

Supplementary materials

X-ray excited luminescence of organo-lanthanide complexes

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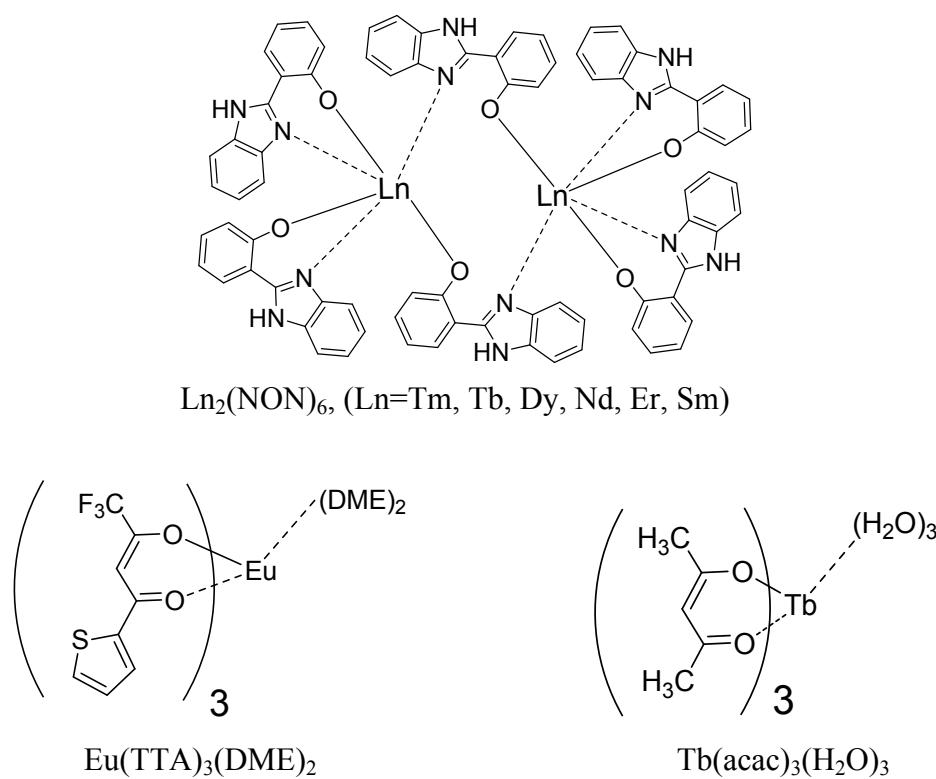


Fig. S1. Chemical structures of the organo-lanthanide complexes used in the study.

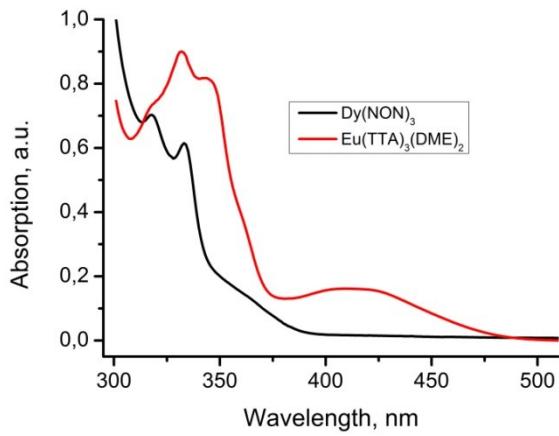


Fig. S2. Absorption spectra of $\text{Dy}(\text{NON})_3$ and $\text{Eu}(\text{TTA})_3(\text{DME})_2$ in THF solutions. The absorption spectra of $\text{Er}(\text{NON})_3$, $\text{Nd}(\text{NON})_3$, $\text{Tm}(\text{NON})_3$, $\text{Tb}(\text{NON})_3$ and $\text{Sm}(\text{NON})_3$ are identical to that of $\text{Dy}(\text{NON})_3$.

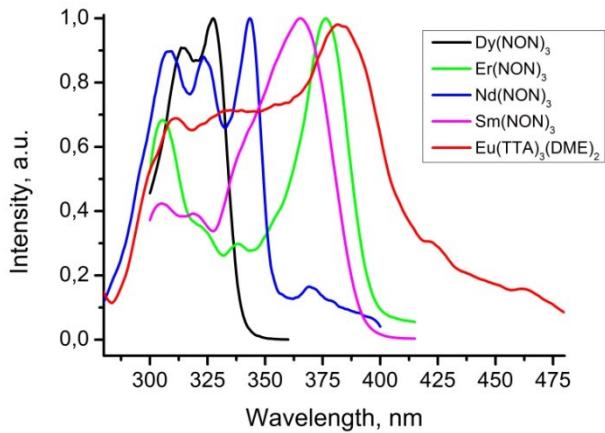


Fig. S3. PL excitation spectra of $\text{Dy}(\text{NON})_3$ (λ_{em} 460 nm), $\text{Er}(\text{NON})_3$ (λ_{em} 420 nm), $\text{Nd}(\text{NON})_3$ (λ_{em} 420 nm), $\text{Sm}(\text{NON})_3$ (λ_{em} 650 nm) and $\text{Eu}(\text{TTA})_3(\text{DME})_2$ (λ_{em} 615 nm) in THF solutions.

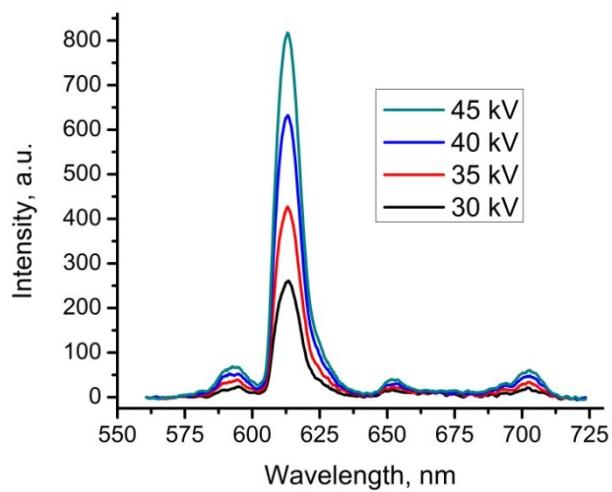
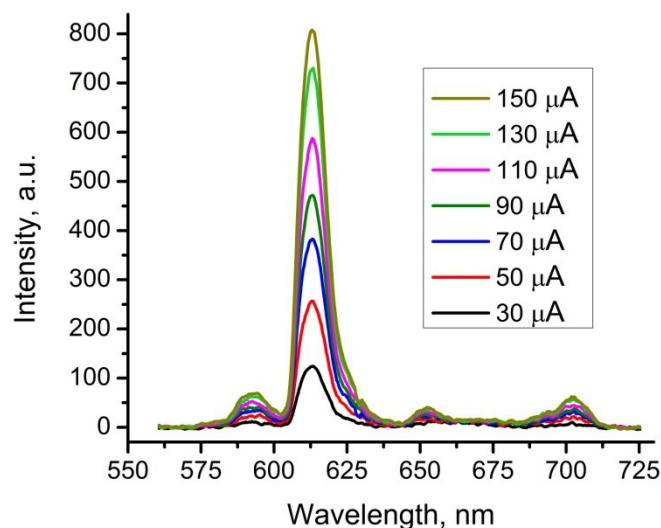


Fig. S4. Intensity of the band of ${}^5\text{D}_0 - {}^7\text{F}_2$ transition in the RL spectrum of $\text{Eu}(\text{TTA})_3(\text{DME})_2$ dependence on anode current and accelerating bias.