

## Supplementary Information

### Influence of interstitial $\text{UO}_2^{2+}$ doping on the valence control of Eu and energy transfer to substitutional $\text{Eu}^{3+}$ and $\text{Sm}^{3+}$ in $\text{SrBPO}_5$

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#### Table S1.

**Table S1:**  $\text{Sm}^{2+}$  transitions and corresponding emission maxima in  $\text{SBP:Sm}_{0.005}$

Transition	$^5\text{D}_0 \rightarrow ^7\text{F}_0$	$^5\text{D}_0 \rightarrow ^7\text{F}_1$	$^5\text{D}_0 \rightarrow ^7\text{F}_2$	$^5\text{D}_0 \rightarrow ^7\text{F}_3$	$^5\text{D}_0 \rightarrow ^7\text{F}_4$
Emission maxima, nm ( $\text{cm}^{-1}$ )	678 (14749)	688 (14535)	718 (13928)	757 (13210)	805 (12422)
	683 (14641)	691 (14472)	723 (13831)	765 (13072)	813 (12300)
		695 (14388)	727 (13755)	767 (13038)	819 (12210)
		703 (14225)	732 (13661)	770 (12987)	823 (12151)
		709 (14104)	734 (13624)		
			737 (13568)		
			744 (13441)		