Supporting Information for

Copolymer of 4-trimethylsilyl diphenyl acetylene and 1-trimethylsilyl-1-propyne: Polymer synthesis and luminescent property adjustment

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Content

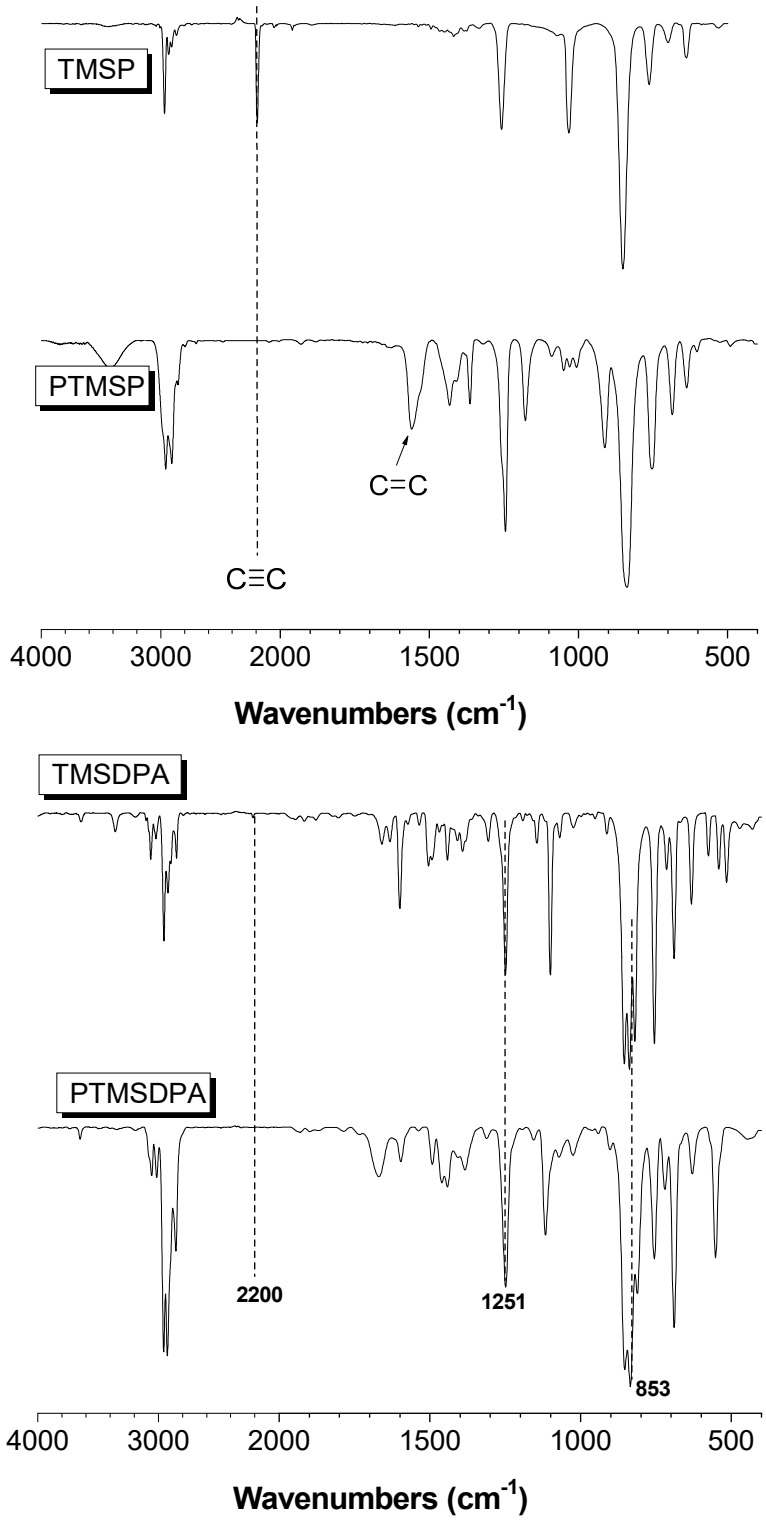

Figure S1. FTIR spectra of TMSP, PTMSP, TMSDPA and PTMSDPA in KBr pellets.

