

**Synthesis and highly sensitive detection of water content in THF
using a novel solvatachromic AIE polymer containing
diketopyrrolopyrrole and triphenylamine**

Lingyun Wang *, Lingling Yang, Derong Cao

School of Chemistry and Chemical Engineering, South China University of
Technology, Guangzhou, China, 510640

*Corresponding author: Tel. +86 20 87110245; fax: +86 20 87110245. E-mail:

lingyun@scut.edu.cn

Figure captions

Fig. S1. ^1H NMR spectrum (a), ^{13}C NMR spectrum (b) and Mass spectrum (c) of **Monomer 1**.

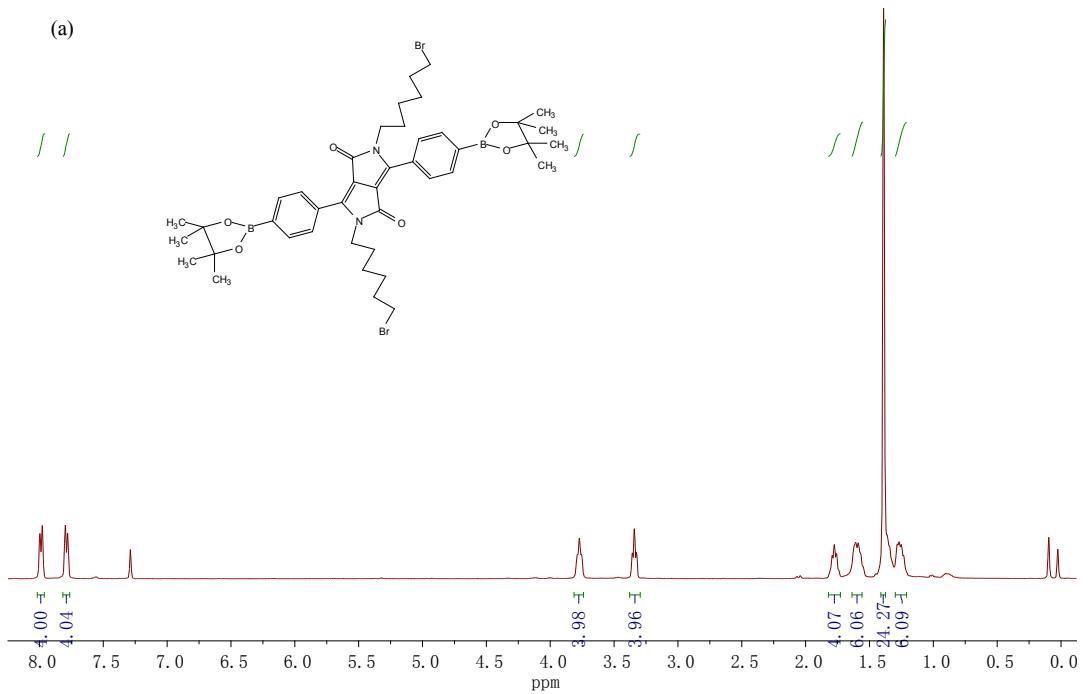
Fig. S2 ^1H NMR spectrum (a), ^{13}C NMR spectrum (b) and Mass spectrum (c) of **Monomer 2**

Fig. S3 UV-vis spectra of **N1** in DMF and DMF/H₂O (9/1).

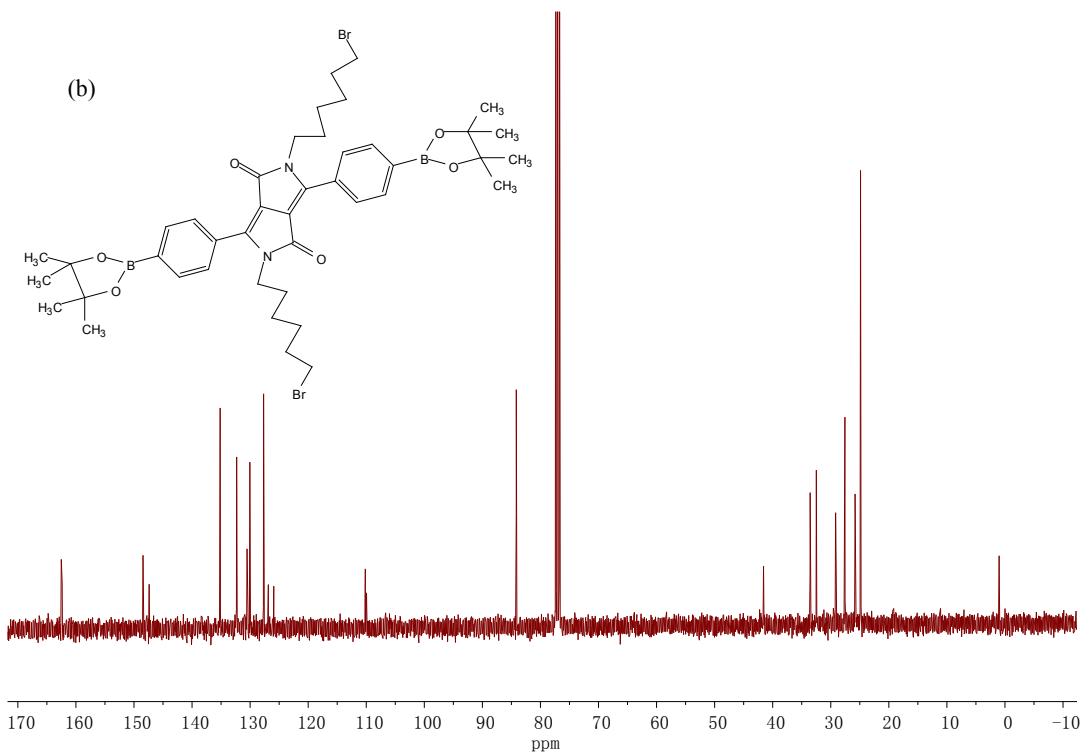
Fig. S4 UV-vis spectra of **N1** in THF and THF/H₂O.

