

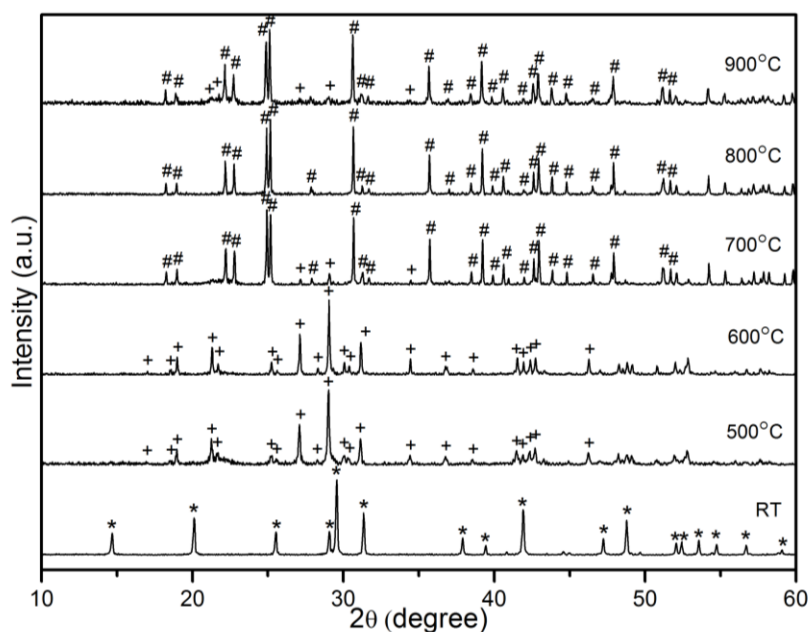
# Multicolor and bright white upconversion luminescence from rice-shaped lanthanide doped BiPO<sub>4</sub> submicron particles

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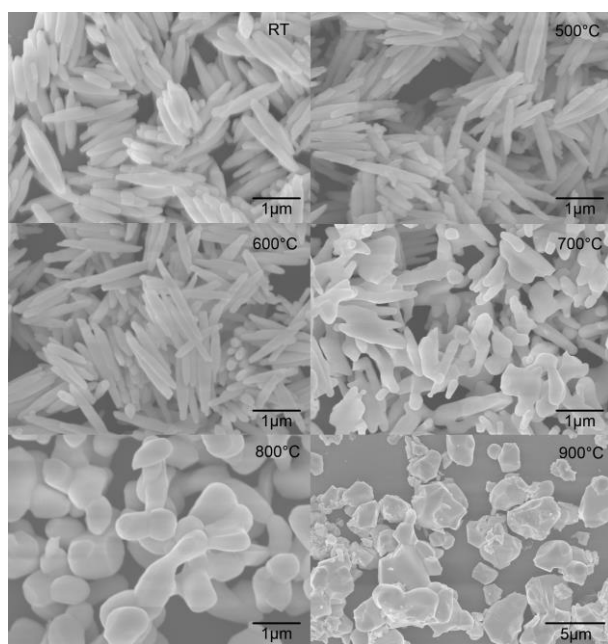
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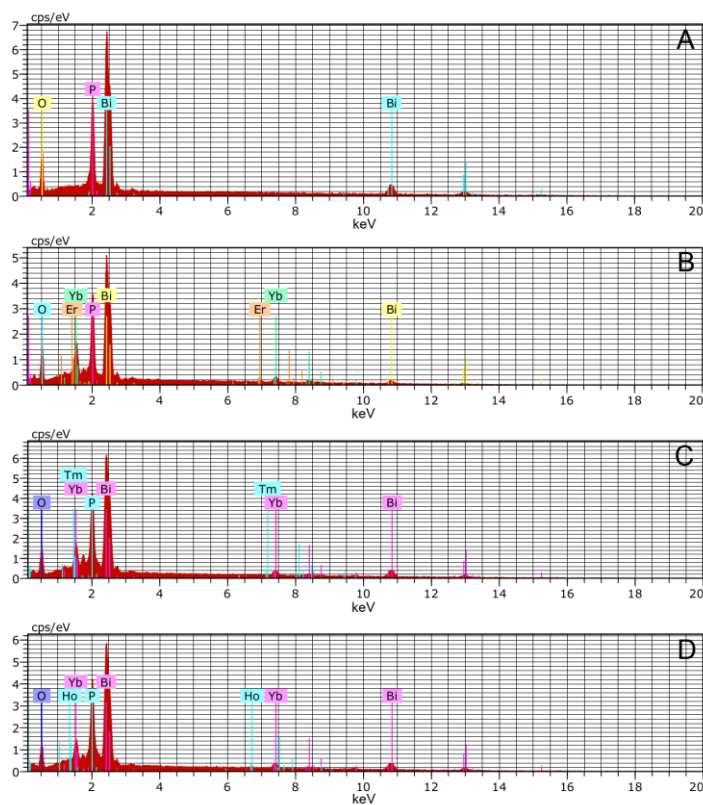
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**Fig. S1** XRD patterns of BiPO<sub>4</sub> prepared at room temperature (RT) and after calcination at given temperatures. Symbols of \*, + and # represent the standard diffraction lines of HP, LTMP and HTMP BiPO<sub>4</sub> respectively.



**Fig. S2** SEM images of undoped BiPO<sub>4</sub> particles obtained at different temperature



**Fig. S2** X-ray Energy-dispersive (EDX) spectroscopy of (A) undoped

BiPO<sub>4</sub>, (B) BiPO<sub>4</sub>:20% Yb<sup>3+</sup>/2% Er<sup>3+</sup>, (C) BiPO<sub>4</sub>:20% Yb<sup>3+</sup>/0.5% Tm<sup>3+</sup> and  
(D) BiPO<sub>4</sub>:20% Yb<sup>3+</sup>/2% Ho<sup>3+</sup> obtained at room temperature.