Supporting Information (SI)

A Highly Sensitive, Single Selective, Real-Time, and "Turn-On" Fluorescent Sensor for Al^{3+} Detection in Aqueous Media

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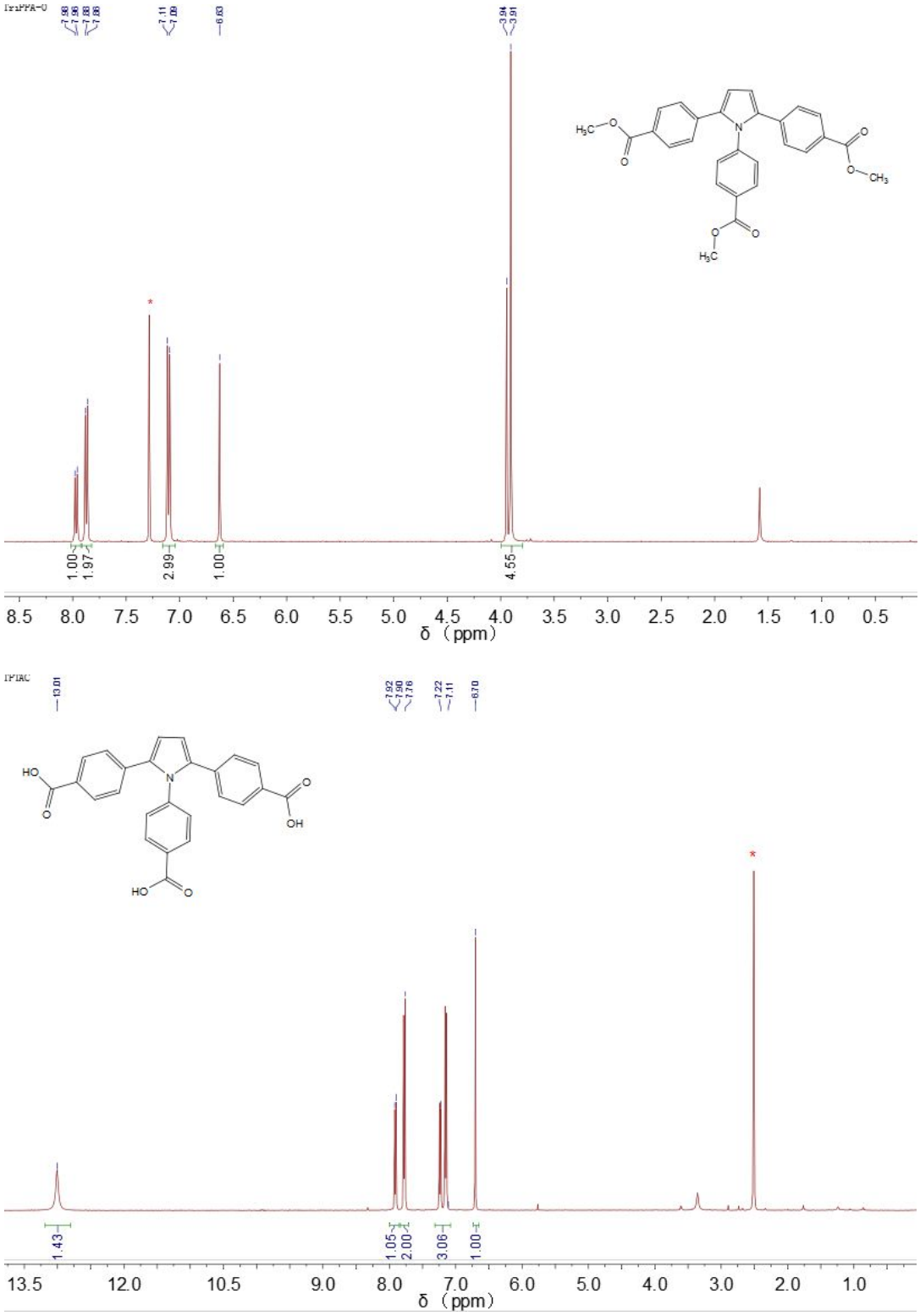

