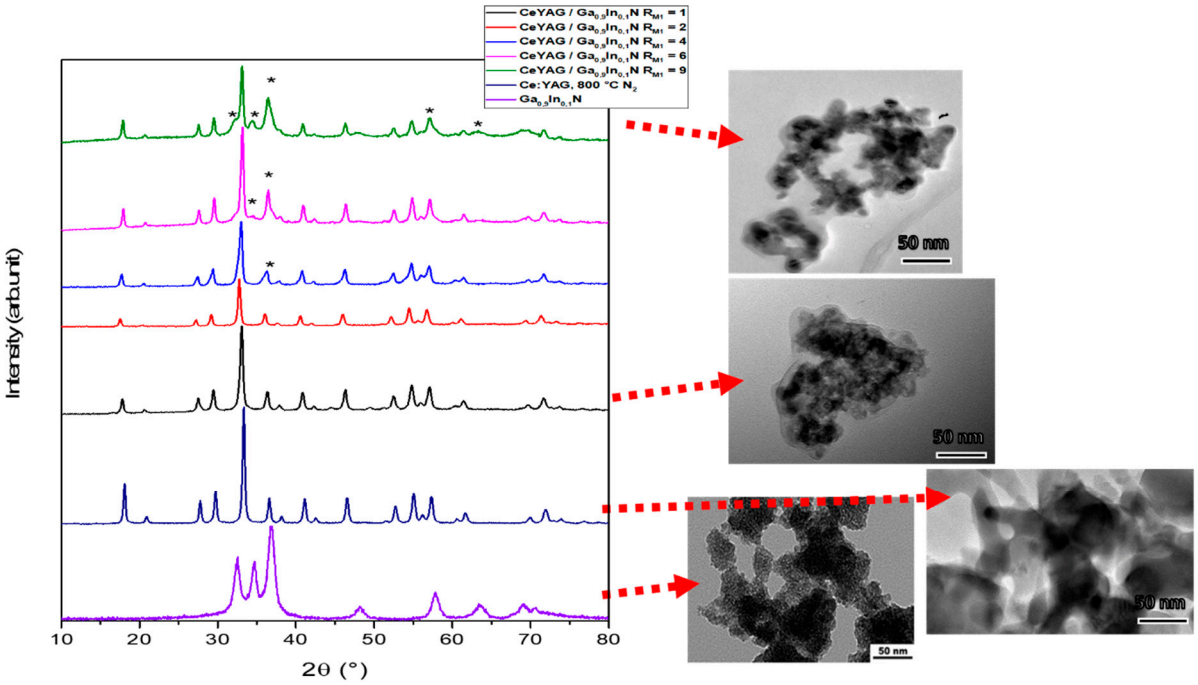

Figure S3. XRD patterns of the YAG:Ce/$Ga_{0.9}In_{0.1}N$ samples belonging to the Composite 1 series varying R_{M1} and of YAG:Ce and $Ga_{0.9}In_{0.1}N$ reference samples. The symbol * indicates the GaN phase. (ICDD: YAG 00-033-0040, GaN 01-076-0703).

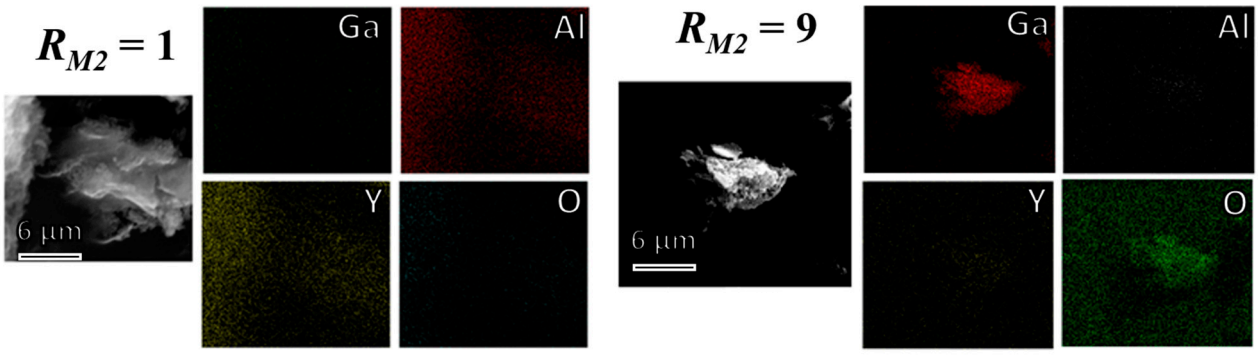

Figure S4. Elemental mapping of sample $R_{M2} = 9$.

