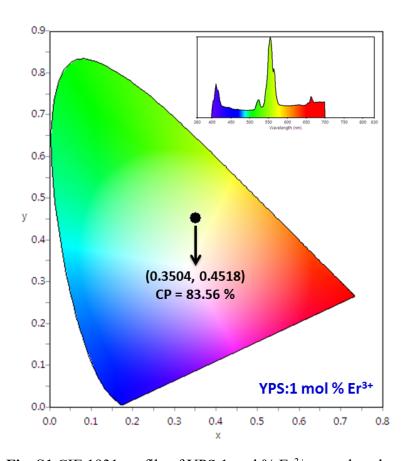
## Realization of green emitting pyrosilicate structured Er<sup>3+</sup> activated Y<sub>2</sub>Si<sub>2</sub>O<sub>7</sub> phosphor: A systematic study of opto-electronic characteristics and thermal stability for lighting applications

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## **Electronic Supporting Information**



**Fig. S1** CIE 1931 profile of YPS:1 mol % Er<sup>3+</sup> nanophosphor.

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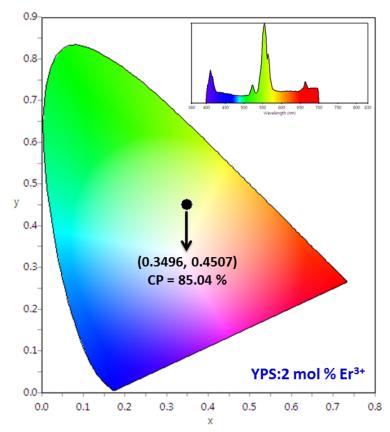


Fig. S2 CIE 1931 profile of YPS:2 mol % Er<sup>3+</sup> nanophosphor.

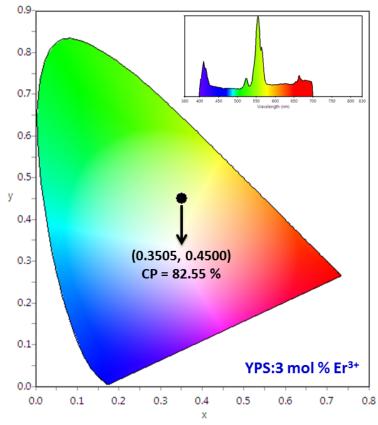
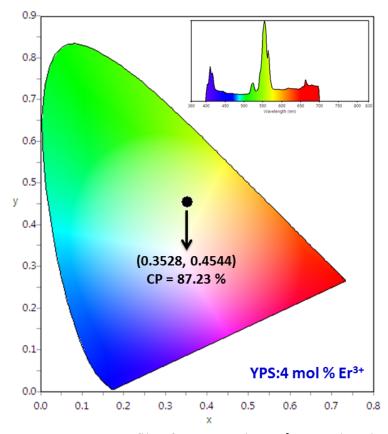
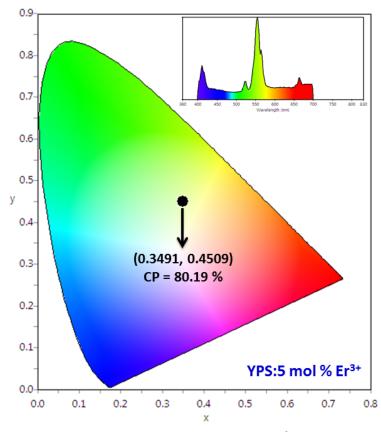


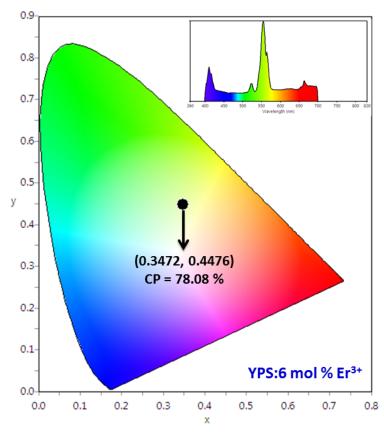
Fig. S3 CIE 1931 profile of YPS:3 mol % Er<sup>3+</sup> nanophosphor.



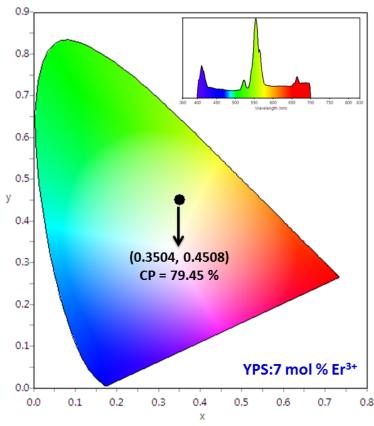
**Fig. S4** CIE 1931 profile of YPS:4 mol % Er<sup>3+</sup> nanophosphor.



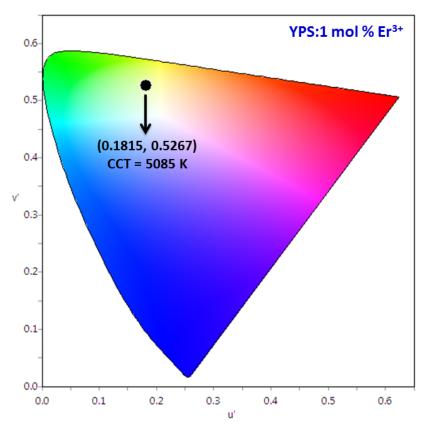
**Fig. S5** CIE 1931 profile of YPS:5 mol % Er<sup>3+</sup> nanophosphor.



