Supporting Information

Ultra- High- Sensitive Temperature Sensing Based on Emission Pr^{3+} and Yb^{3+} codoped $Y_2Mo_3O_{12}$ Nanostructures.

Nozha Ben Amar [(1)], Kamel Saidi [(1, 2)], Christian Hernández-Álvarez [(2)], Mohamed Dammak[(1)], Inocencio R. Martin[(2)]

[1]Université de Sfax, Laboratoire de Physique Appliquée, Faculté des Sciences de Sfax, Département de Physique, BP 1171, Université de Sfax, 3018 Sfax, Tunisie.

[2]Departamento de Física, Instituto Universitario de Materiales y Nanotecnología (IMN), Universidad de La Laguna, San Cristóbal de La Laguna E38200, Spain.

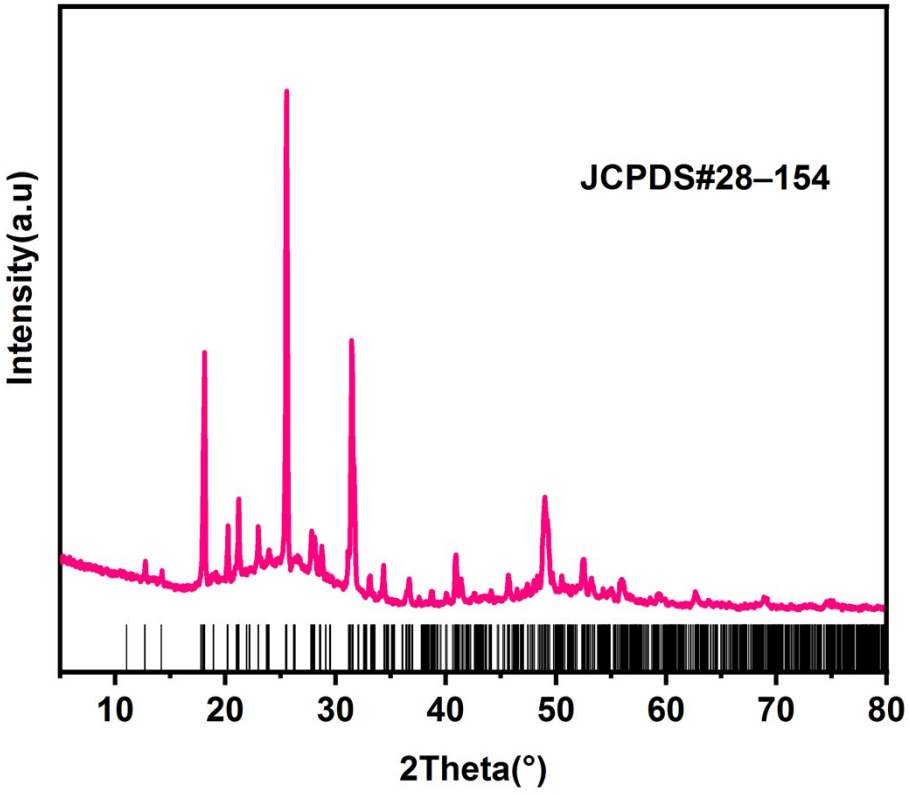


Figure S1. XRD pattern of YMO

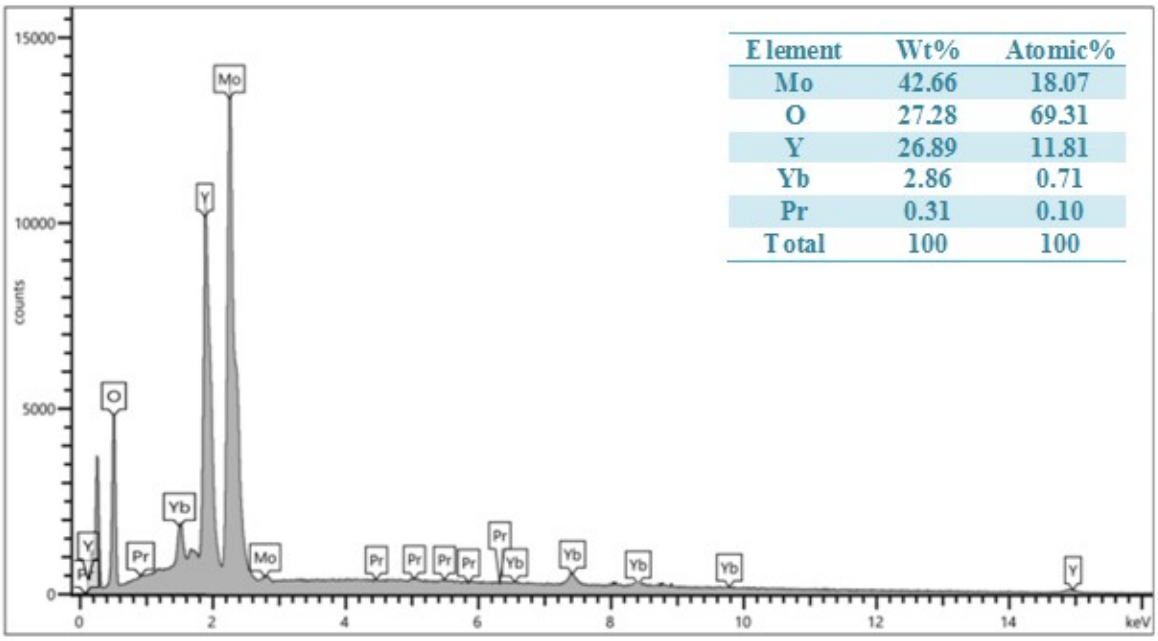


Figure S2. The EDX distribution of $Y_2Mo_3O_{12}$: 2% Pr^{3+} / 15%Yb^{3+}

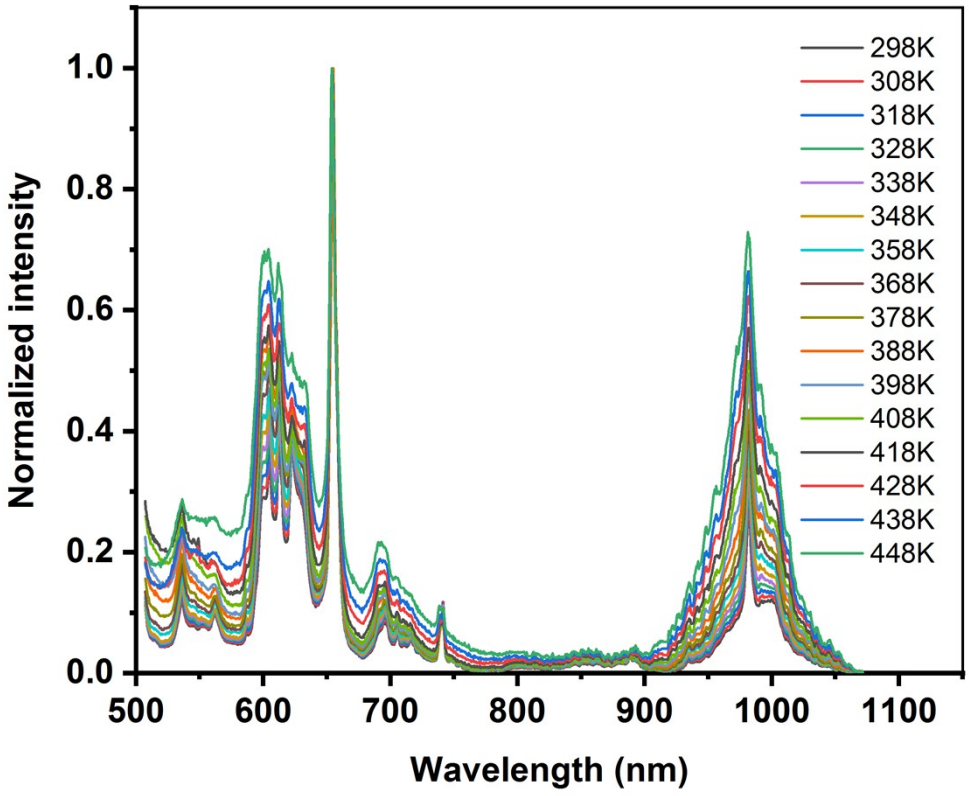
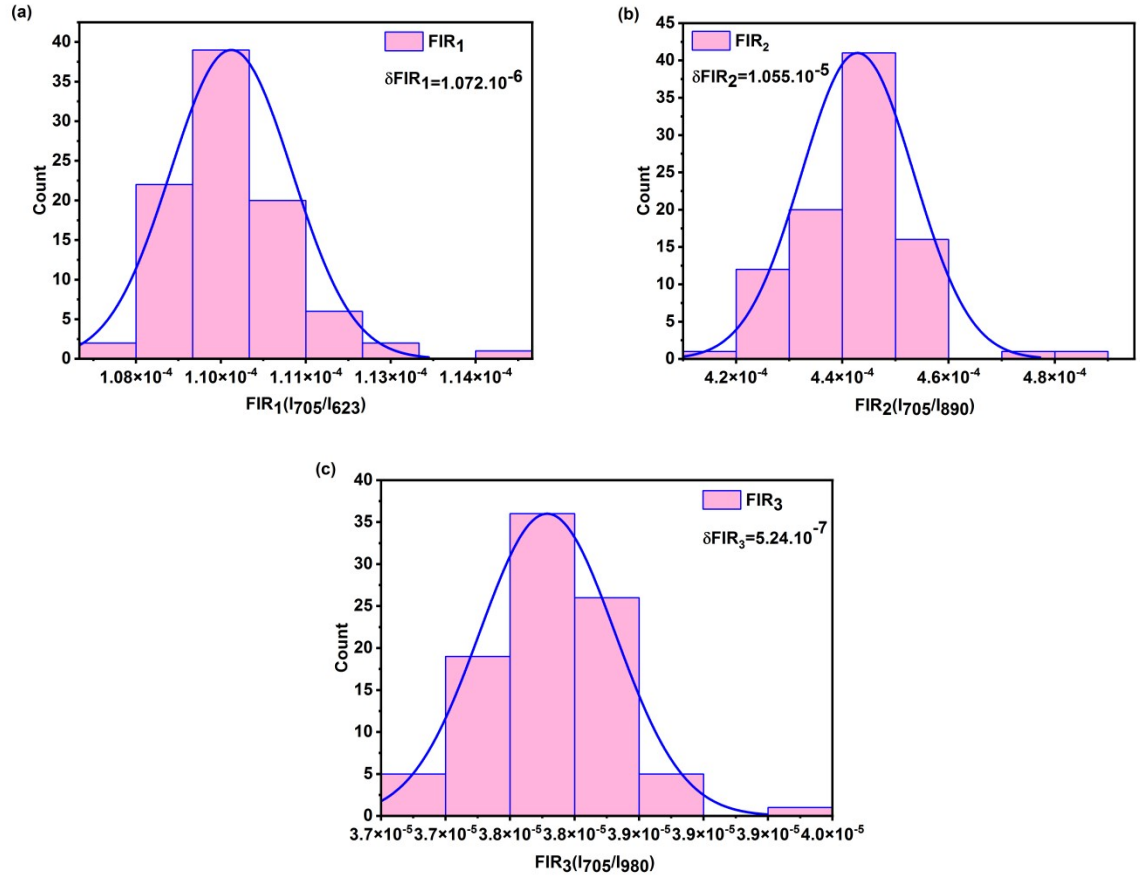


Figure S3. Normalized emission spectra of $Y_2Mo_3O_{12}$: 2% Pr^{3+}/ 15% Yb^{3+}



FigureS4. Standard deviations at RT for (a) FIR_1, (b) FIR_2 and (c) FIR_3 obtained using 100 measurements at 300 K

Table S1. The calculated FIR of NTCL of $Y_2Mo_3O_{12}$: 2% Pr^{3+} /15%Yb^{3+}

Intensity ratio	FIR
I_{705}/I_{890}	$FIR_2=0.1247-0.\ 00107.T+2.9595.10^{-6}T^2-2.577.10^{-9}T^3$
I_{705}/I_{980}	$FIR_3=6.5871.10^{-4}-1.3963.10^{-5}T+5.8479.10^{-8}T^2-6.2463.10^{-11}T^3$