Supporting Information

Covalent grafting of Eosin Y to the giant Keplerate {Mo_{132}} through an organosilicon linker in homogeneous regime

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Content

1. IR spectroscopy

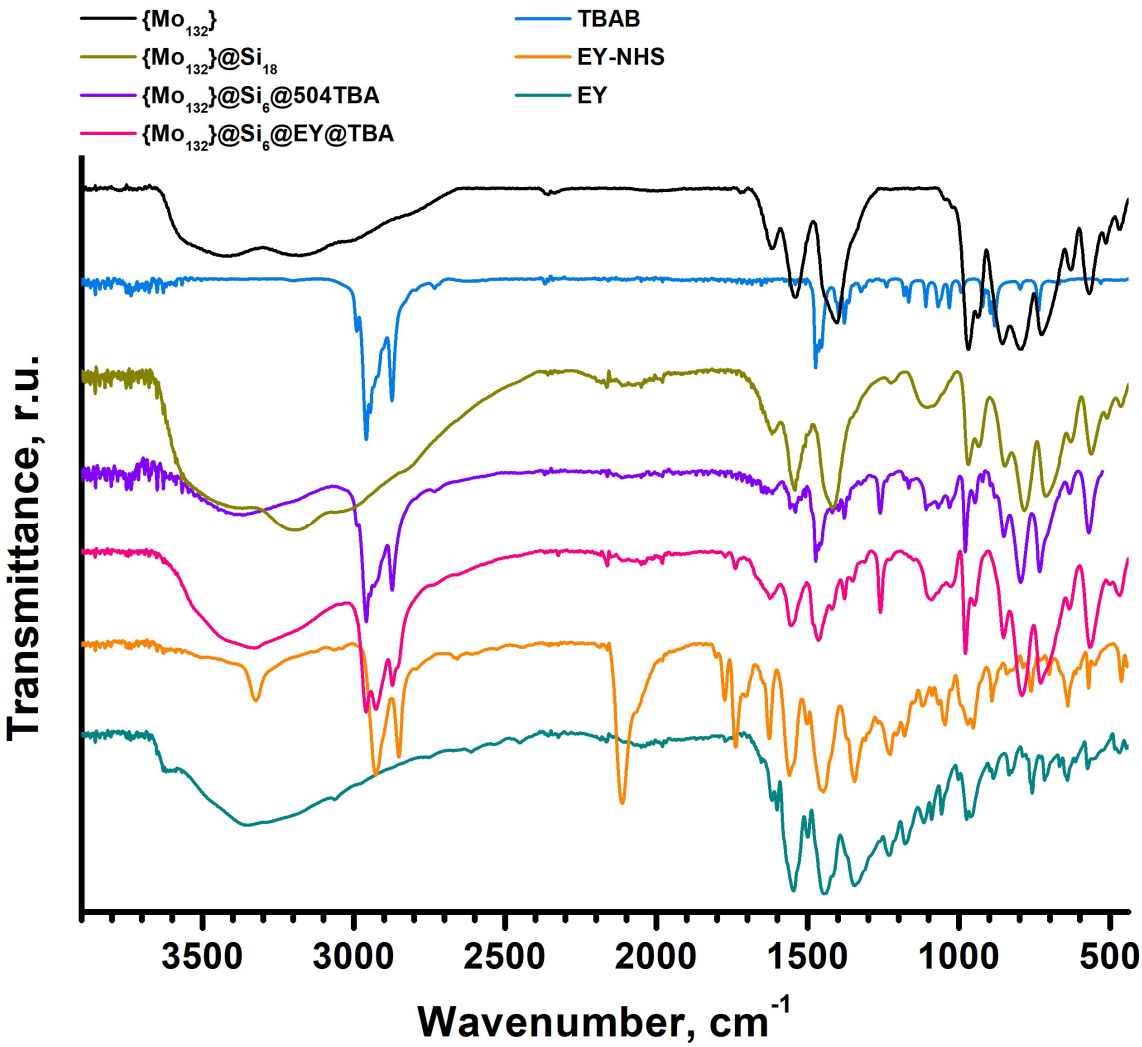

Figure S1. IR spectra measured in the ATR mode (from the bottom to the top): EY, EY-NHS, $\{Mo_{132}\}@Si_6@EY@TBA$, $\{Mo_{132}\}@Si_6@504TBA$, $\{Mo_{132}\}@Si_{18}$, TBAB, and $\{Mo_{132}\}$.

