Supporting information

Realization of white-light-emitting diodes from a high-brightness zirconium-based metal-organic gel driven by AIE effect

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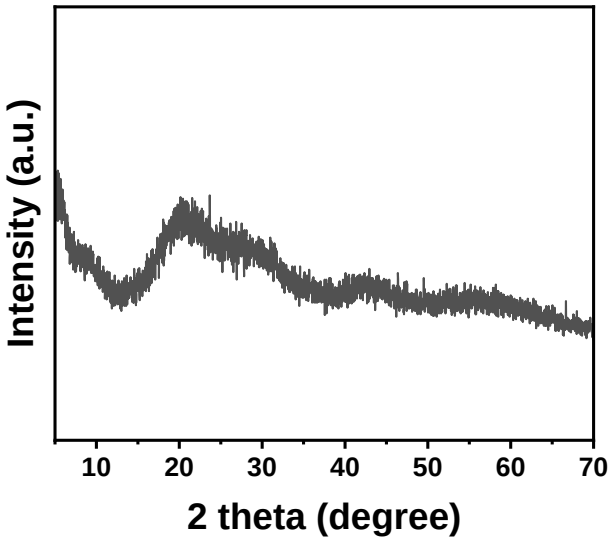

Figure S1. PXRD pattern of YTU-G-1(SE).

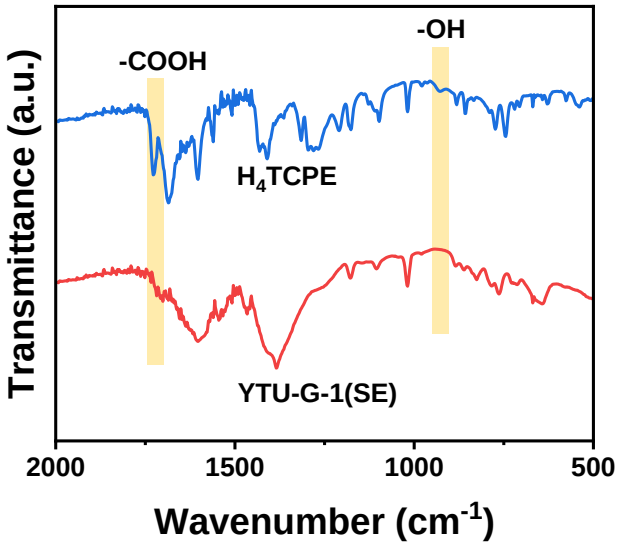

Figure S2. FTIR spectra of H_4TCPE and YTU-G-1(SE).

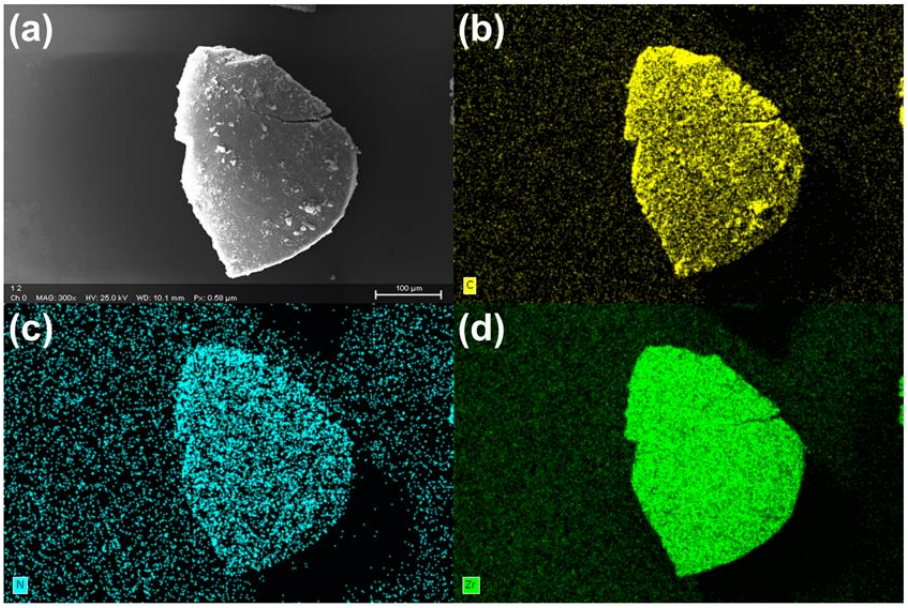

Figure S3. (a) The SEM images of YTU-G-1(SE) and Element-mapping images of (b) C, (c) N, (d) Zr.

