Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

Supporting Information

Thermally stable and strongly emitted CPL in Eu(*D*-facam)$_3$ hybrid solid with alkyl-ammonium salt

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Table S1. Some reports on solid state excellent CPL materials in recent years

Organic luminophores	$\|g_{lum}\|$
A chiral difluoro-boron diketonate complexes (crystalline state)[1]	2.4×10^{-2}
A (*R*,*R*,*R*,*R*,*R*,*R*)-naphthodioxepin (dioxepin-fusednaphthalene) octamer[2]	2.2×10^{-3}
The axial chiral triaryborane dyes[3]	$1.0–1.7\times10^{-3}$
Lanthanide luminophores	
A chiral Eu(III) coordination polymers[4]	9.2×10^{-2}

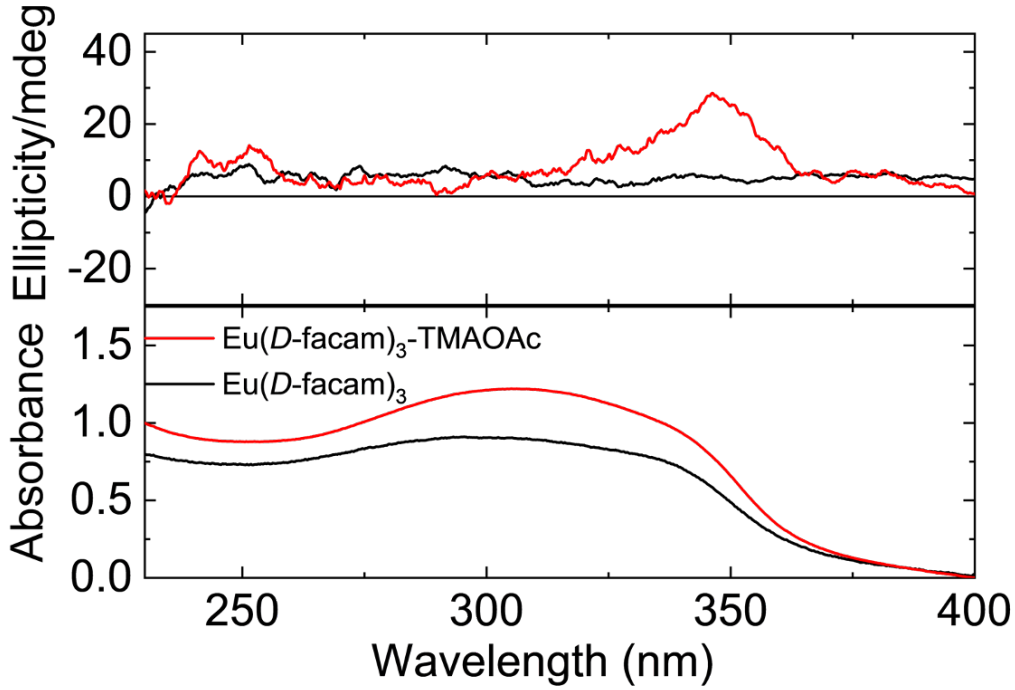

Figure S2. Absorption (bottom) and CD (top) spectra of Eu(*D*-facam)$_3$ and Eu(*D*-facam)$_3$-TMAOAc in KBr pellet.