2. ^{1}H NMR, CD_3CN, 500 MHz

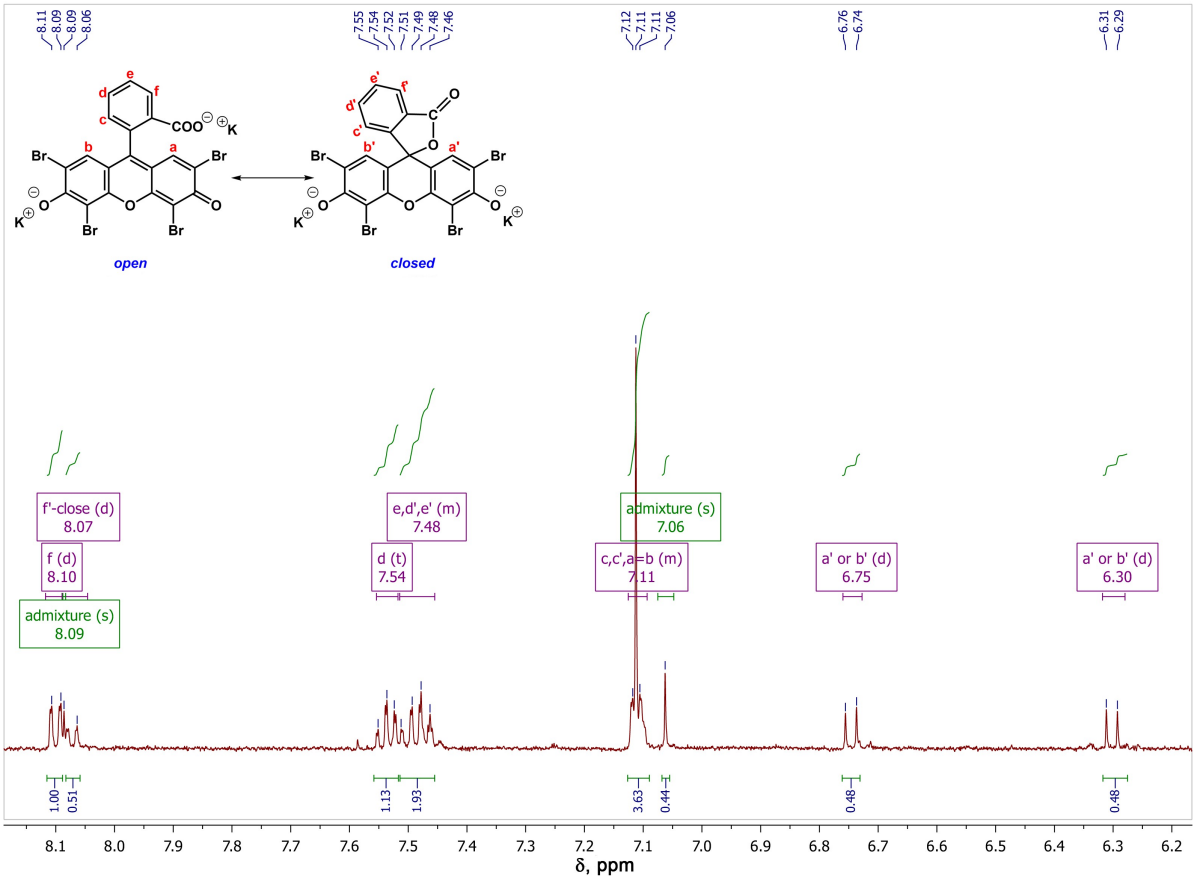

Figure S2. ^{1}H NMR spectrum (in CD_3CN) of the EY dipotassium salt.

