

Supplementary Information

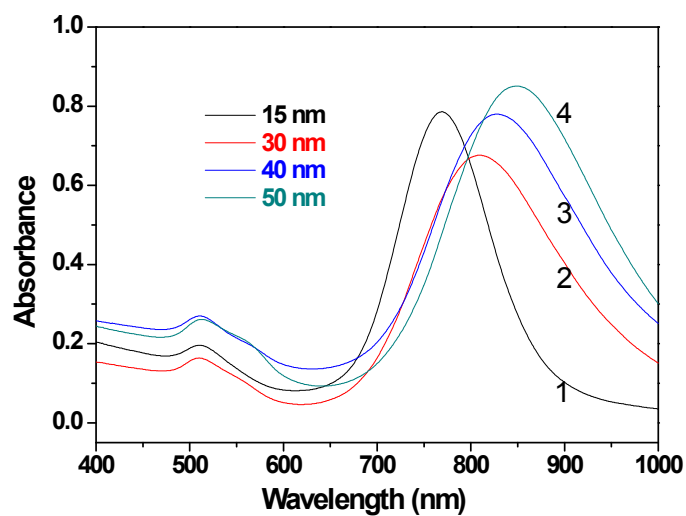


Fig. S1 The red shift of the longitudinal absorption peaks of Au_{nanorod}@mSiO₂ with different silica thickness.

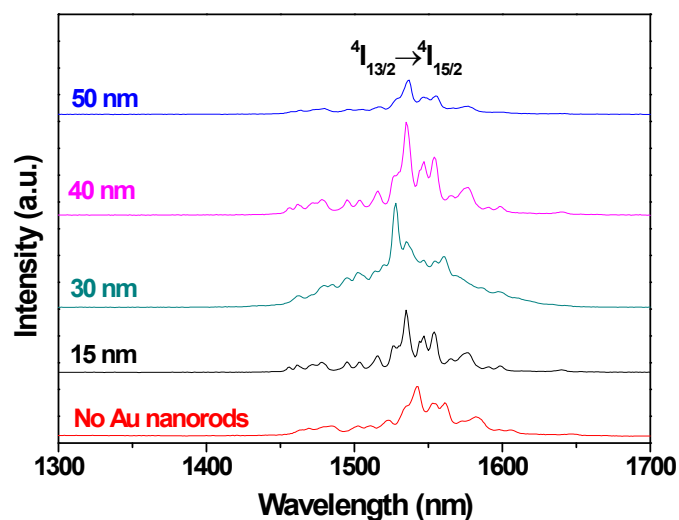


Fig. S2 Down conversion spectra of Y₂O₃:Er and Au_{nanorod}@mSiO₂@Y₂O₃:Er nanocomposites with different spacer thickness of silica.

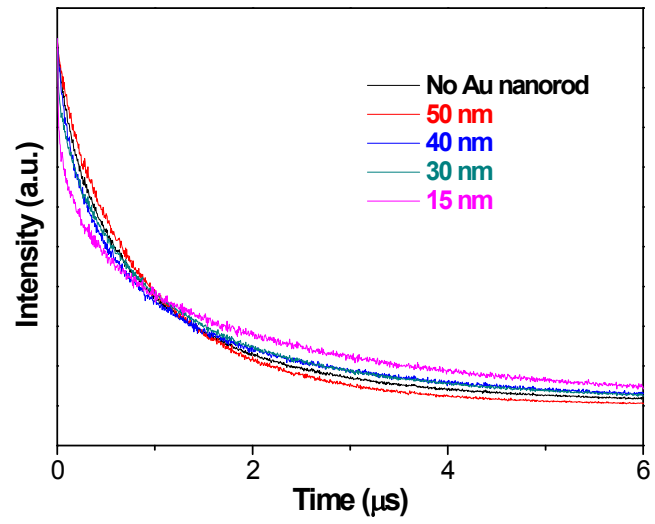


Fig. S3 Decay curves of $\text{Y}_2\text{O}_3:\text{Er}$ and $\text{Au}_{\text{nanorod}}@\text{mSiO}_2@\text{Y}_2\text{O}_3:\text{Er}$ nanocomposites with different spacer thickness of silica