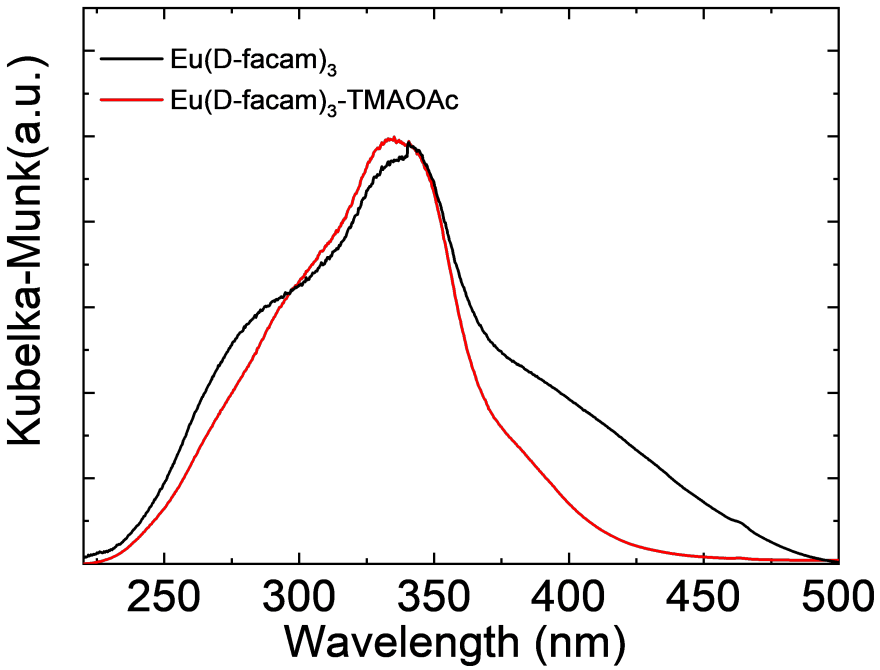

Figure S3. UV-Visible Kubelka–Munk diffuse reflectance spectra of Eu(*D*-facam)$_3$ and Eu(*D*-facam)$_3$-TMAOAc in solid state.

