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SUPPORTING INFORMATION

One-pot synthesis of PEG modified $BaLuF_5$: Gd/Yb/Er nanoprobes for dual-modal *in vivo* upconversion luminescent and X-ray bioimaging

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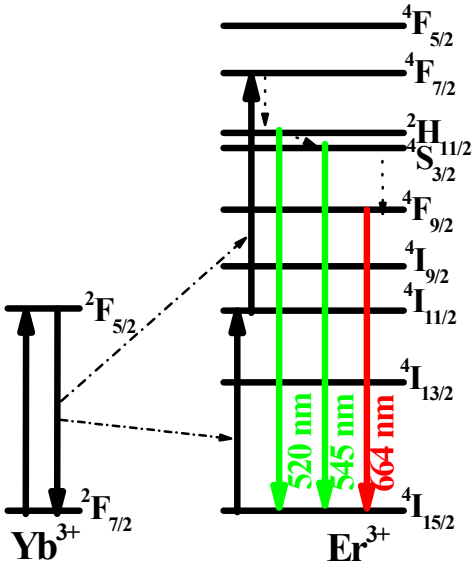

Fig. s1 Simplified energy level diagrams of Yb^{3+}/Er^{3+}. The green and red light centered at 520/545 and 664 nm, which can be attributed to the electronic transition $^2H_{11/2}/^4S_{3/2} \rightarrow {}^4I_{15/2}$ and $^4F_{9/2} \rightarrow {}^4I_{15/2}$ of Er^{3+} ions.