Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

High-power laser-driven Phosphor-in-Glass for excellently high conversion efficiency white light generation for special illumination or display backlighting

Jinbo Yu, [a] Shuaichen Si, [a] Yong Liu, [a] Xuejie Zhang, [a] Yujin Cho, [b] Zifeng Tian, [c] Rong Jun Xie, [b] Hong-Wu Zhang, [d] Yurong Li, [e] Jing Wang, [a]*

[a.] *Ministry of Education Key Laboratory of Bioinorganic and Synthetic Chemistry, State Key Laboratory of Optoelectronic Materials and Technologies, School of Chemistry, School of Materials Science and Engineering, Sun Yat-Sen University, Guangzhou, 510275, P. R. China.*

[b.] *Sialon Group, National Institute for Materials Science, 1-1 Namiki, Tsukuba 305-0044, Japan*

[c.] *Appotronics Corporation Limited, Shenzhen 518057, China Key Lab of Urban Pollutant Conversion, Institute of Urban Environment, Chinese Academy of Sciences, Xiamen, Fujian 361021, China*

[d.] *Key Lab of Urban Pollutant Conversion, Institute of Urban Environment, Chinese Academy of Sciences, Xiamen, Fujian 361021, China*

[e.] *NationStar Optoelectronics Corporation Limited, Foshan 528000, China*

**E-mail: ceswj@mail.sysu.edu.cn*

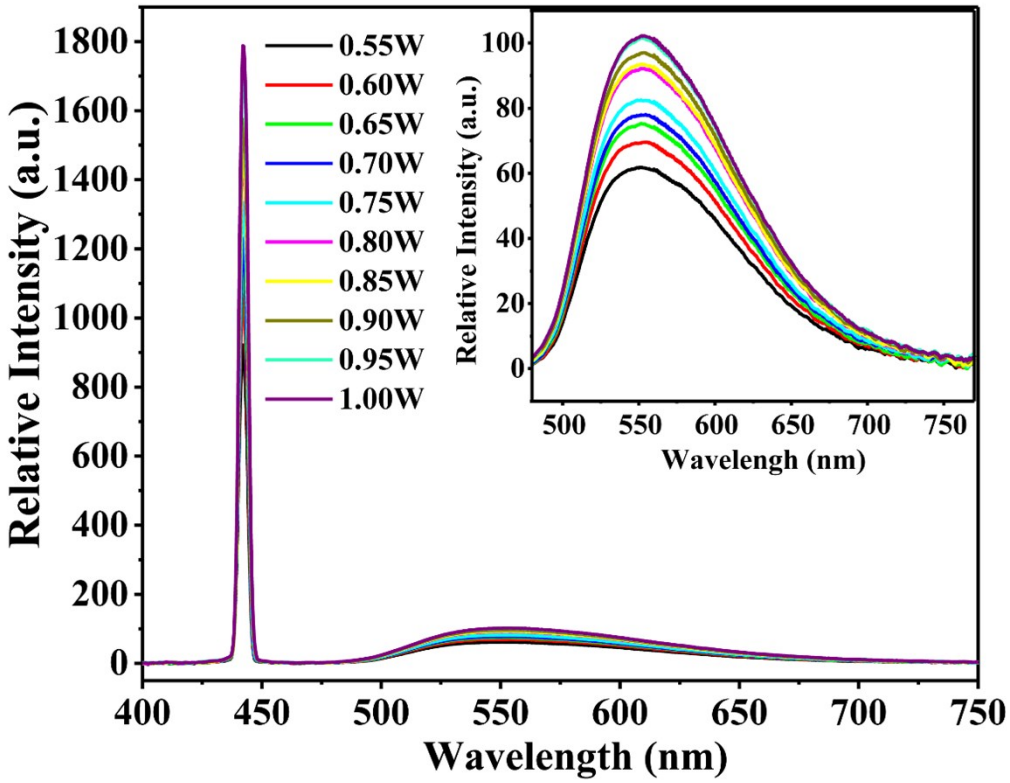

Figure S1 The luminescent intensity of 10 wt.%-YAG:Ce-PiG sample under being irradiated by LD at various laser powers over the same duration (60 s)