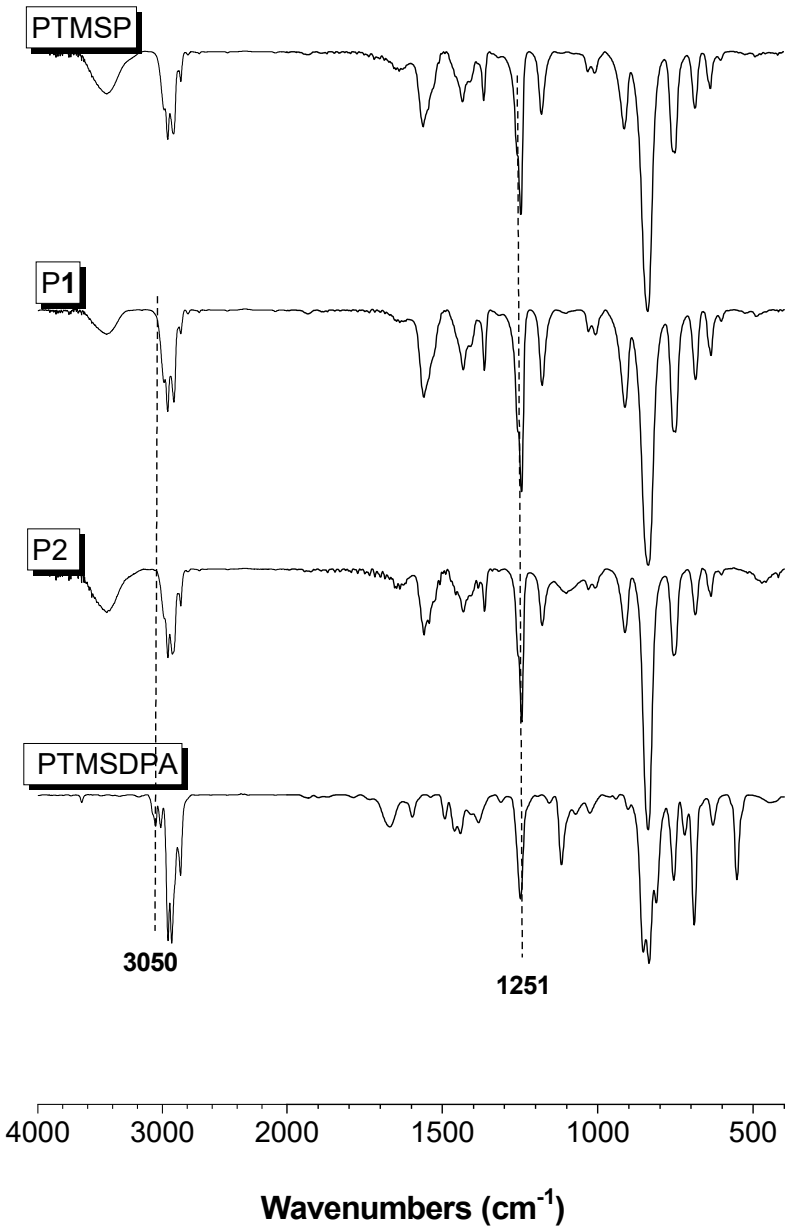

Figure S2. FTIR spectra of PTMSP, P**1**, P**2** and PTMSDPA in KBr pellets.

