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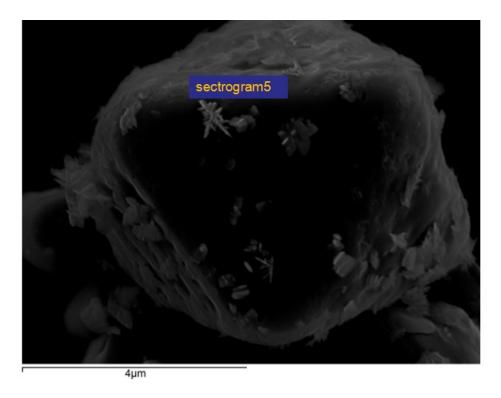
## **Supplement information**

## Luminescence Properties of Eu<sup>3+</sup> Doped Na<sub>3</sub>FeF<sub>6</sub>

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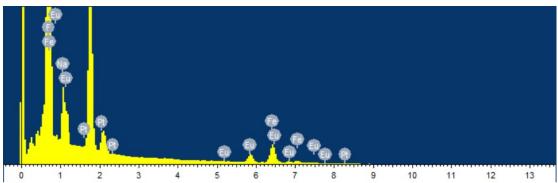


Fig S1. SEM image and the corresponding energy-dispersive spectrum EDS of the  $Na_3FeF_6$ : 5%Eu powder.

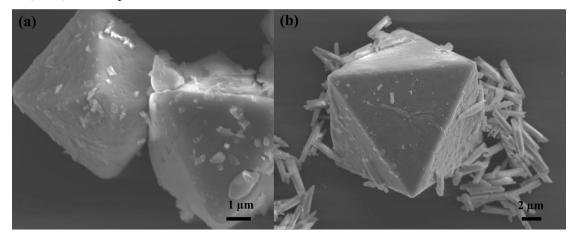
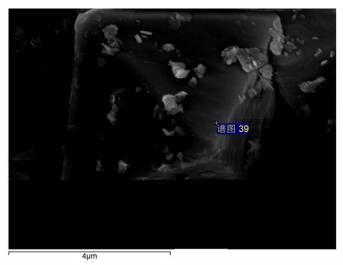


Fig S2. SEM image: (a) Na<sub>3</sub>FeF<sub>6</sub> powder and (b) Na<sub>3</sub>FeF<sub>6</sub>: 15%Eu powder.



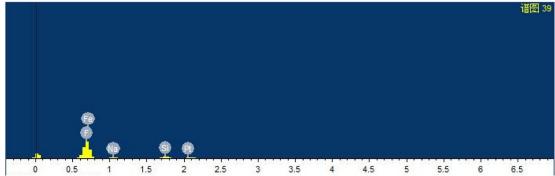


Fig S3. SEM image and the corresponding energy-dispersive spectrum EDS of the  $Na_3FeF_6$  powder.

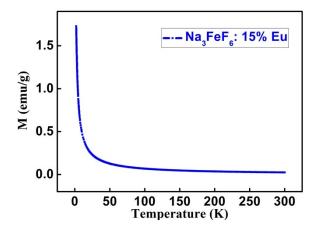


Fig S4. The magnetization curve of  $Na_3FeF_6$ : 15%  $Eu^{3+}$  particals at different temprature.

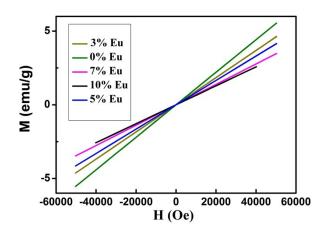


Fig S5 The Magnetization curves of  $Na_3FeF_6$  doped with different concentration of  $Eu^{3+}$  ions at 300 K.