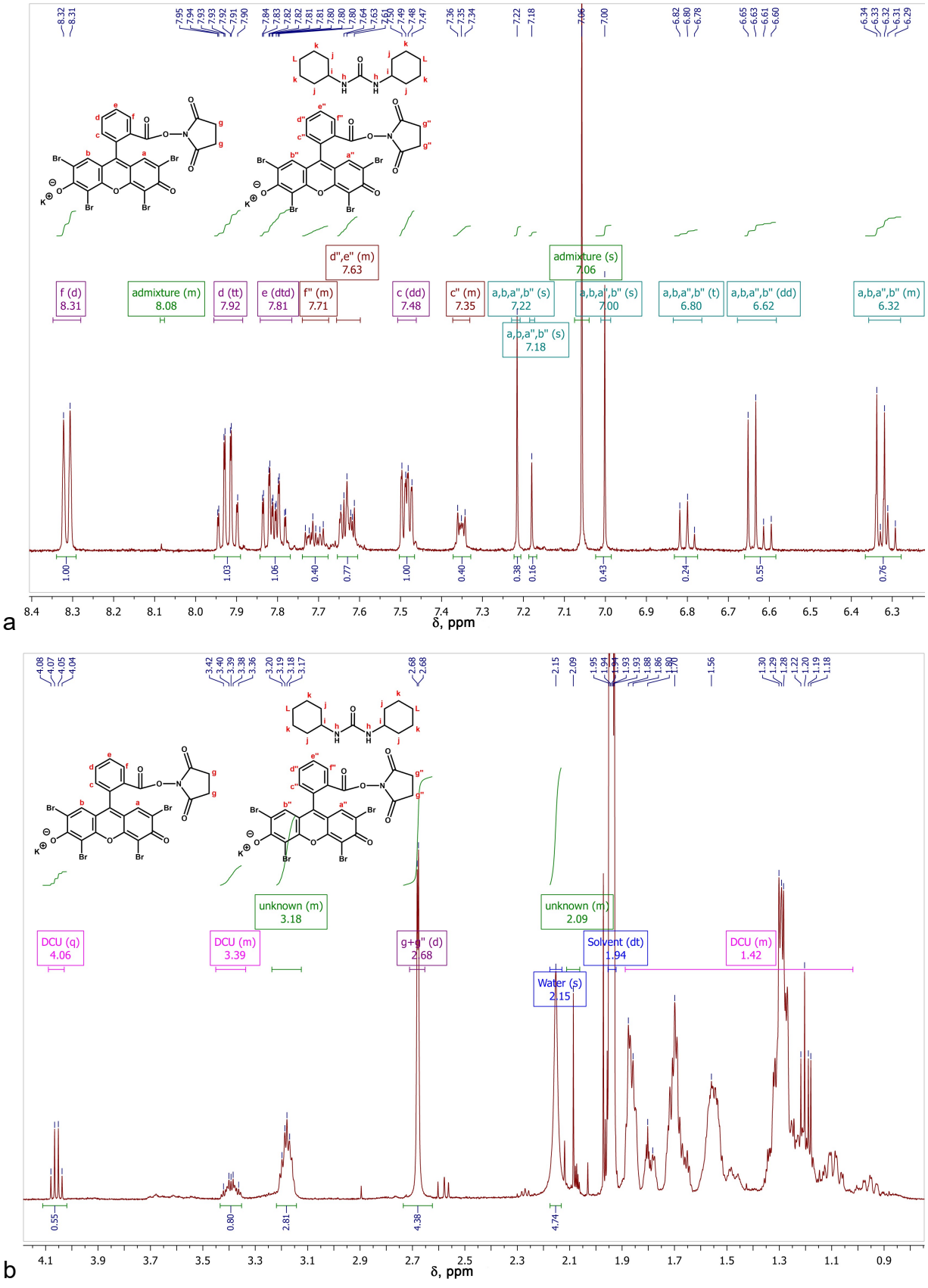

Figure S3. ^{1}H NMR spectrum (in CD_3CN) of the EY-NHS potassium salt.