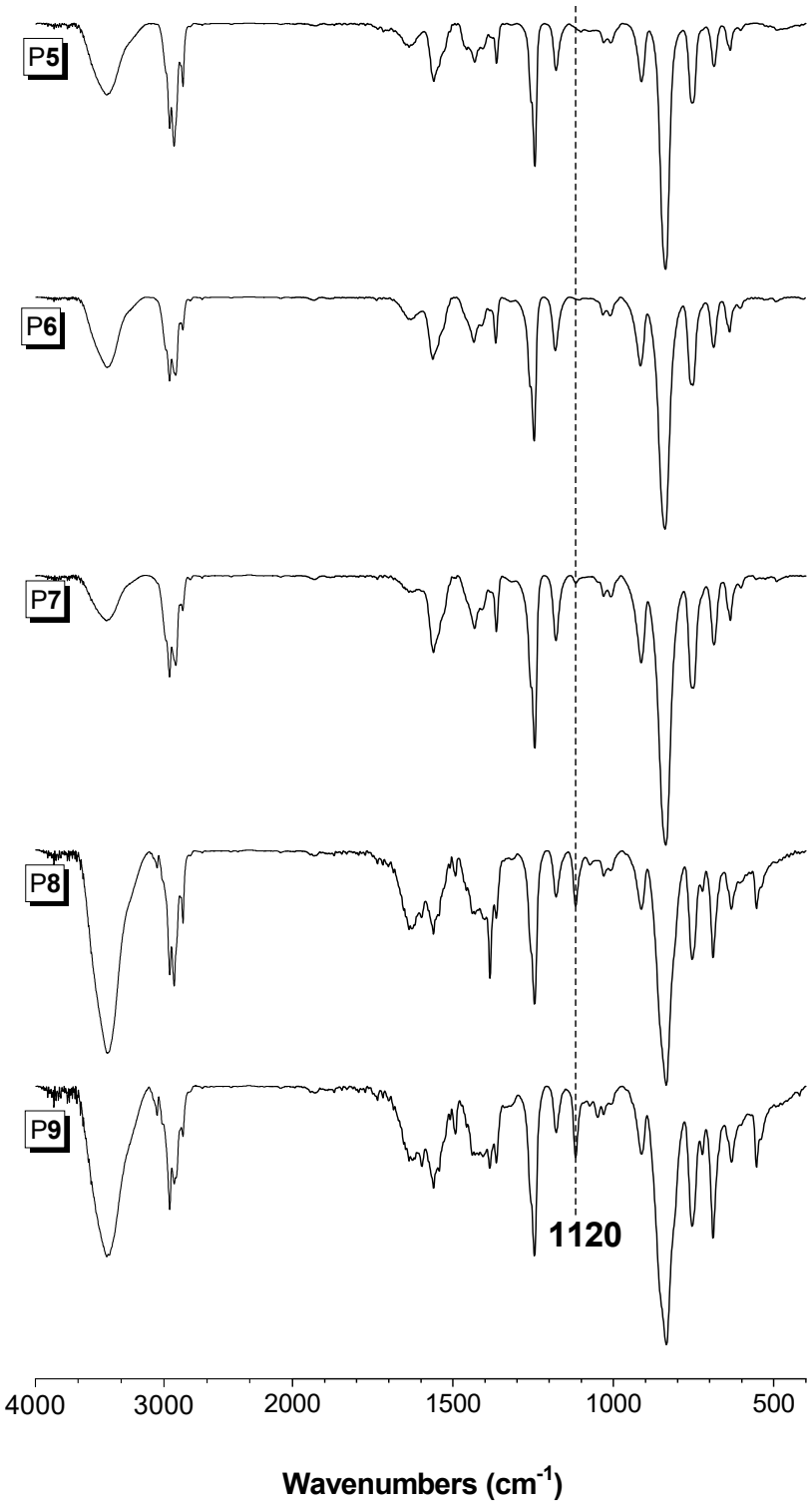

Figure S3. FTIR spectra of P**5**, P**6**, P**7**, P**8** and P**9** in KBr pellets.