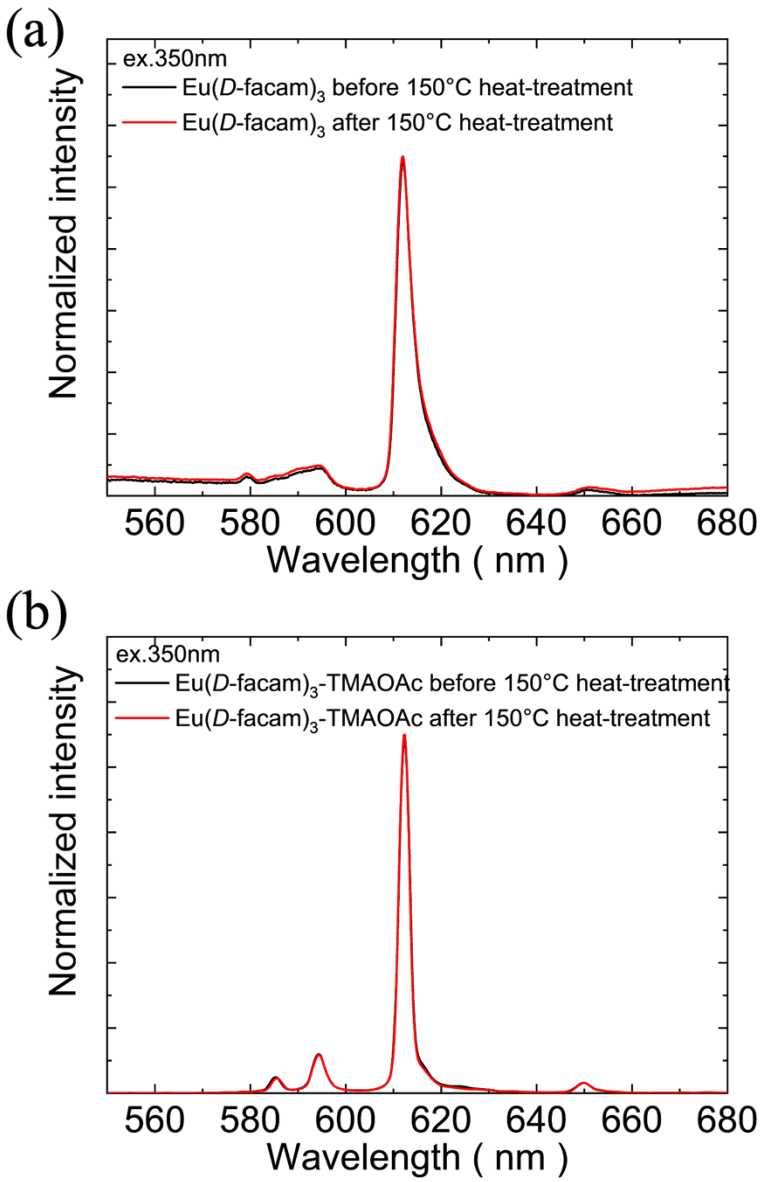

Figure S4. Emission spectra of (a)Eu(*D*-facam)$_3$ and (b)Eu(*D*-facam)$_3$-TMAOAc before and after 24 hours 150 °C heat-treatment and cooling to room temperature.

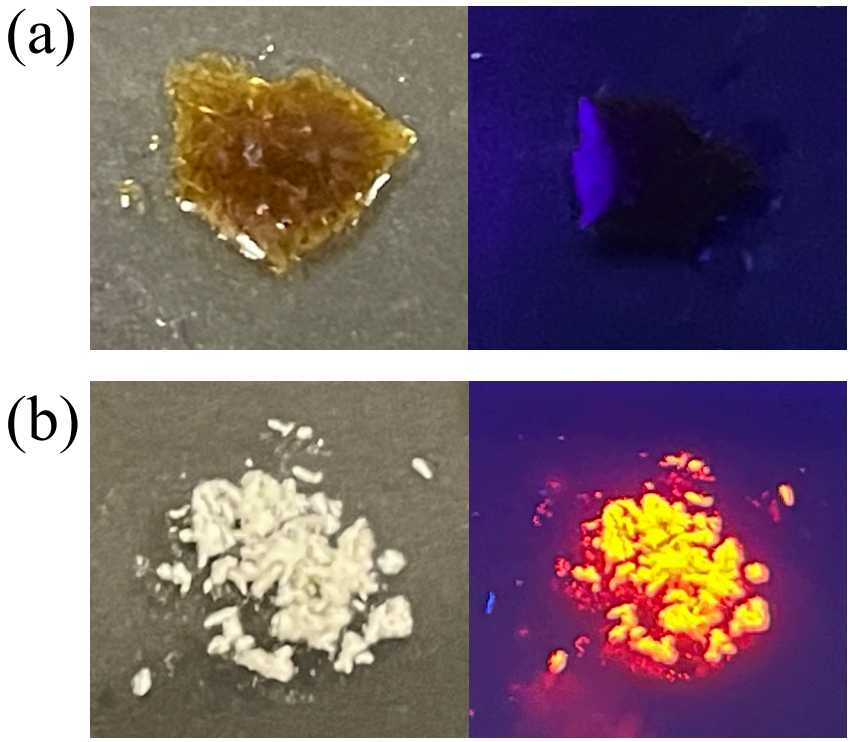

Figure S5. Digital photographs of (a)Eu(*D*-facam)$_3$ and (b)Eu(*D*-facam)$_3$-TMAOAc with (right) and without (left) UV irradiation after 24 hours 200 °C heat-treatment and cooling to room temperature.