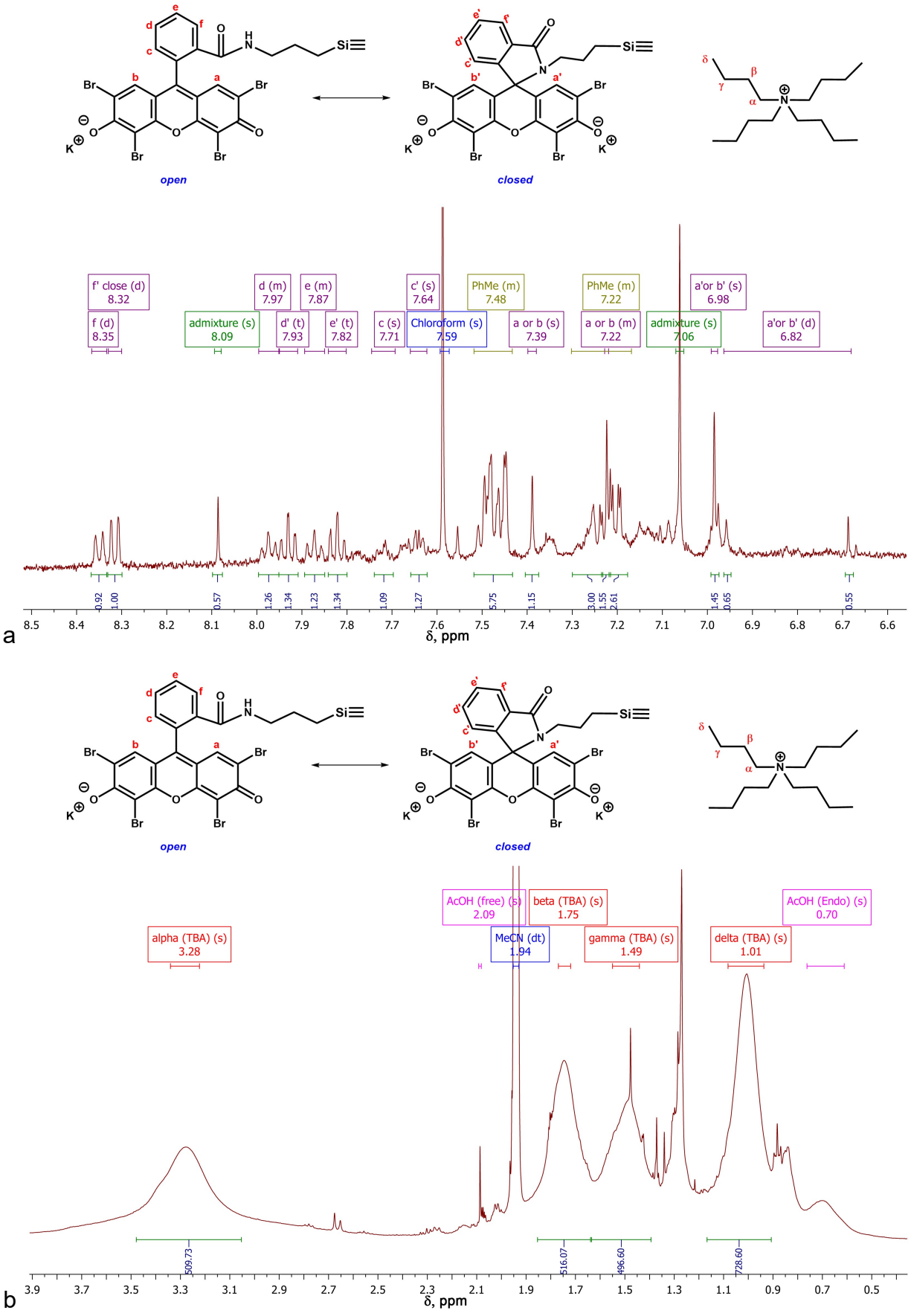

Figure S4. ^{1}H NMR spectrum (in CD_3CN) of the {Mo_{132}}@Si_6@EY@TBA.