Table S1. The elemental analysis results of YTU-W-1(SE)

Sample	N (%)	C (%)	H (%)	O (%)	Zr (%)
YTU-G-1(SE)	1.80	43.67	3.62	23.40	27.51

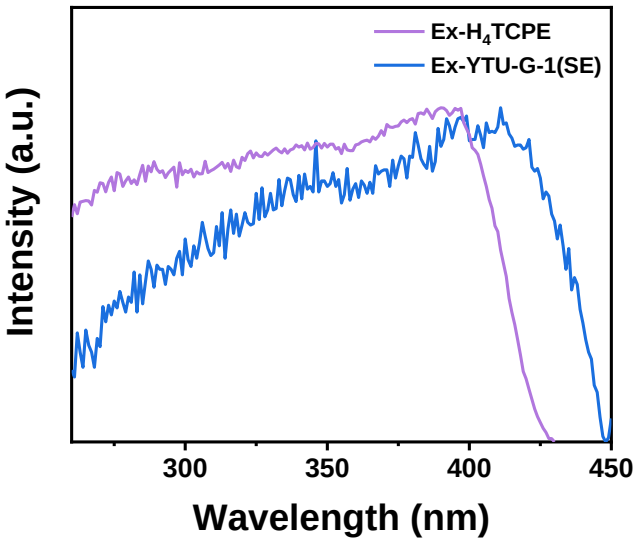

Figure S4. The excitation spectra of H_4TCPE and YTU-G-1(SE).

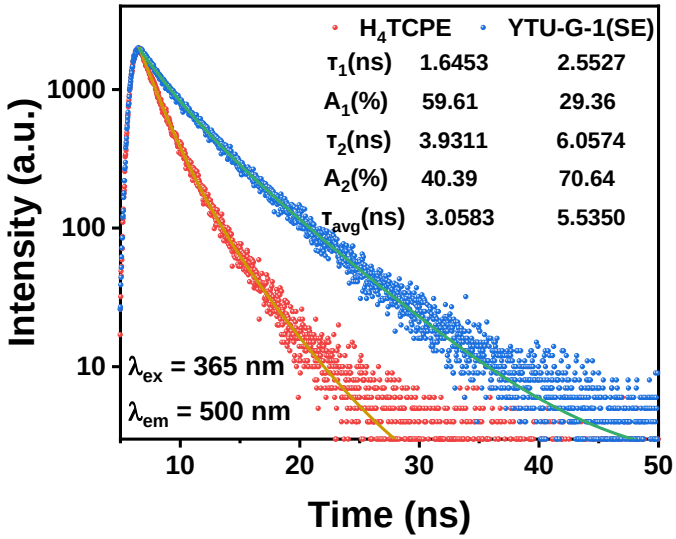

Figure S5. The decay curve of H_4TCPE and YTU-G-1(SE).

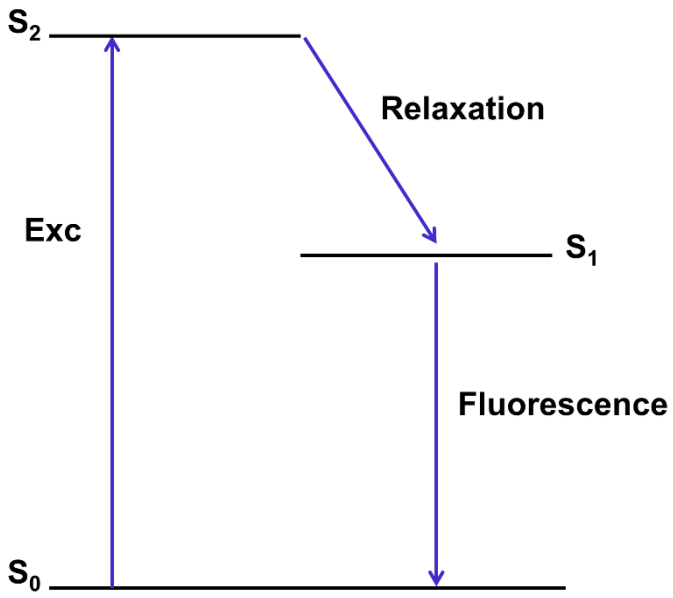

Figure S6. The light-emitting mechanism of YTU-G-1(SE).

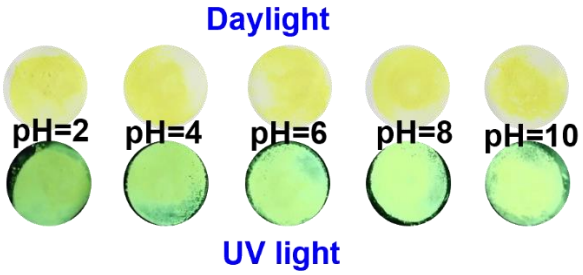

Figure S7. The corresponding photographs of YTU-G-1(SE) under daylight and UV light immersed in deionized water for different pH.

