

Electronic Supplementary Information

Self-thermal management YAG:Ce-Al₂O₃ color converters enabling high-brightness laser-driven solid state lighting in a transmissive configuration

Jinchun Wang,^a Xueyuan Tang,^{a, b*} Peng Zheng,^a Shuxing Li,^{a*} Tianliang Zhou,^a Rong-Jun Xie^{a*}

a College of Materials, Xiamen University, Simingnan-Road 422, Xiamen 361005, P. R. China. *E-mail: rjxie@xmu.edu.cn; lishuxing@xmu.edu.cn.

b Fujian Key Laboratory of Advanced Materials (Xiamen University), Simingnan-Road 422, Xiamen 361005, P. R. China. *E-mail: xytang@xmu.edu.cn.

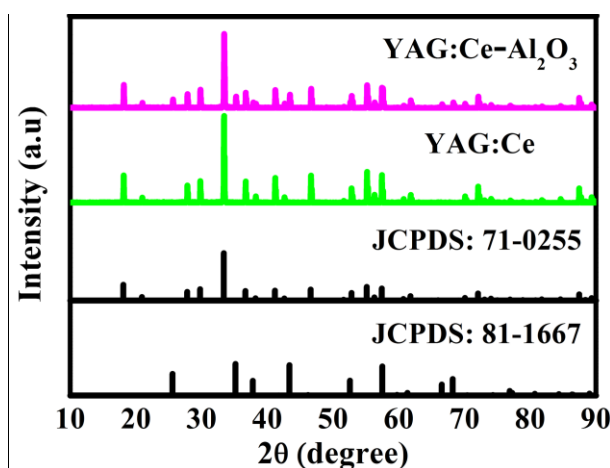


Figure S1. XRD patterns of YAG:Ce and YAG:Ce-24wt%Al₂O₃ ceramics.

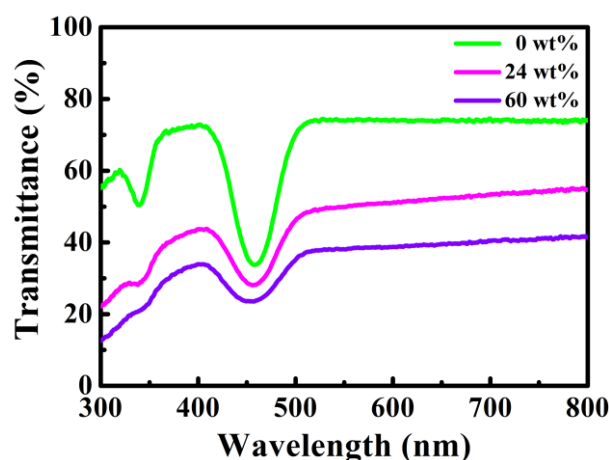


Figure S2. The transmittance spectra of YAG:Ce-Al₂O₃ ceramics with different Al₂O₃ contents.

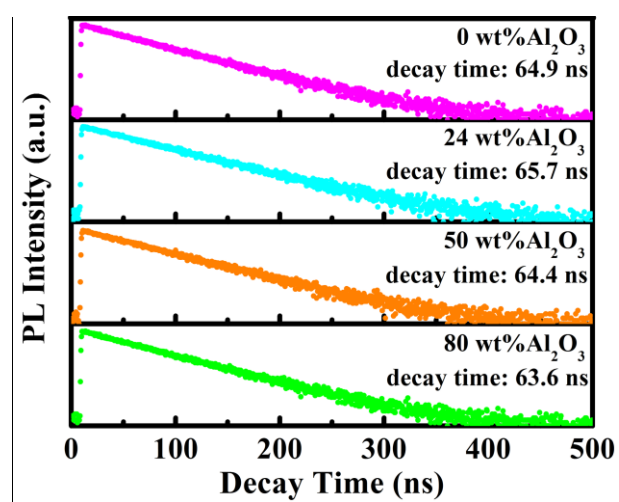


Figure S3. The decay curves of $\text{YAG:Ce-Al}_2\text{O}_3$ ceramics collected at 538 nm wavelength.