3. UV-Vis, Fluorescence

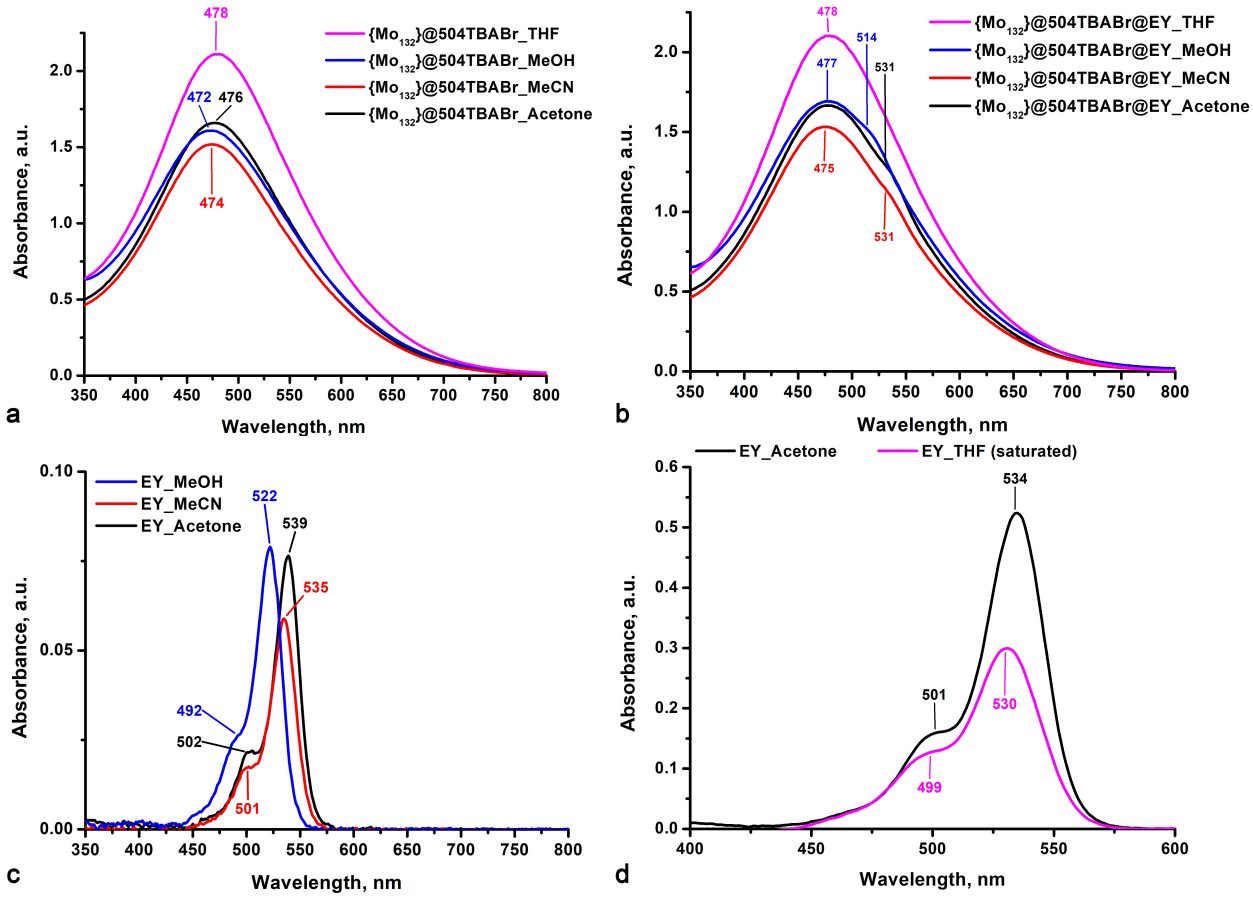

Figure S5. (a) UV-Vis spectra of TBA salt of {Mo132} produced through extraction to chloroform contained 504 fold molar excess of TBABr – {Mo132}@504TBA – in series of organic solvents; **(b)** UV-Vis spectra of equimolar mixture of {Mo132}@504TBA and EY in series of organic solvents; **(c, d)** UV-Vis spectra of EY (constant concentration) in series of organic solvents. In (d) the EY concentration is the same for acetone and THF solution.