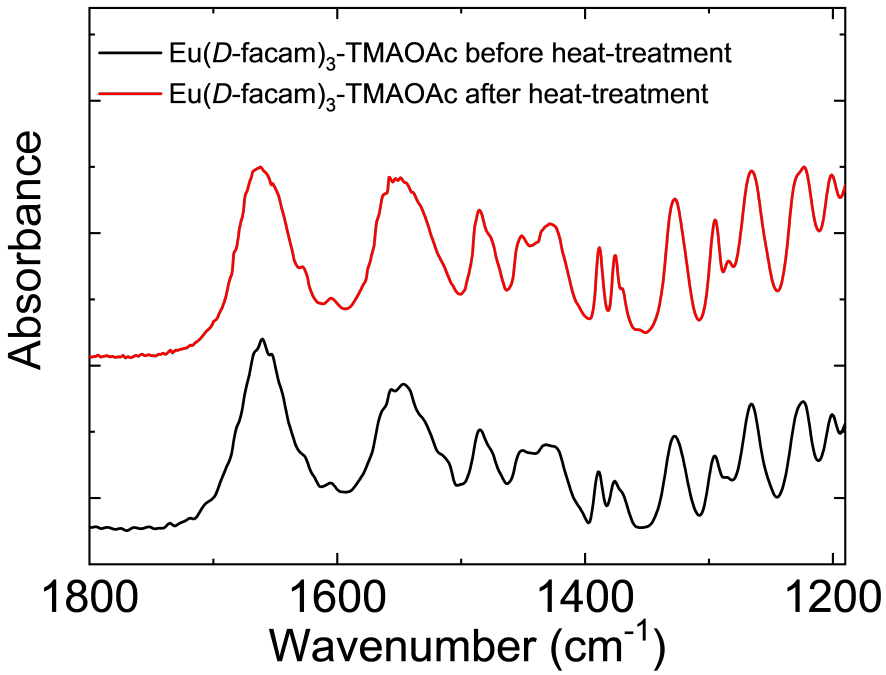

Figure S6. FT-IR spectra of Eu(*D*-facam)$_3$-TMAOAc before and after 24 hours 200 °C heat-treatment.

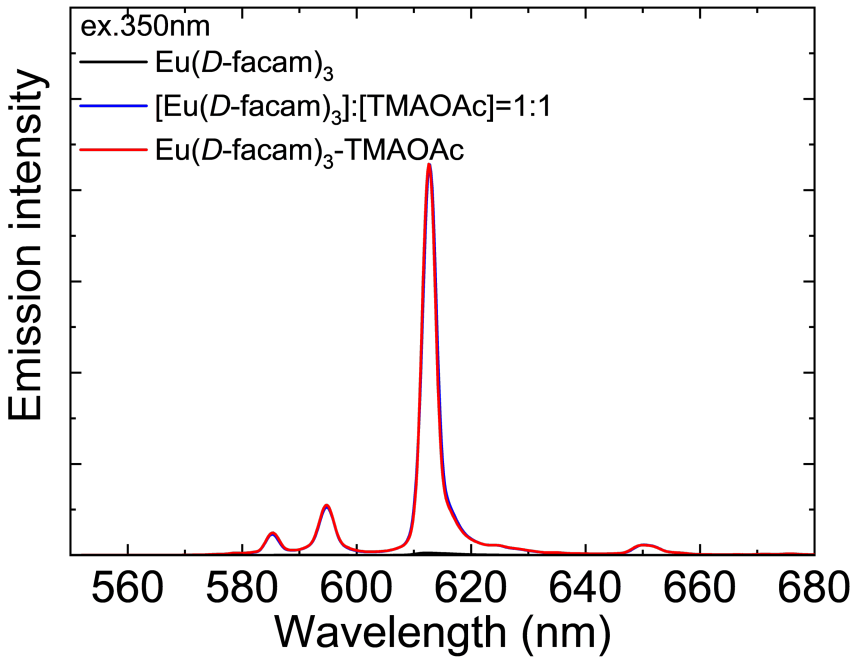

Figure S7. Emission spectra of Eu(*D*-facam)$_3$, Eu(*D*-facam)$_3$-TMAOAc and mixed [Eu(*D*-facam)$_3$]:[TMAOAc]=1:1 in 1-butanol. The excitation wavelength was 350 nm.

