Supporting Information

Light modulation (Vis-NIR region) based on Lanthanide Complexes-Functionalized Carbon Dots

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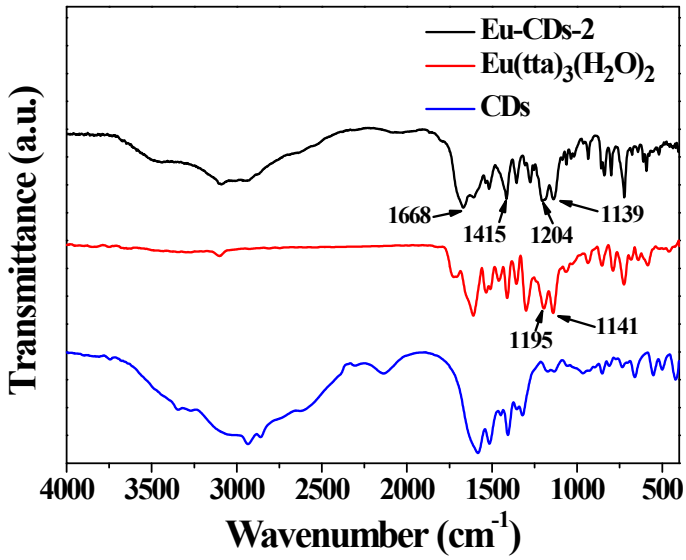


Fig. S1. The FT-IR spectra of Eu-CDs-2, $Eu(tta)_3(H_2O)_2$, and pure CDs.

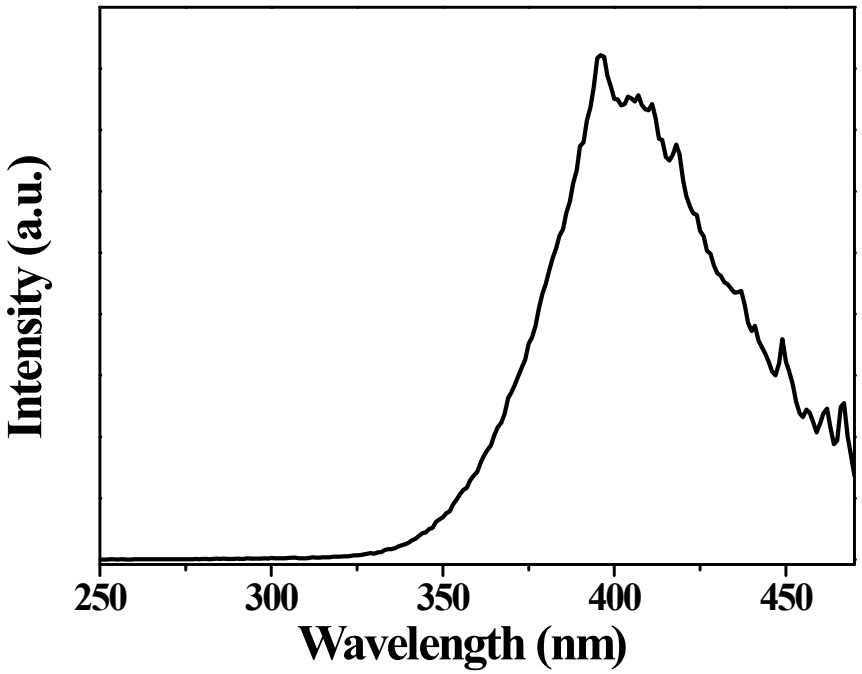


Fig. S2. The excitation spectrum of pure CDs in water (λ_{em} = 485 nm).

