

Supporting Information

A novel optical thermometry strategy based on upconversion emission of Tm³⁺/Yb³⁺ codoped Na₃GdV₂O₈ phosphors.

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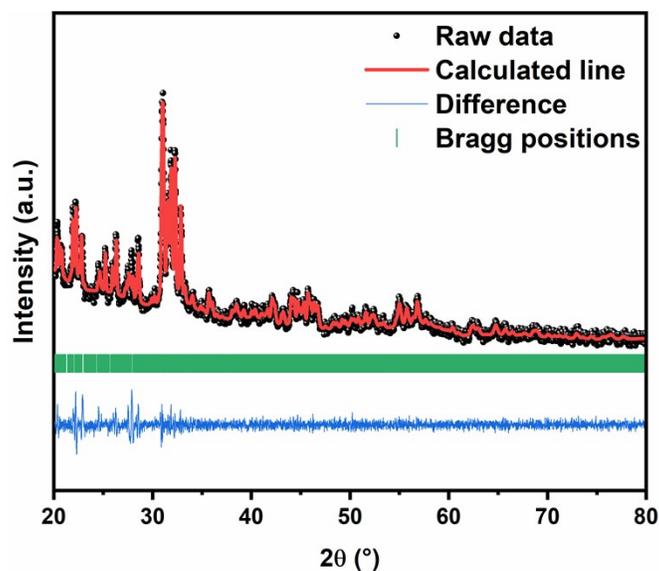


Fig. S1 Rietveld refinement profiles of the XRD pattern of the NGVO: Yb³⁺, Tm³⁺ phosphor.

Table S1. Crystallographic Data of NGVO codoped Tm³⁺/Yb³⁺ from the Refinement.

NGVO Tm ³⁺ /Yb ³⁺
Cryst syst: monoclinic
Z= 24
Space group P2 ₁ /c
a = 29.5852 Å b= 11.2895 Å c= 14.1039Å
α=90° β = 91.9041° γ=90°
V= 4708.1640 Å ³
Rwp= 10.21
X ² =1.73

Table S2. Values obtained for the coefficients of the fittings to Eq. 2 for the LIR results.

LIR	Values of coefficients
LIR₁ (800/475nm)	A = -394.04 B = 303.44 C = -0.3110 ⁻² D = 2.3910 ⁻⁶
LIR₂ (1625/475nm)	A = -216.81 B = 108.59 C = -0.3110 ⁻² D = 2.4210 ⁻⁶