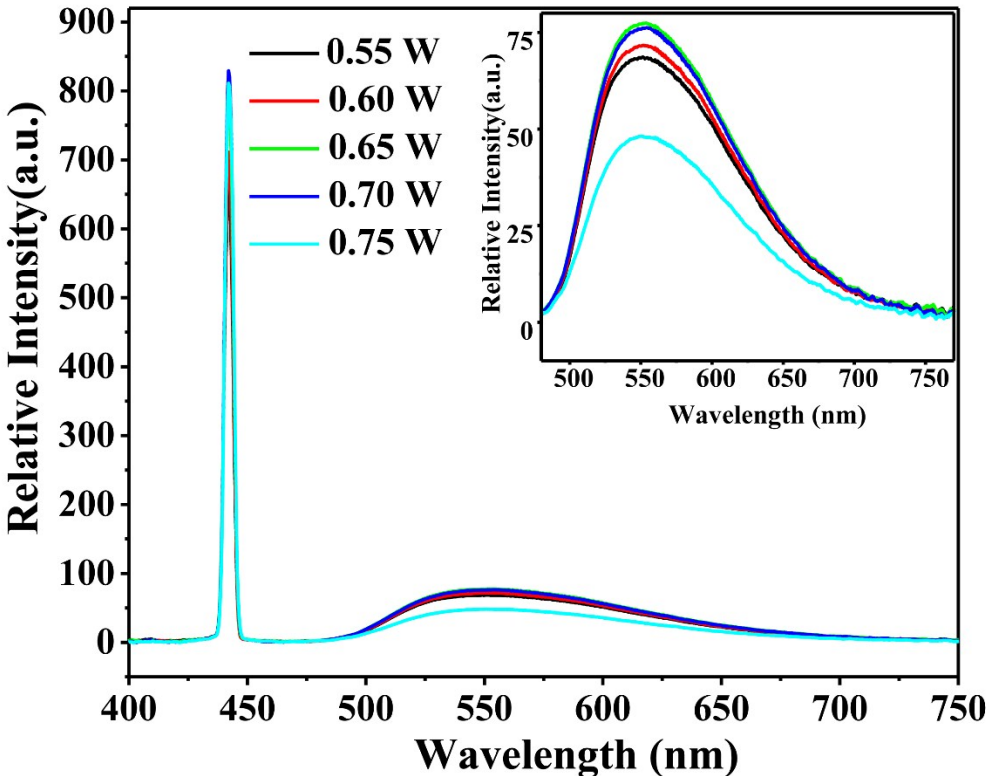

Figure S2 The luminescent intensity of 10 wt.%-YAG:Ce-PiS sample under being irradiated by LD at various laser powers over the same duration (60 s);

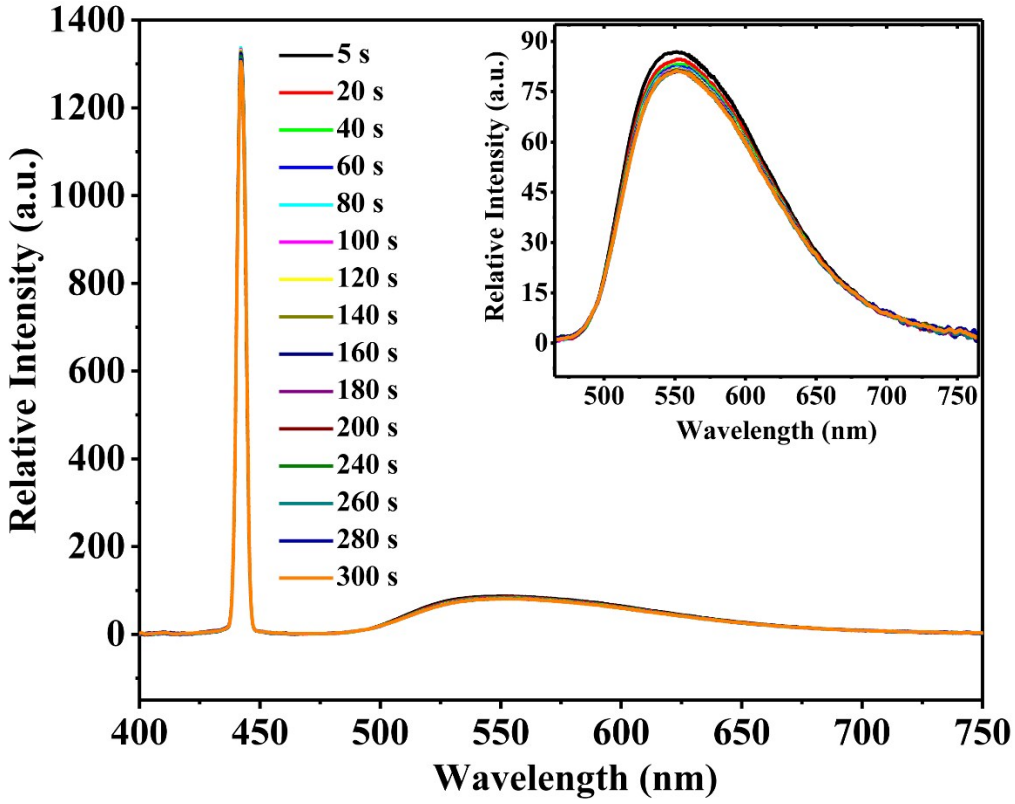

Figure S3 The luminescent intensity of 10 wt.%-YAG:Ce-PiG sample under being irradiated by LD at a constant laser power (0.75 W) over time.