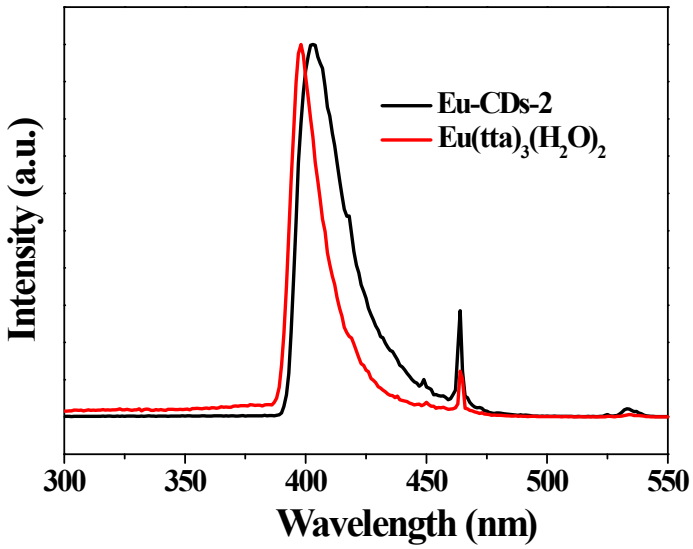
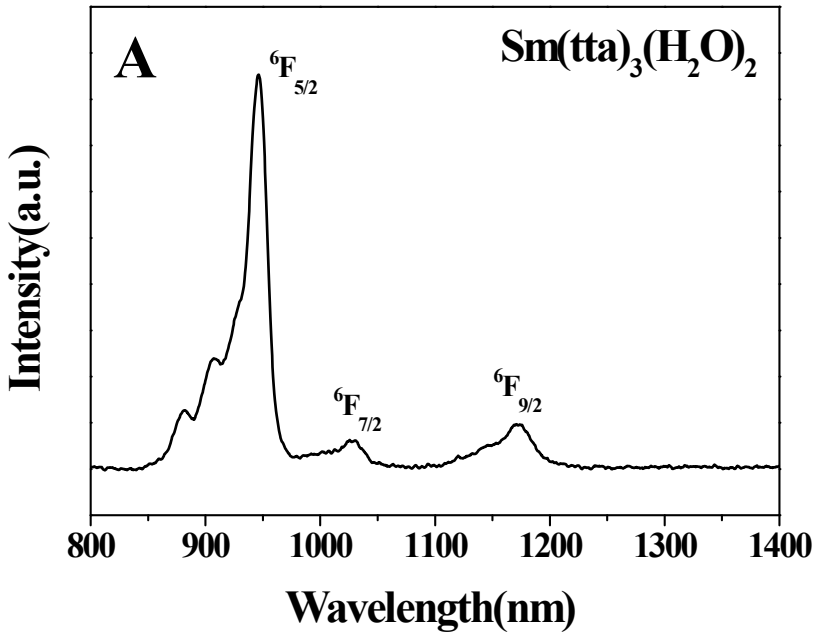
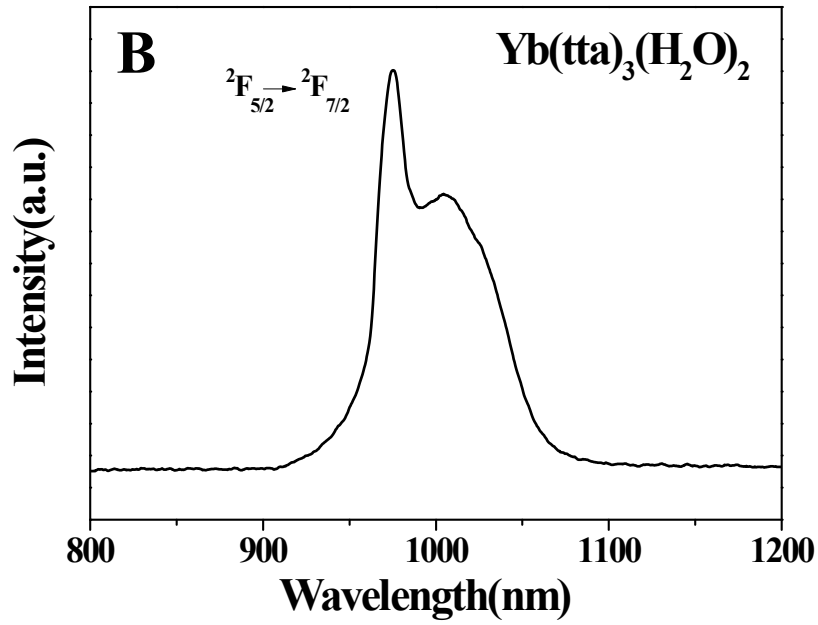


Fig. S3. The excitation spectra of $Eu(tta)_3(H_2O)_2$ and Eu-CDs-2 in ethanol solution (λ_{em} = 613 nm).