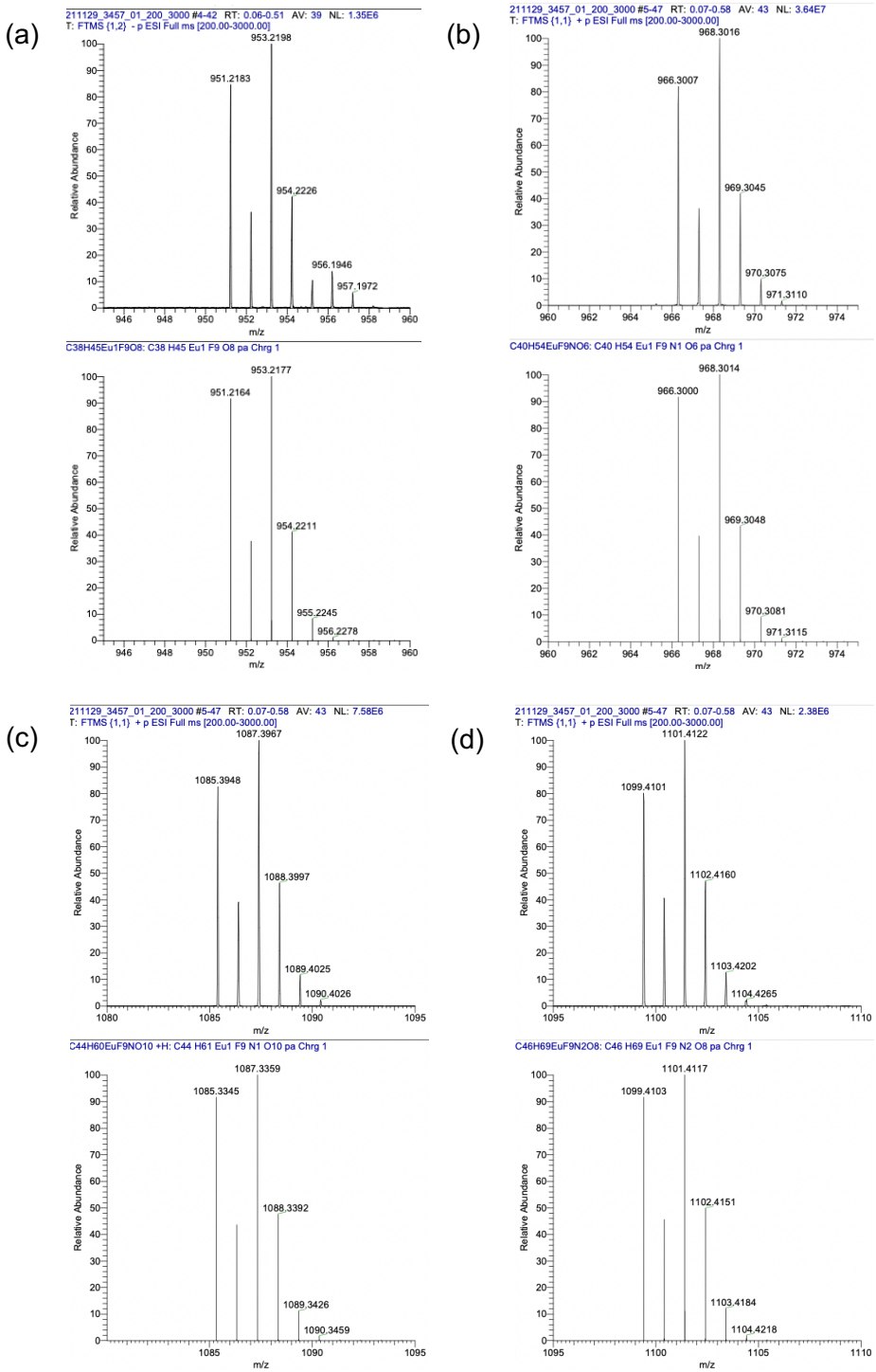

Figure S8. Experimental (top) and calculated (bottom) MS spectra of (a) [Eu(*D*-facam)$_3$·OAc]$^-$, (b)[Eu(*D*-facam)$_3$·TMA]$^+$, (c)[Eu(*D*-facam)$_3$·TMA·2OAc]$^-$ and (d)[Eu(*D*-facam)$_3$·2TMA·OAc]$^+$.

