

Electronic Supplementary Information (ESI)

Optical performance of Mn⁴⁺ in a new hexa-coordinative fluorozirconate complex of Cs₂ZrF₆

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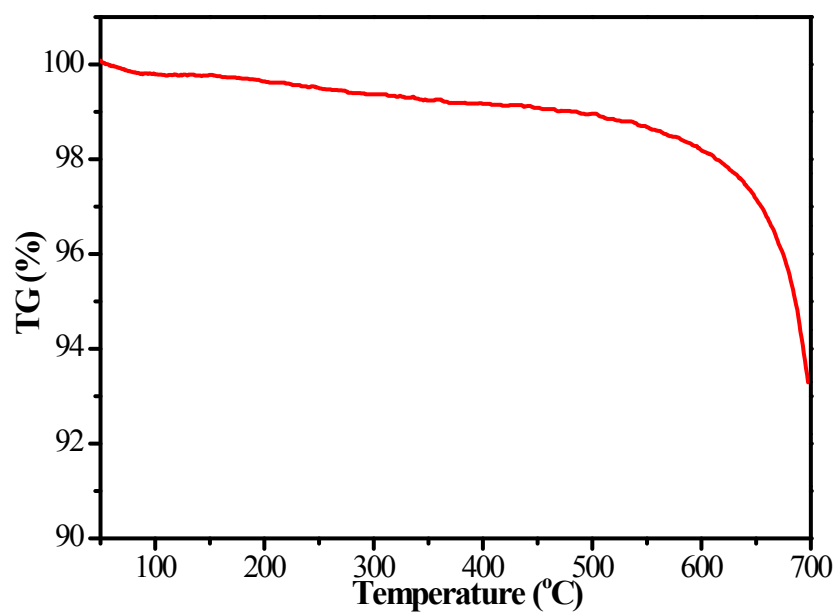


Fig. S1 TG curve of the Cs₂ZrF₆:Mn⁴⁺ red phosphor under N₂ atmosphere. The thermal stability is investigated from PerkinElmer STA 8000 at a heating rate of 10 K/min.

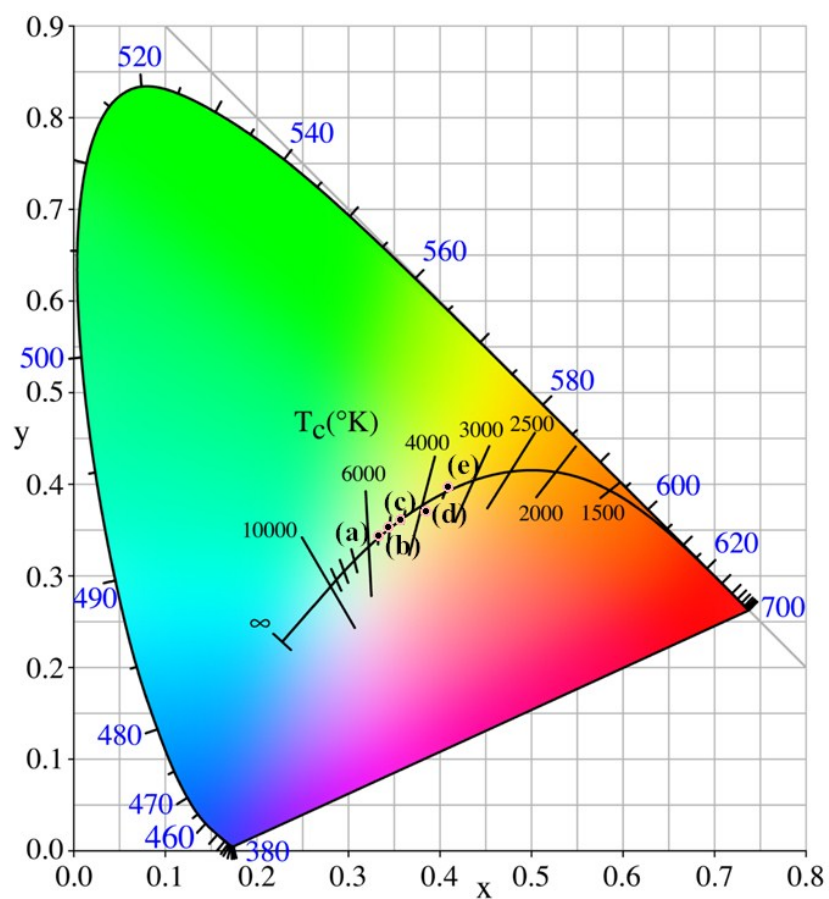


Fig. S2 The chromaticity coordinates of five LEDs in CIE 1931 color spaces.

Tab. S1: Typical LED photoelectric parameters with different amount of $\text{Cs}_2\text{TiF}_6\text{:Mn}^{4+}$ phosphor under a current of 20 mA

Device	Phosphor	CTFM (w/%)	T_c (K)	Ra	CIE (x, y)	Luminous Efficacy (lm/W)
a	YAG	0	5485	71.1	(0.333, 0.344)	140.9
b	YAG + CZFM	5	5060	71.7	(0.344, 0.353)	136.3
c	YAG + CZFM	10	4609	74.3	(0.357, 0.362)	132.4
d	YAG + CZFM	15	3818	79.9	(0.386, 0.371)	129.1
e	YAG + CZFM	20	3459	82.4	(0.410, 0.398)	132.2