A
Sm(tta)3(H2O)2
6F5/2
6F7/2
6F9/2
Intensity(a.u.)
800
900
1000
1100
1200
1300
1400
Wavelength(nm)


B
Yb(tta)3(H2O)2
2F5/2 → 2F7/2
Intensity(a.u.)
800
900
1000
1100
1200
Wavelength(nm)

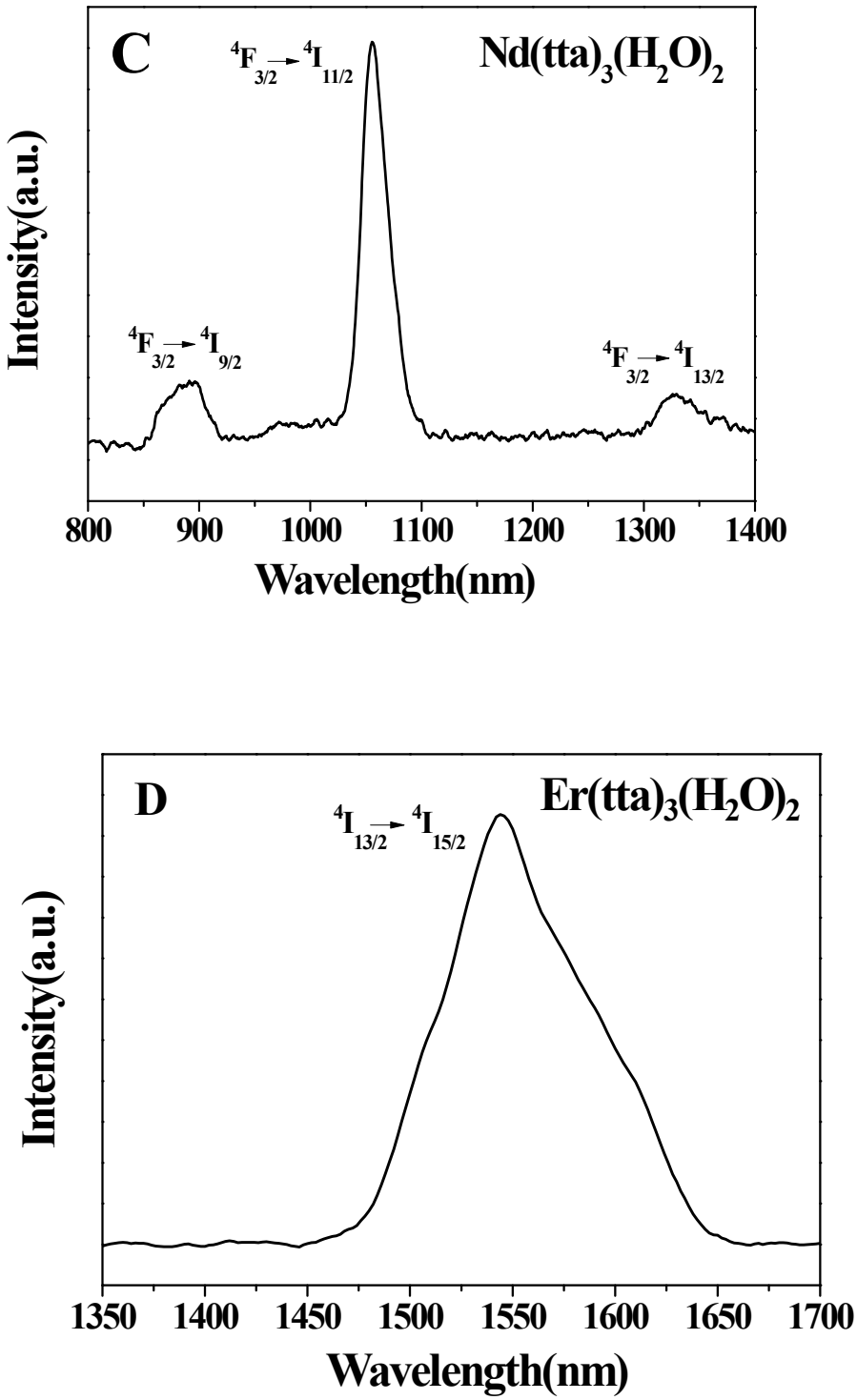


Fig. S4. The near-infrared emission spectra of $Sm(tta)_3(H_2O)_2$ complex (A), $Yb(tta)_3(H_2O)_2$ complex (B), $Nd(tta)_3(H_2O)_2$ complex (C), and $Er(tta)_3(H_2O)_2$ complex (D) (λ_{ex} = 405 nm).