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Lanthanide doped bismuth-based fluoride nanoparticles: controlled synthesis and ratiometric temperature sensing

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KEYWORDS: $NaBiF_4$, upconversion luminescence, controlled synthesis, temperature sensing

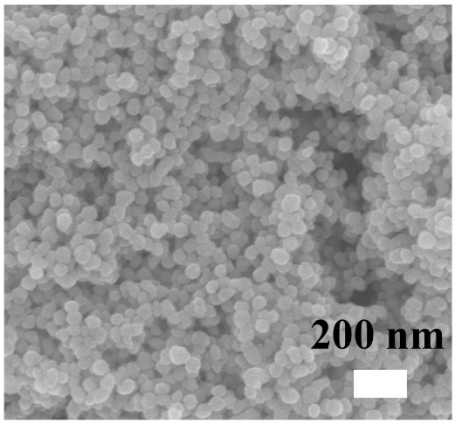

Fig. S1 SEM image of $NaBiF_4$:Yb^{3+}/Er^{3+}/25%Gd^{3+} UCNPs.

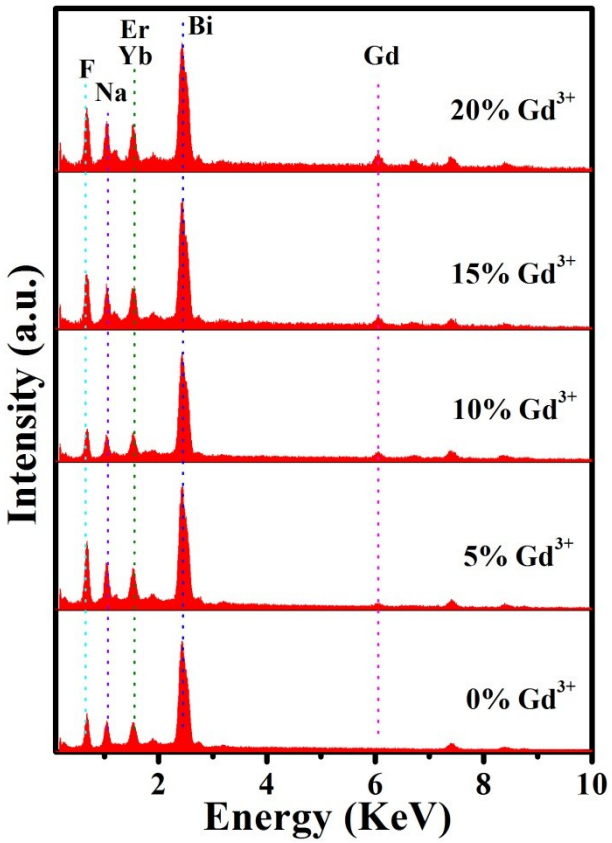

Fig. S2 X-ray energy-dispersive (EDX) spectroscopy of $NaBiF_4$:Yb^{3+}/Er^{3+}/x%Gd^{3+} UCNPs (x = 0, 5, 10, 15, 20).