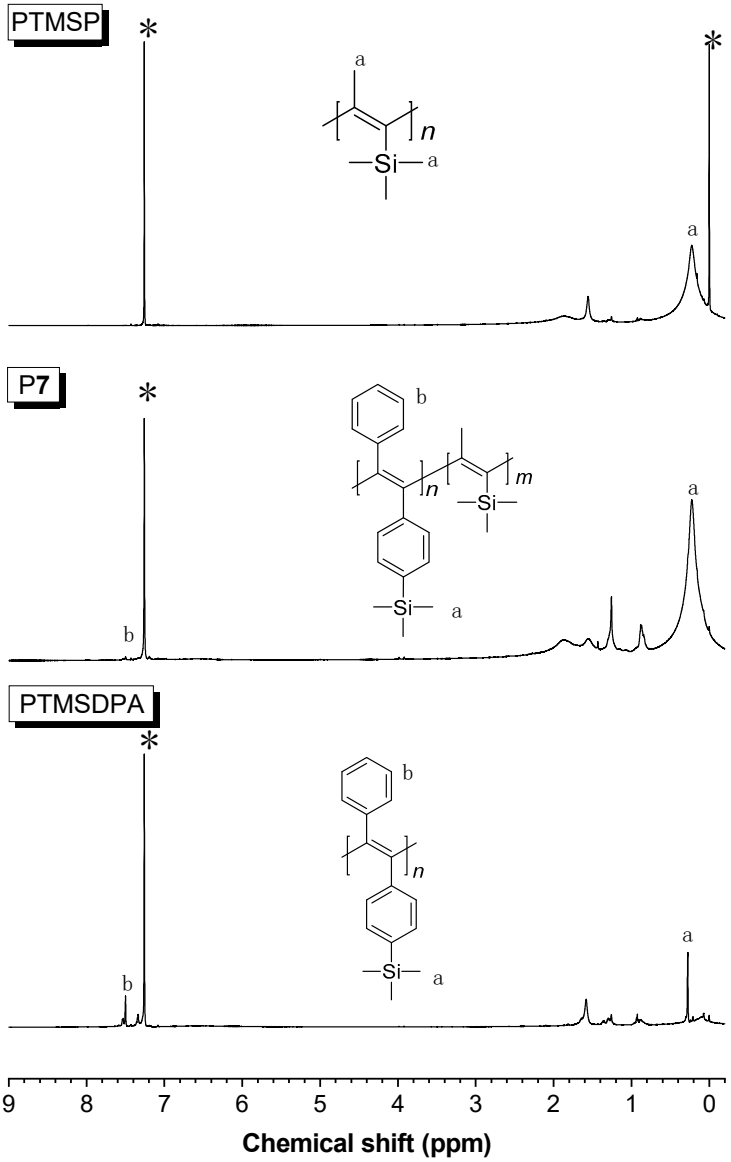

Figure S4. ^{1}H NMR spectra of PTMSP, P**7** and PTMSDPA ($CDCl_3$). The asterisks represent solvent peaks.

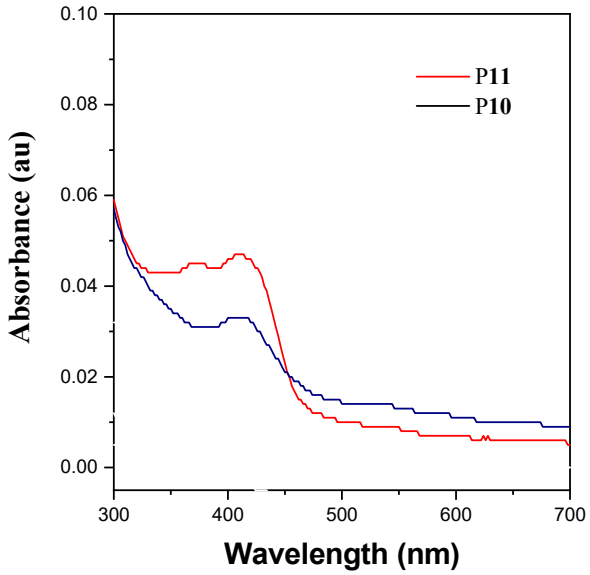

Figure S5. UV-vis spectra of **P10** and **P11** in THF solution with concentration of 10 μM.

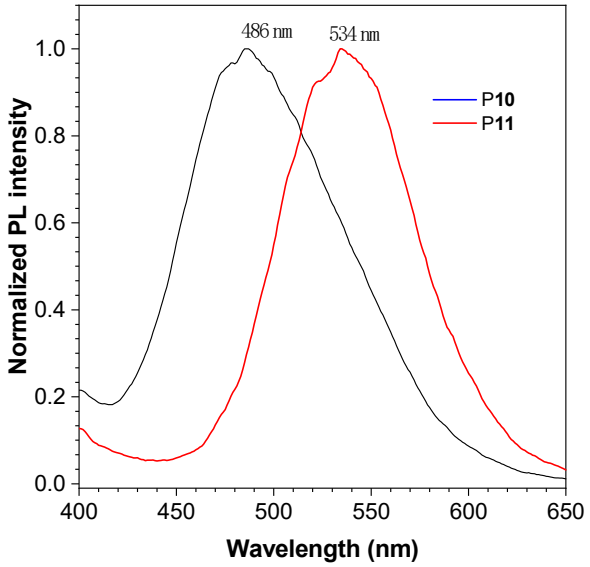

Figure S6. PL spectra of P**10** and P**11** powders. λ_{ex} = 375 nm.

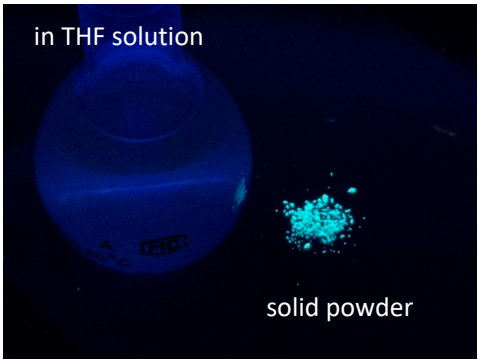

Figure S7 Fluorescence photos of P**6** in THF solution (10^{-3} M) and powder under 365nm light.