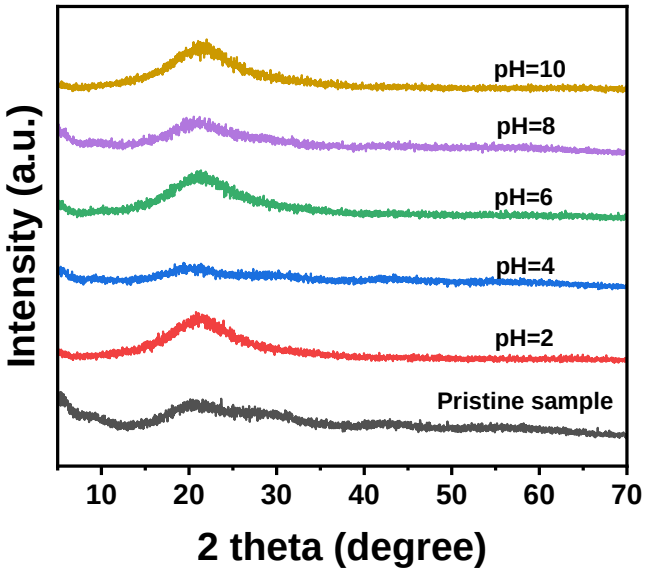

Figure S8. The PXRD patterns of YTU-G-1(SE) after treatment in aqueous solutions with different pH values.

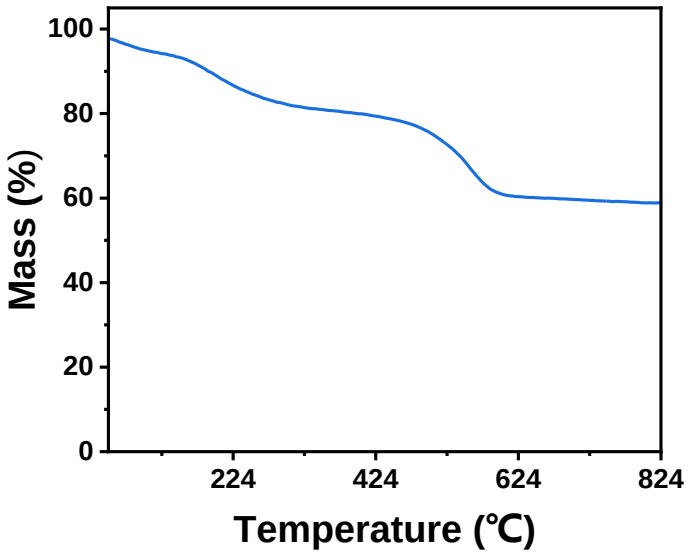

Figure S9. TGA curves of YTU-G-1(SE) under Ar.

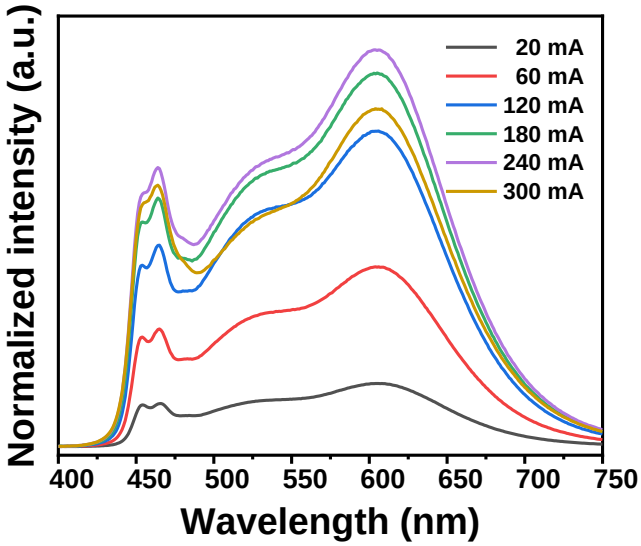

Figure S10. The EL spectra of the fabricated LED under various drive currents.

Table S2. Summary of yellow phosphors used for WLED devices.

Materials	IQE/EQE (%)	Synthesis temperature (℃)	CCT (K)	Ra	Reference
$NaAlSiO4:Eu^{2+}$	95.14/78.14	1300	5941	92	1
$(Ba,Sr)Si_3Al_3O_4N_5:Yb^{2+}$	86.9/35.0	1600	5650	80	2
$Lu_3(Al,Mg)_2(Al,Si)_3O_{12}:Ce^{3+}$	85.1/49.3	1350	6164	75.6	3
InGaN/GaN	39/0.014	600	6056	87.7	4
Li-α-SiAlON:Eu^{2+}	—	1700	6150	72	5
YTU-G-1(SE)	95.74/88.67	100	3736	88.2	This work

References

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