

Supplementary information:

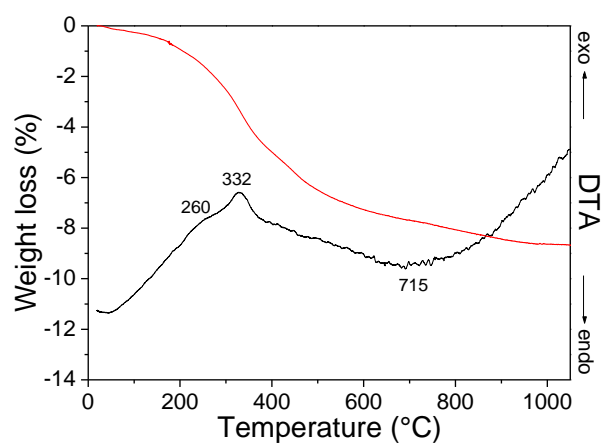


Figure S1 : TG-DTA profiles of YAG:Ce³⁺ NPs synthesized by 1 h heating at 300°C. TGA experience is performed under air with a heating rate of 5 °C / min.

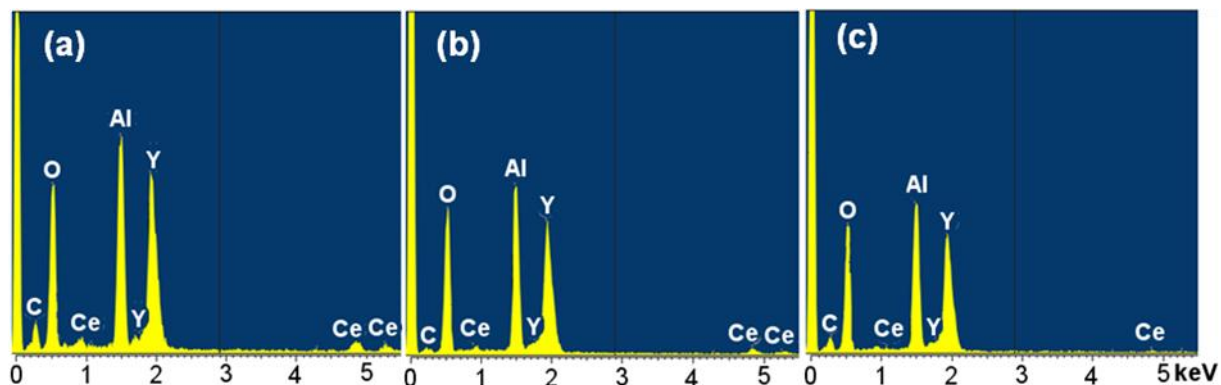


Figure S2 : EDX spectra of YAG:Ce³⁺ NPs at different doping concentrations (a) 6%, (b) 3% and (c) 1 mol % of Ce³⁺. Concentrations are given with $\pm 20\%$ error.

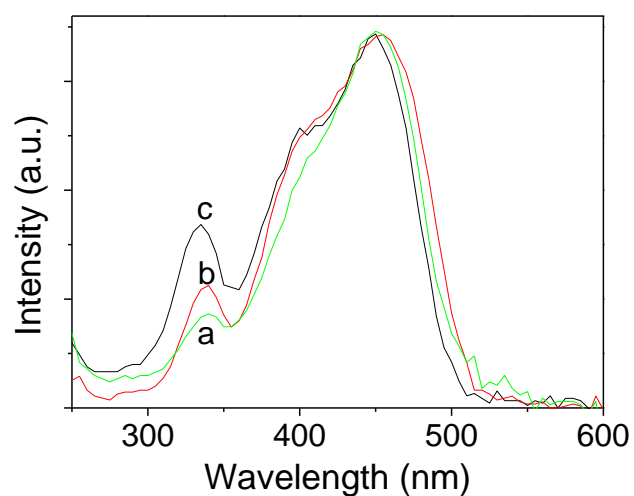


Figure S3 : Room temperature excitation spectra of YAG:Ce³⁺ NPs synthesized by heating at 300°C for (a) 5 min, (b) 1 h and (c) 12 h.