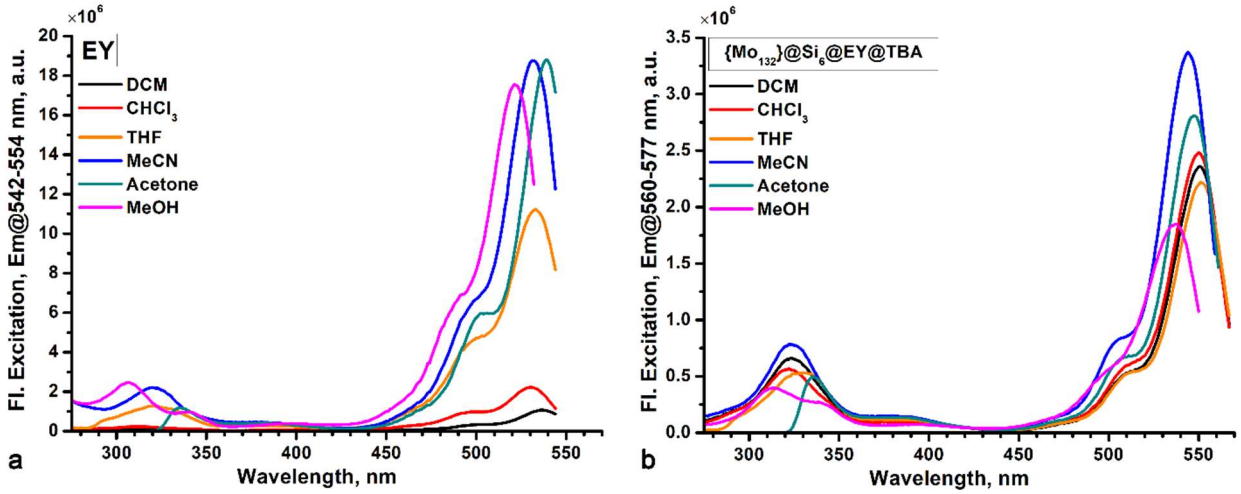

Figure S6. The fluorescence excitation spectra of EY and {Mo132}@Si6@EY@TBA measured in series of organic solvents.

