Electronic Supplementary information

Synthesis and characterization of UV upconversion material Y_2SiO_5: Pr^{3+}, Li^+ /TiO_2 with enhanced the photocatalytic properties under a xenon lamp

Jianhong Wu, Yanmin Yang*, Zhiren Wei, Boning Han, Jun Wei

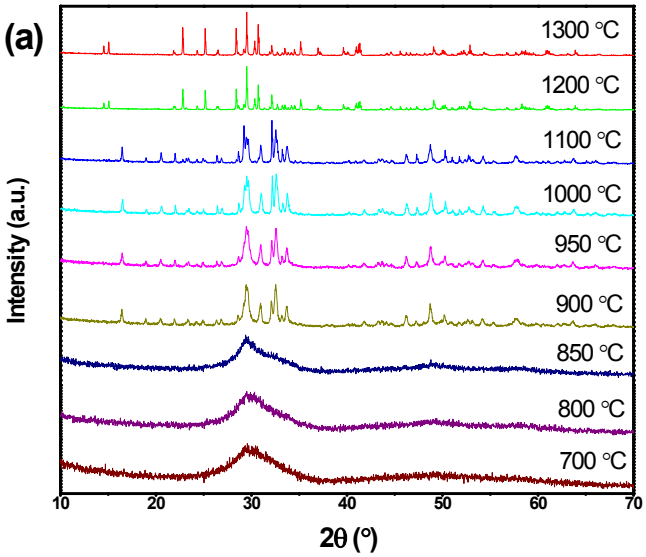
The Midwest universities comprehensive strength promotion project, Hebei Key Lab of Optic-electronic Information and Materials, College of Physics Science and Technology, Hebei University, Baoding 071002, China

**Corresponding author. Fax & Tel.: 86 159 3028 4830*

Email address: mihuyym@163.com

Figure S1. XRD patterns of Y_2SiO_5: Pr^{3+} upconversion materials (the Pr^{3+} concentration was 1.2%) calcined by different temperature (a) Un-doped with Li^+; (b) Co-doped with 9% Li^+.

Figure S2. XRD patterns of Y_2SiO_5: Pr^{3+} microcrystals doped with different Li^+ concentration (Y_2SiO_5: Pr^{3+} was calcined by 1100°C for 4h， Pr^{3+} concentration was 1.2%).



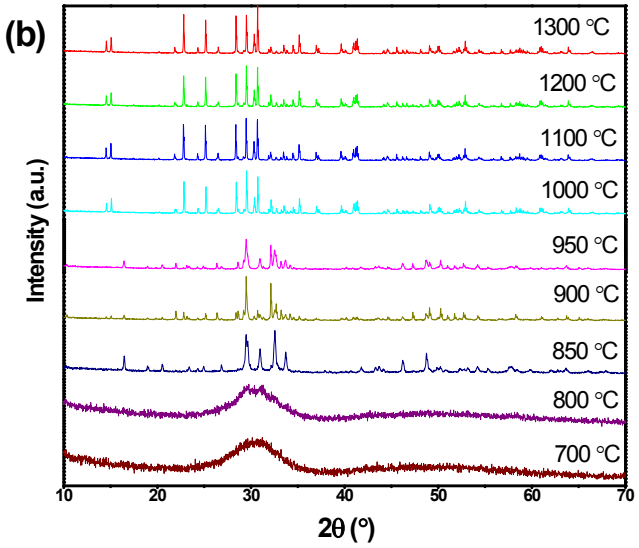


Figure S1. XRD patterns of Y_2SiO_5: Pr^{3+} upconversion materials (the Pr^{3+} concentration was 1.2%) calcined by different temperature (a) Un-doped with Li^+; (b) Co-doped with 9% Li^+.

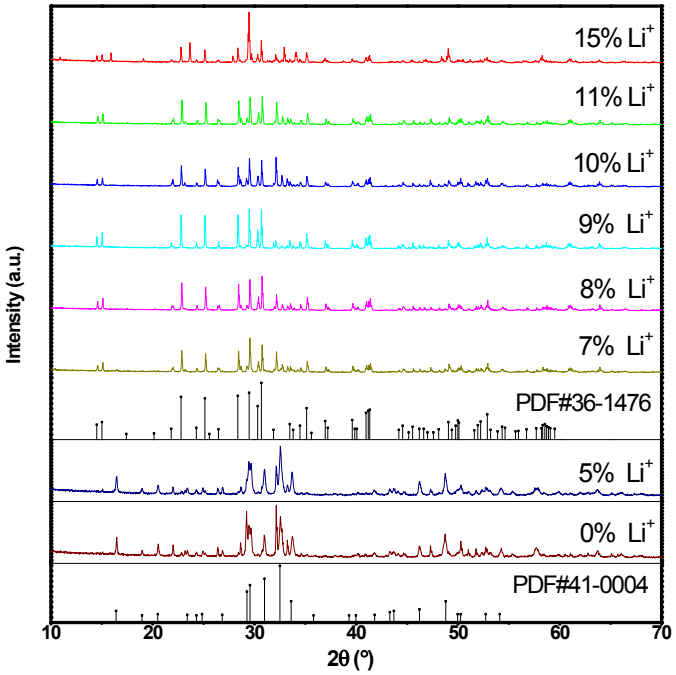


Figure S2. XRD patterns of Y_2SiO_5: Pr^{3+} microcrystals doped with different Li^+ concentration (Y_2SiO_5: Pr^{3+} was calcined by 1100°C for 4h， Pr^{3+} concentration was 1.2%).