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

Defect modulation and luminescence improvement of Mn^{4+}-activated $La(Mg,Nb)O_3$ phosphor with improved stability for plant cultivation

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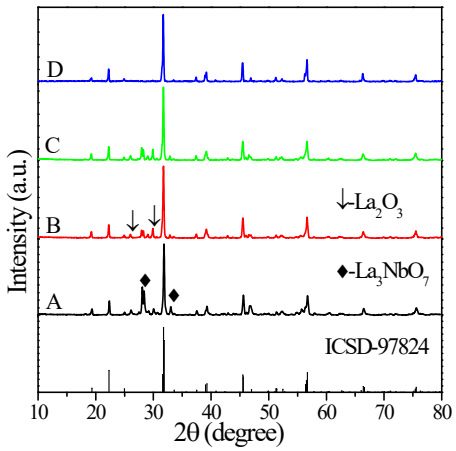

Fig. S1 XRD patterns of the LMN:Mn^{4+} samples prepared using different manganese sources A: No manganese; B: MnO_2; C: $MnCO_3$; D: $KMnO_4$

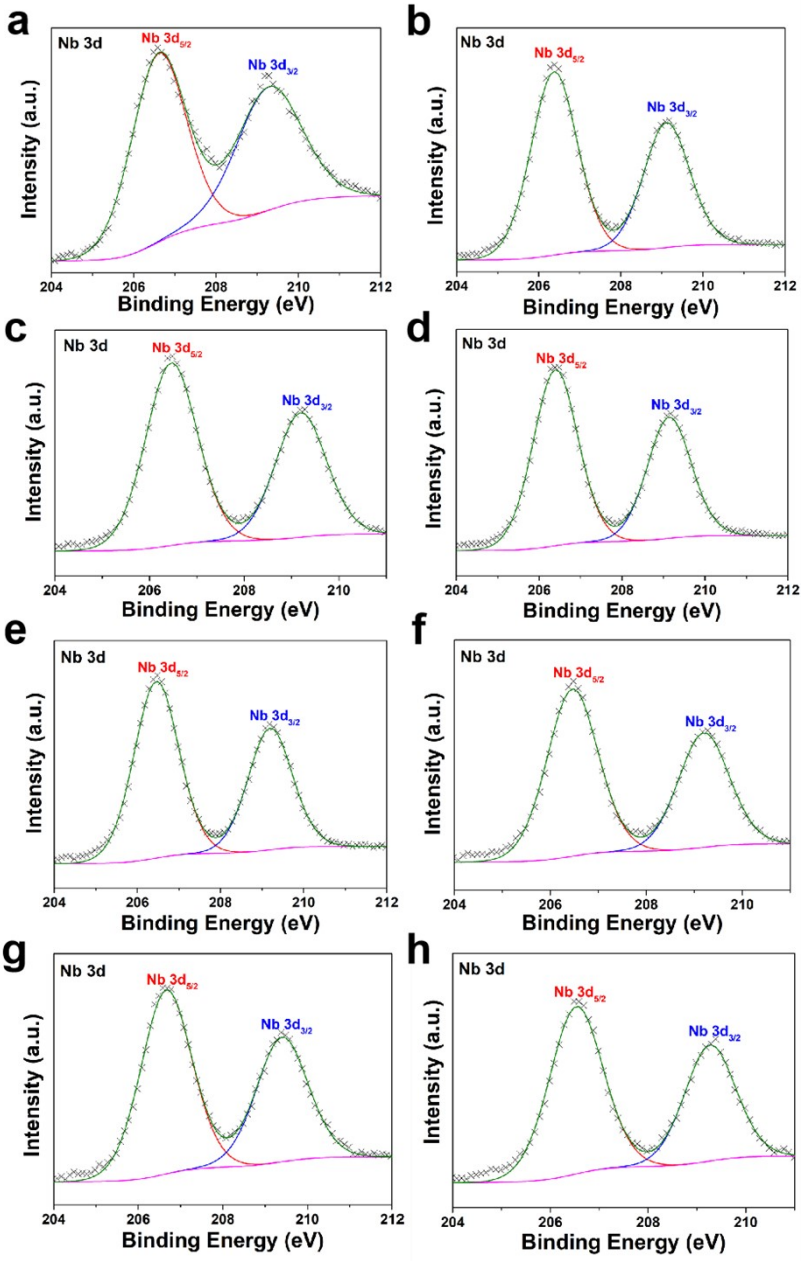

Fig. S2 (a-h) Nb 3d XPS spectra of the $LaMg_{0.66-x}Nb_{0.34}O_{3+\sigma}:Mn^{4+}$ samples (x =-0.06, 0, 0.06, 0.12, 0.18, 0.24, 0.30, 0.36)

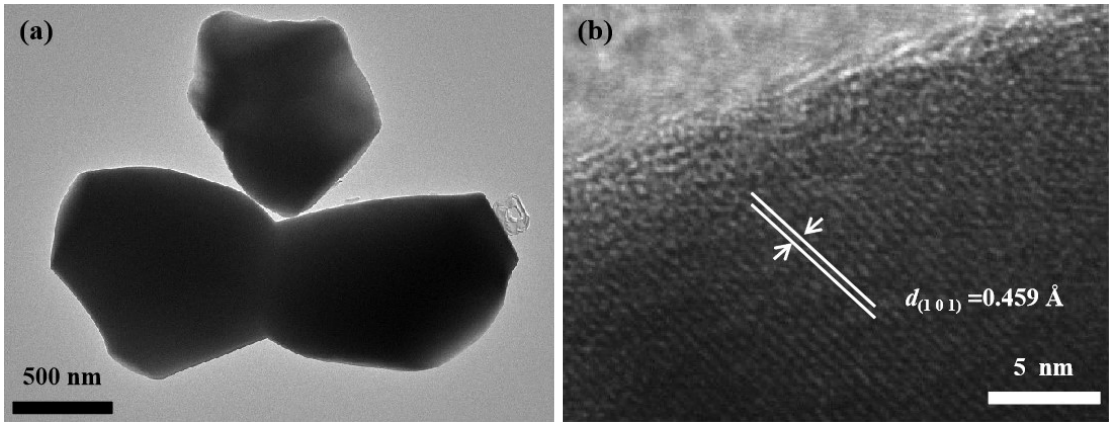

Fig. S3 TEM and HRTEM images of the sample $LaMg_{0.42}Nb_{0.58}O_{3+\sigma}$:$Mn^{4+}$