Figure S1. ^{1}H-NMR spectra of Py(PhCOOCH$_3$)$_3$ and Py(PhCOOH)$_3$

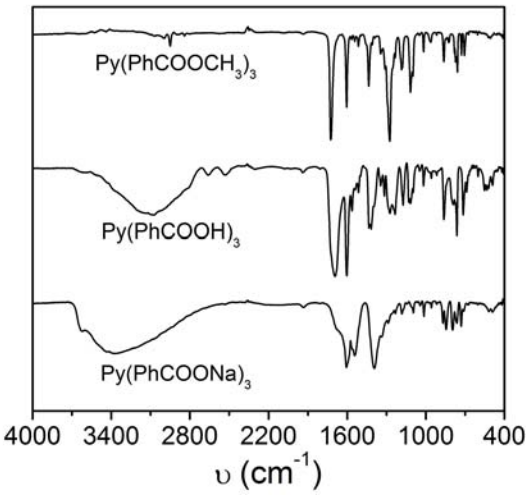

Figure S2.IR spectra of $Py(PhCOOCH_3)_3$, $Py(PhCOOH)_3$, and $Py(PhCOONa)_3$

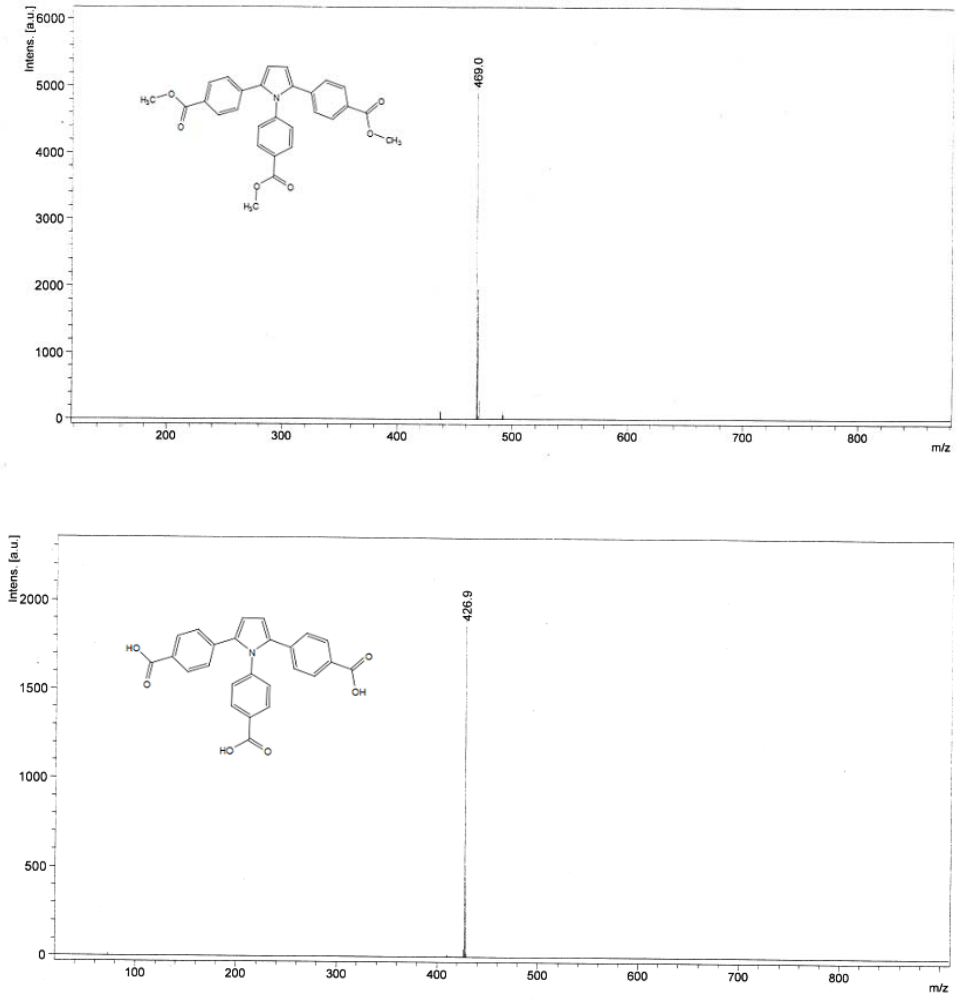

Figure S3. MS spectra of $Py(PhCOOCH_3)_3$and $Py(PhCOOH)_3$

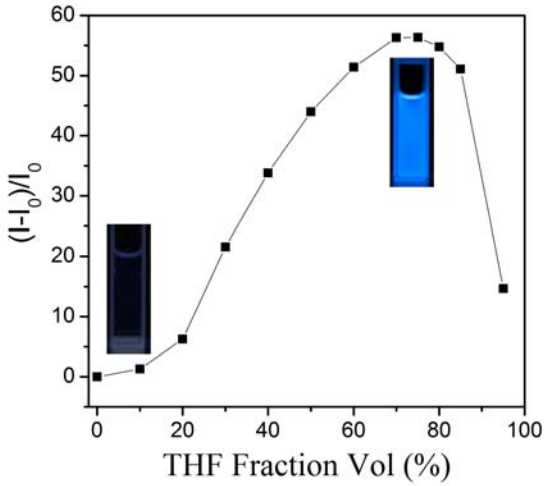

Figure S4. Emission intensities of Py(PhCOO$^-$)$_3$ (10 μM) *vs* THF contents in H_2O/THF mixtures.