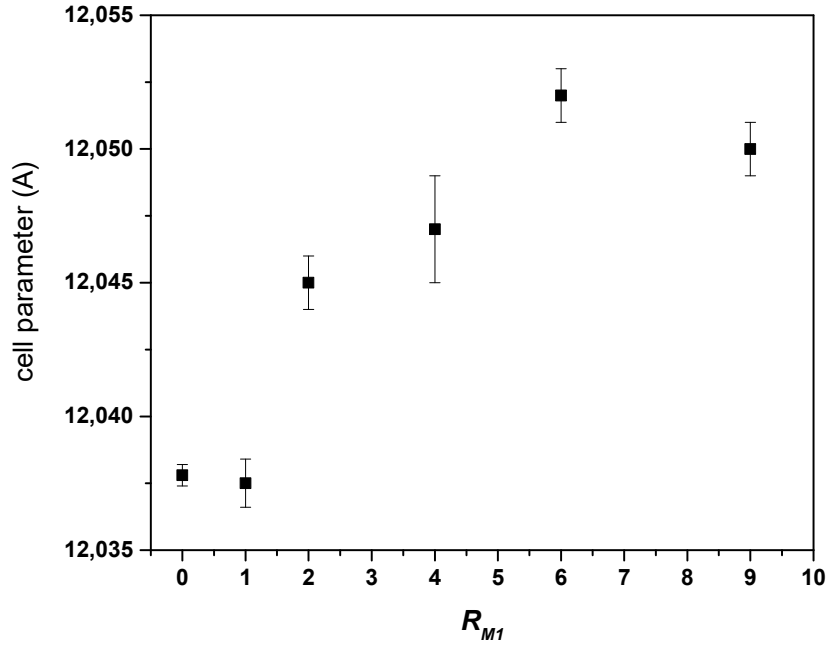

Figure S5. Cell parameter *a* of garnet phase in the YAG:Ce/ $Ga_{0.9}In_{0.1}N$ series, varying R_{M1}. For R_{M1} = 0 indicates *a* of the reference YAG:Ce.

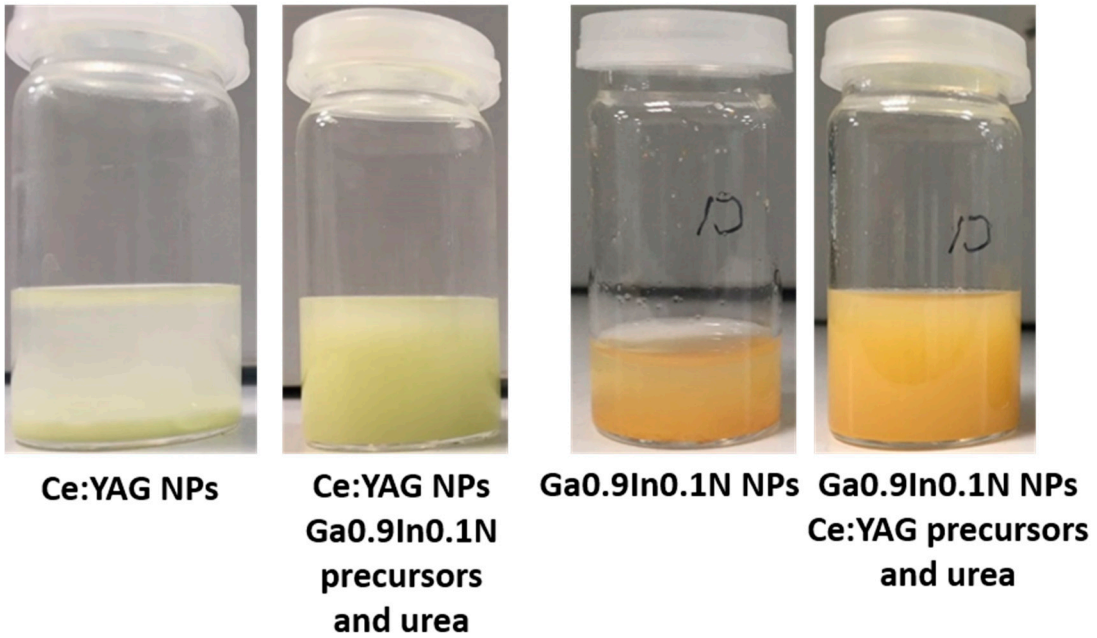

Figure S6. Ethanolic dispersions of YAG:Ce NPs; YAG:Ce NPs + $Ga_{0.9}In_{0.1}N$ precursors and urea (composite 1), and of $Ga_{0.9}In_{0.1}N$ NPs and $Ga_{0.9}In_{0.1}N$ NPs + YAG:Ce precursors and urea (composite 2).