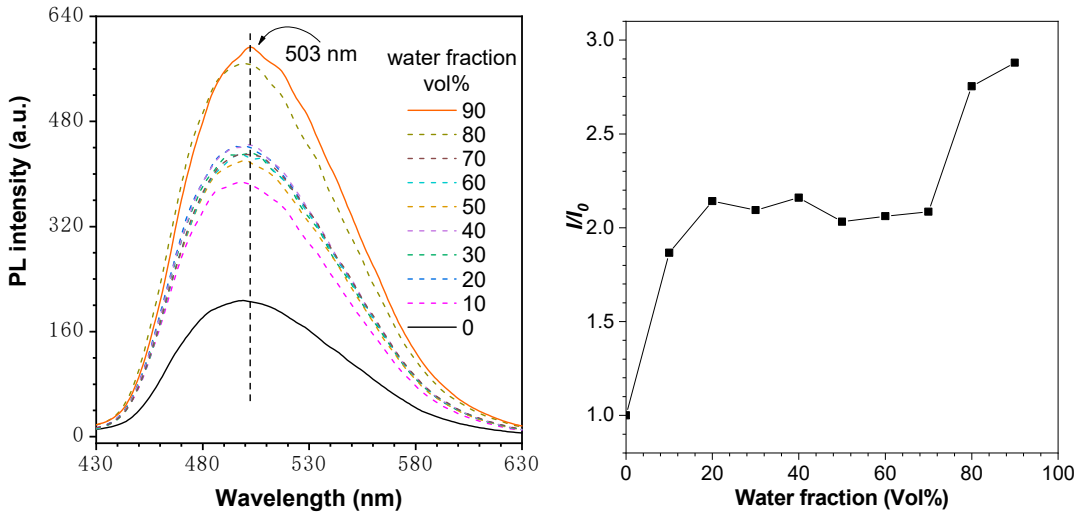

Figure S8. (Left) PL behavior of P**7** in THF/water mixtures with different water fractions (f_w). (Right) Plot of peak intensity of P**7** in THF/water mixtures with different water fractions. I_0 = Peak intensity of P**7** when f_w = 0; I = Peak intensity of P**7** when $f_w \neq 0$. λ_{ex} = 375 nm, Concentration = 100 μM.

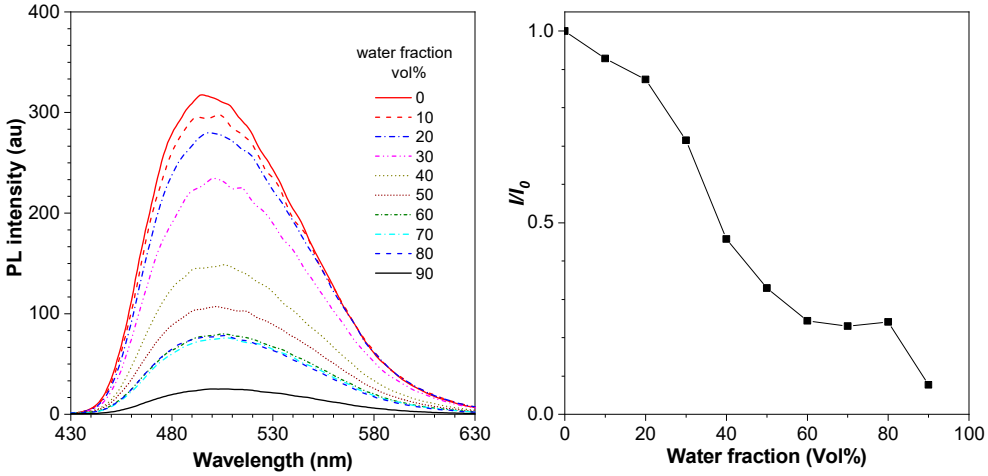

Figure S9. (Left) PL behavior of PTMSDPA in THF/water mixtures with different water fractions (f_w). (Right) Plot of peak intensity of PTMSDPA in THF/water mixtures with different water fractions. I_0 = Peak intensity of PTMSDPA when f_w = 0; I = Peak intensity of PTMSDPA when $f_w \neq 0$. λ_{ex} = 375 nm, Concentration = 100 μM.

Table S1. The quantum yield for the suspensions of PTMSDPA, P**6** and P**7** [a] .

Samples	Water fraction (%)	QY(%)
PTMSDPA	0	21.5
PTMSDPA	90	28.3
P**6**	0	-
P**6**	90	20.8
P**7**	0	24.9
P**7**	90	17.8

[a] QY = quantum yield. [M] = 100 μM. λ_{ex} = 375 nm.