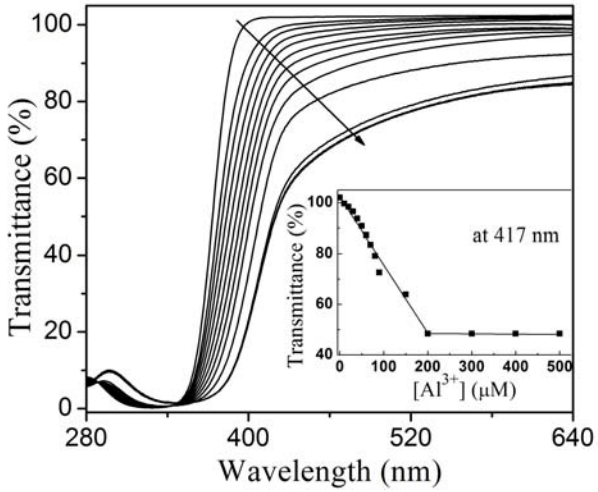

Figure S5. Transmittance changes of Py(PhCOONa)$_3$(100 μM) in water/THF (96/4, v/v) mixtureupon titration of Al^{3+}. The [Al^{3+}] total increased from 0 μM to 500 μM along the direction of the arrow.

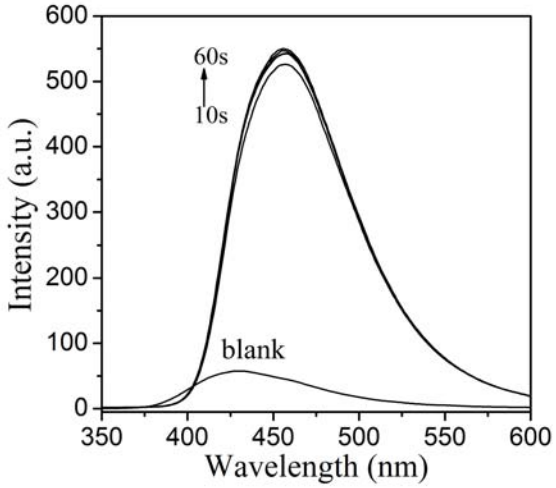

Figure S6. Fluorescent spectra of Py(PhCOONa)$_3$ (100 μM) in water/THF (96/4, v/v) mixture in the presence of 500 μM Al^{3+} at different times.