

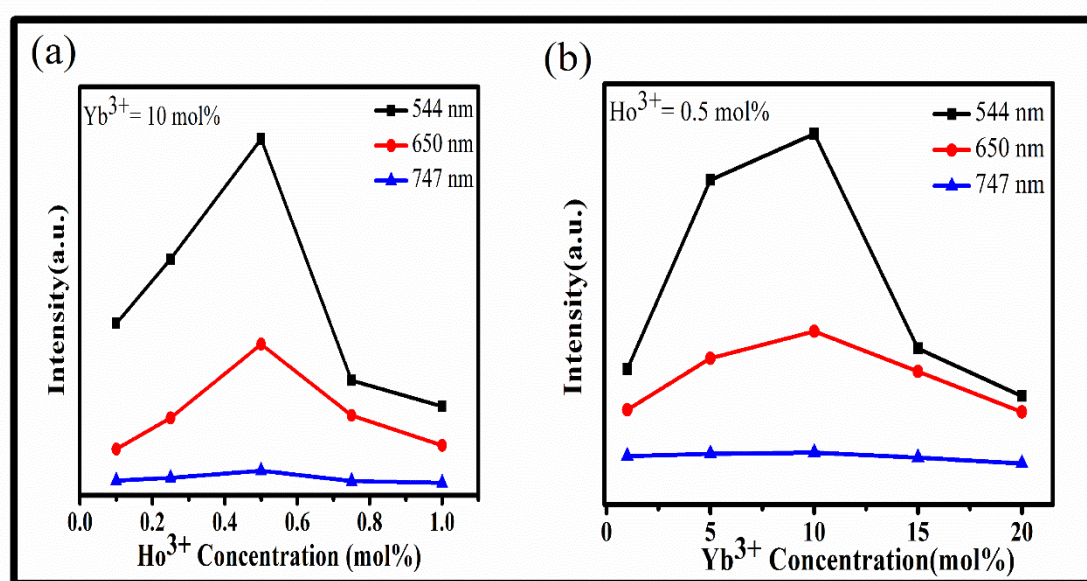
# **Synthesis and Upconversion Emission Studies of $\text{CaYF}_5:\text{Ho}^{3+}/\text{Yb}^{3+}$ Phosphor and its Applications as Optical Thermometry and Fingerprint Detection, and Security Ink**

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## **Supplementary information**



**Figure S1: Variation in upconversion emission intensity with (a) variation in  $\text{Ho}^{3+}$  concentration with fixed  $\text{Yb}^{3+}$  concentration and (b) variation in  $\text{Yb}^{3+}$  concentration with fixed  $\text{Ho}^{3+}$  concentration.**