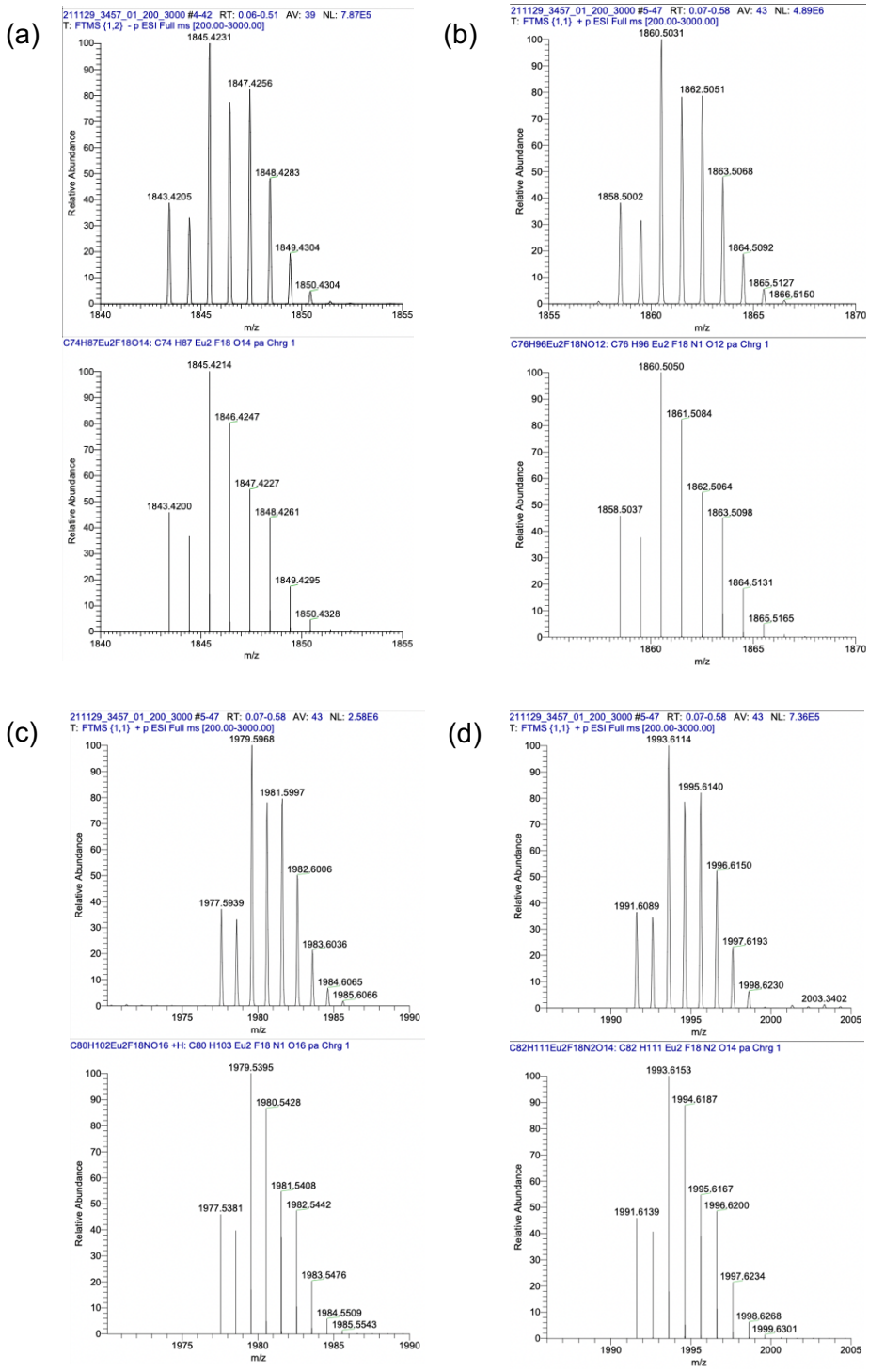

Figure S9. Experimental (top) and calculated (bottom) MS spectra of (a) [2Eu(*D*-facam)$_3$·OAc]$^-$, (b)[2Eu(*D*-facam)$_3$·TMA]$^+$, (c)[2Eu(*D*-facam)$_3$·TMA·2OAc]$^-$ and (d) [2Eu(*D*-facam)$_3$·2TMA·OAc]$^+$.

Reference

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