

Supporting information for

Highly Robust Ce³⁺-Doped and Gd³⁺-Mixed KLaF₄ Nano-Glass Composite Scintillator

Bochao Sun ¹, Yuqing Xie ¹, Yunlong Zhao ², Xiang Li ³, Junfeng Chen ³, Yushou Song ², Lei

Zhao ⁴, Zhigang Li ^{2,5}, Hongtao Zhao ^{2,5}, Jing Ren ^{1,*}, and Jianzhong Zhang ^{1,*}

¹Key Laboratory of In-fiber Integrated Optics, Ministry Education of China, Harbin Engineering University, Harbin, 150001, China

²College of Nuclear Science and Technology, Harbin Engineering University, Harbin, 150001, China

³Key Laboratory of Transparent Opto-functional Inorganic Materials, Shanghai Institute of Ceramics, Chinese Academy of Sciences, Shanghai 201899, China

⁴State Key Laboratory of Particle Detection and Electronics, University of Science and Technology of China, Hefei 230026, China

⁵Heilongjiang Institute of Atomic Energy, Heilongjiang Academy of Sciences, Harbin, 150086, China

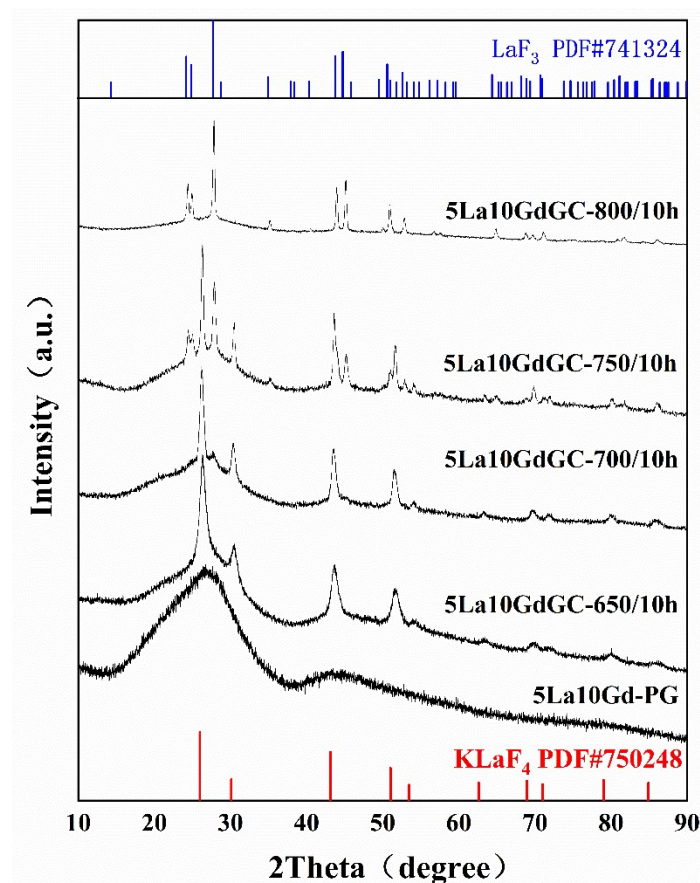


Fig. S1. XRD patterns of glasses thermally treated at different temperatures (650 - 800 °C) for a fixed duration of 10 hours. Also shown are for the standard KLaF₄ and LaF₃ crystals. A transformation of KLaF₄ to LaF₃ crystal phases can be observed starting at 700 °C.