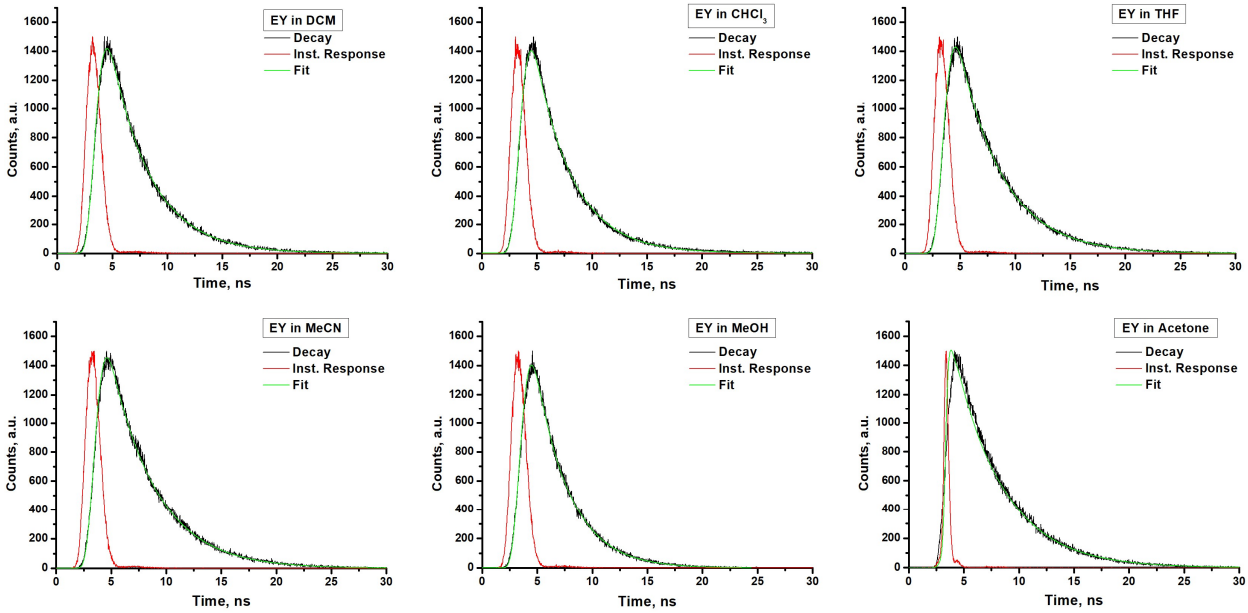

Figure S7. Time-resolved fluorescence decay spectra of EY in series of organic solvents.

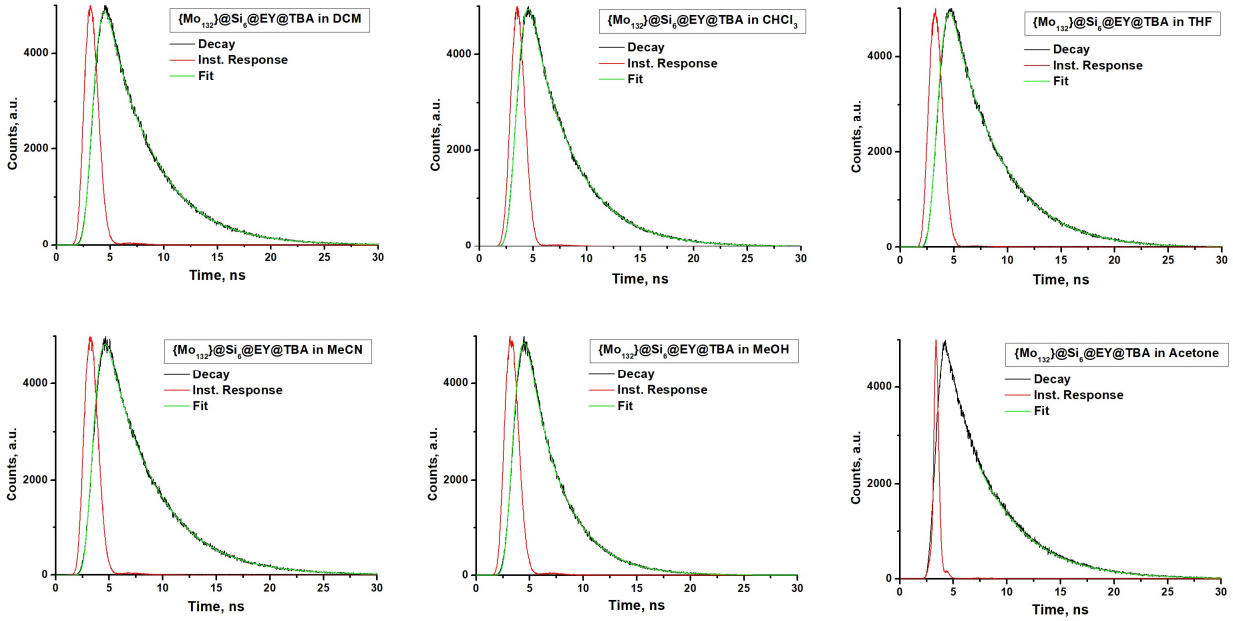

Figure S8. Time-resolved fluorescence decay spectra of {Mo_{132}}@Si_6@EY@TBA in series of organic solvents.