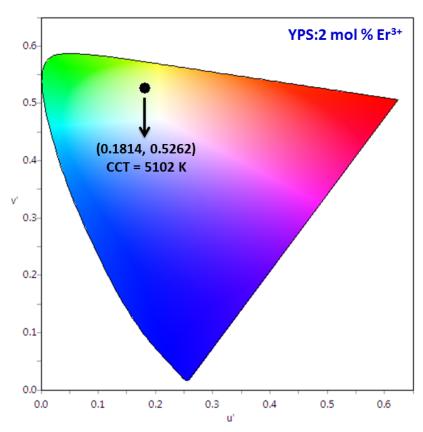
**Fig. S6** CIE 1931 profile of YPS:6 mol % Er<sup>3+</sup> nanophosphor.



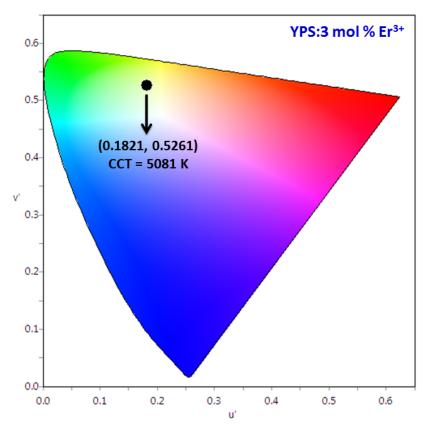
**Fig. S7** CIE 1931 profile of YPS:7 mol % Er<sup>3+</sup> nanophosphor.



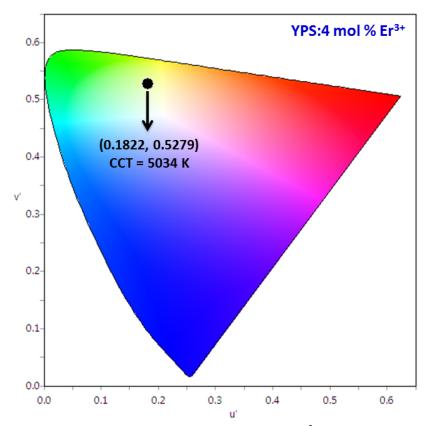
**Fig. S8** CIE 1976 profile of YPS:1 mol % Er<sup>3+</sup> nanophosphor.



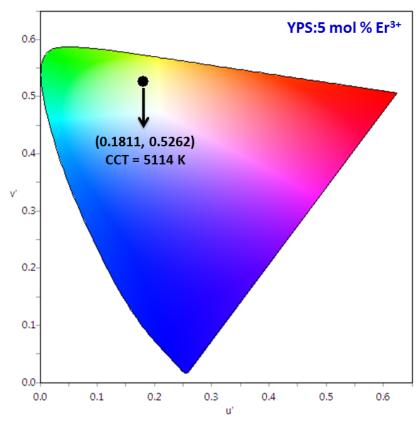
**Fig. S9** CIE 1976 profile of YPS:2 mol % Er<sup>3+</sup> nanophosphor.



**Fig. S10** CIE 1976 profile of YPS:3 mol % Er<sup>3+</sup> nanophosphor.



**Fig. S11** CIE 1976 profile of YPS:4 mol % Er<sup>3+</sup> nanophosphor.



**Fig. S12** CIE 1976 profile of YPS:5 mol % Er<sup>3+</sup> nanophosphor.

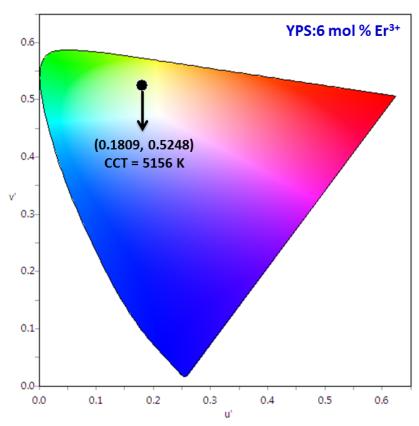
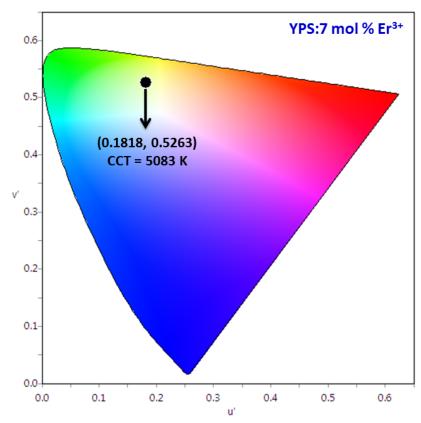


Fig. S13 CIE 1976 profile of YPS:6 mol % Er<sup>3+</sup> nanophosphor.



**Fig. S14** CIE 1976 profile of YPS:7 mol % Er<sup>3+</sup> nanophosphor.