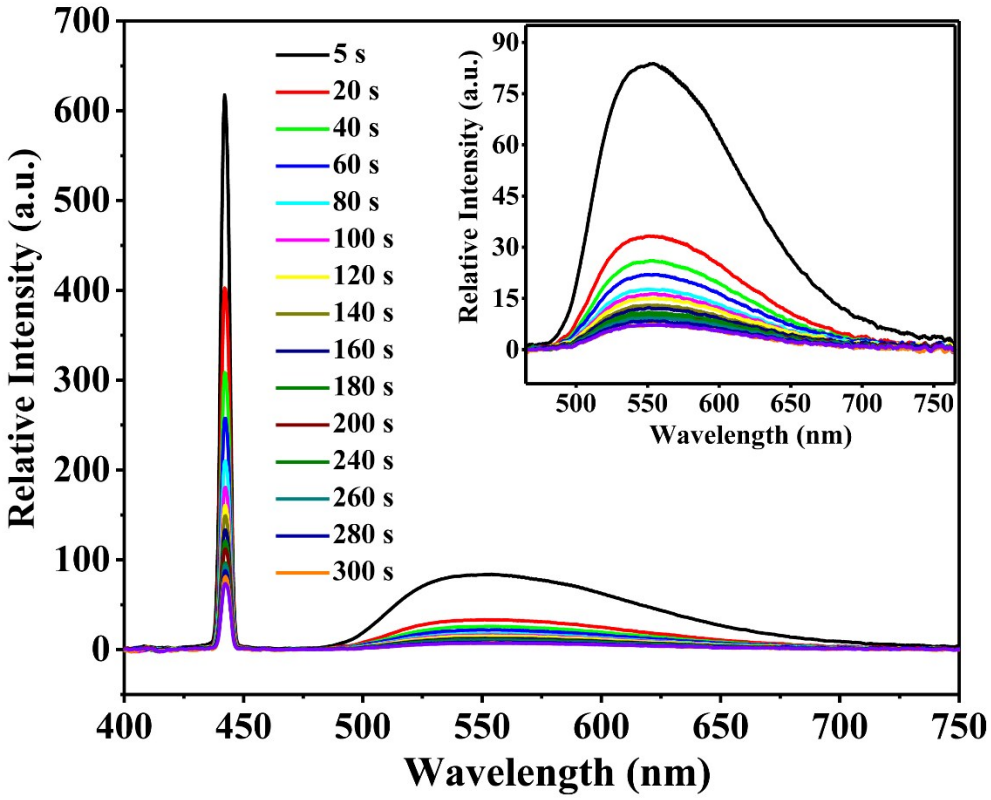

Figure S4 The luminescent intensity of 10 wt.%-YAG:Ce-PiS sample under being irradiated by LD at a constant laser power (0.75 W) over time.

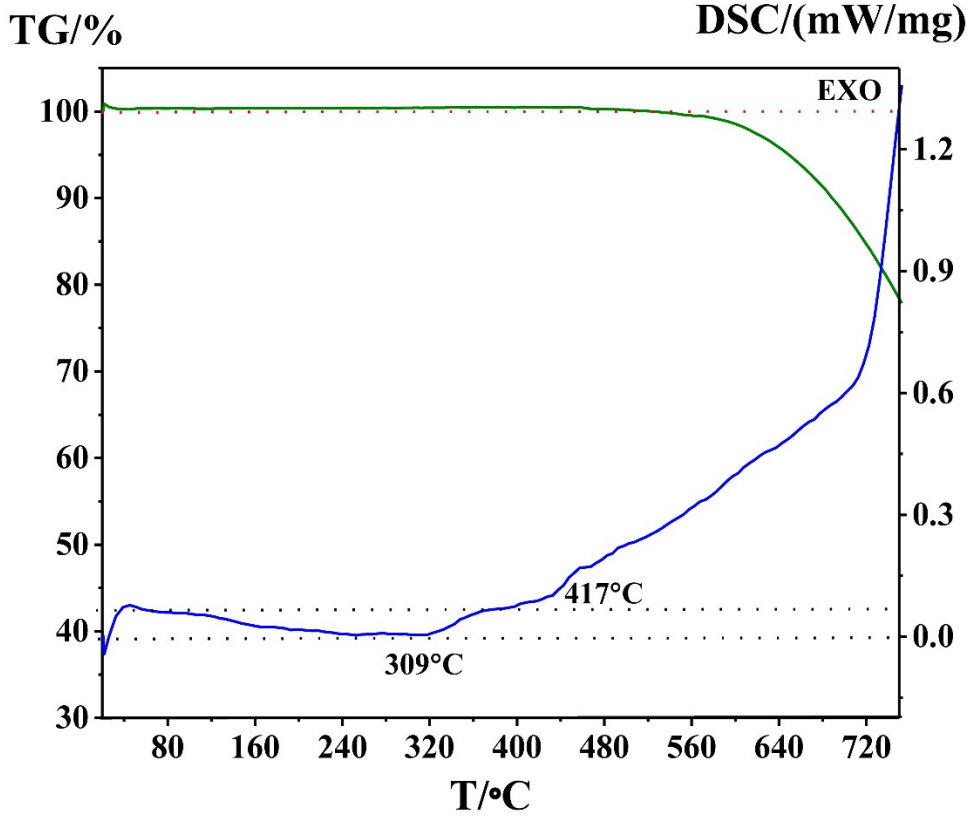

Figure S5 The TG-DSC curves of precursor glass.