Fig.S5 UV-vis spectra of **P1** (20 μM) in the presence and absence of BSA in DMSO/PBS mixture (1:1, v/v).

(a)



(b)



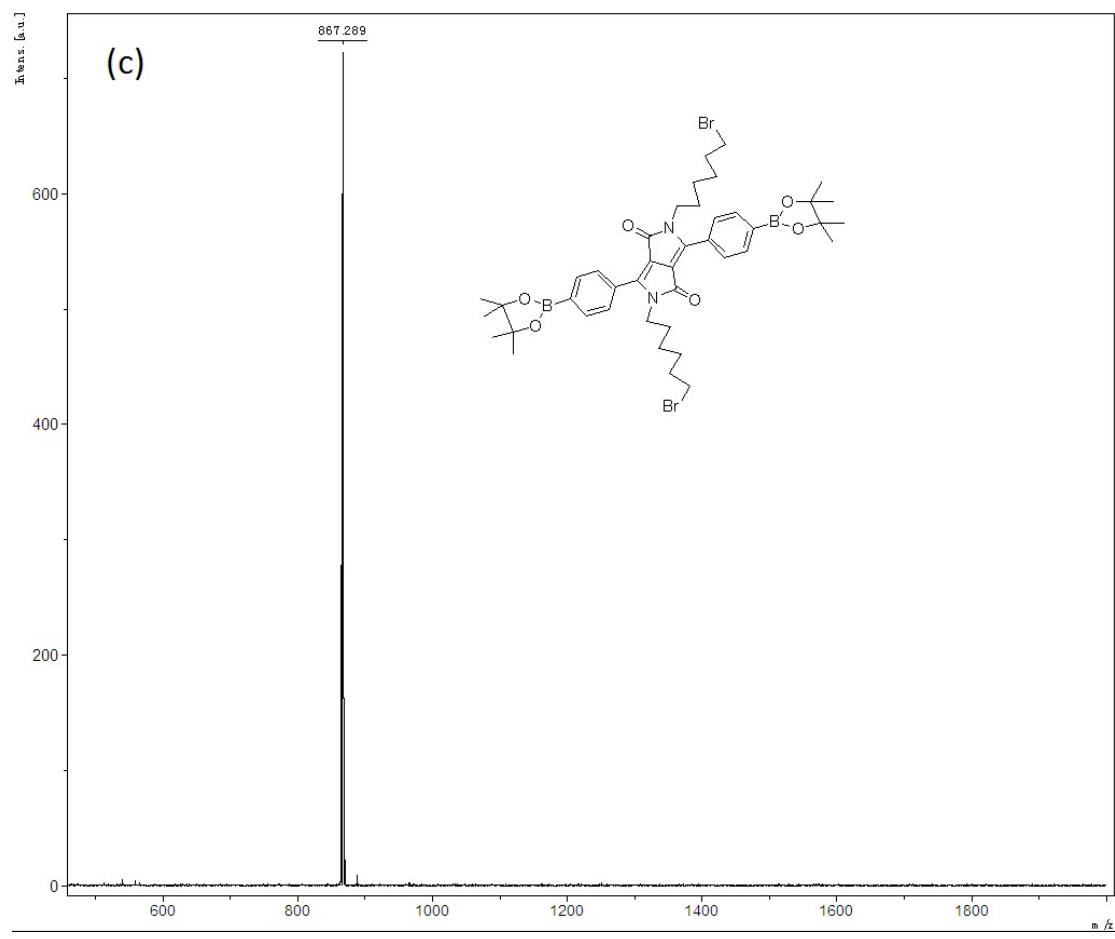
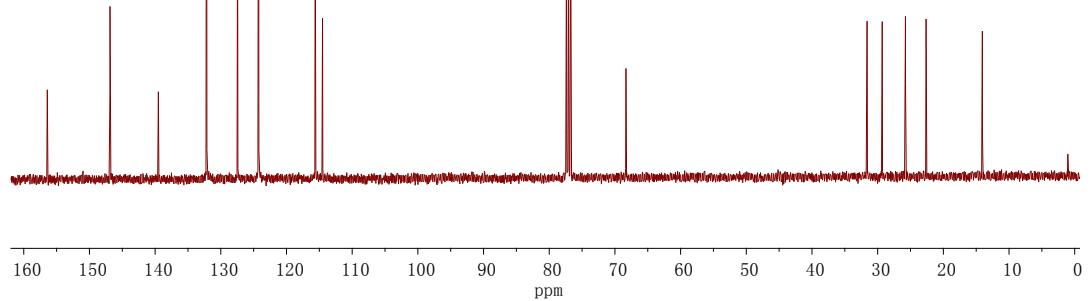
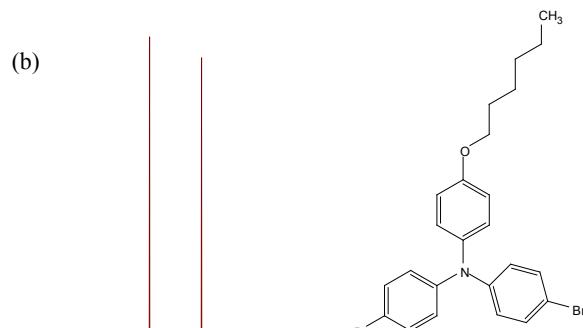
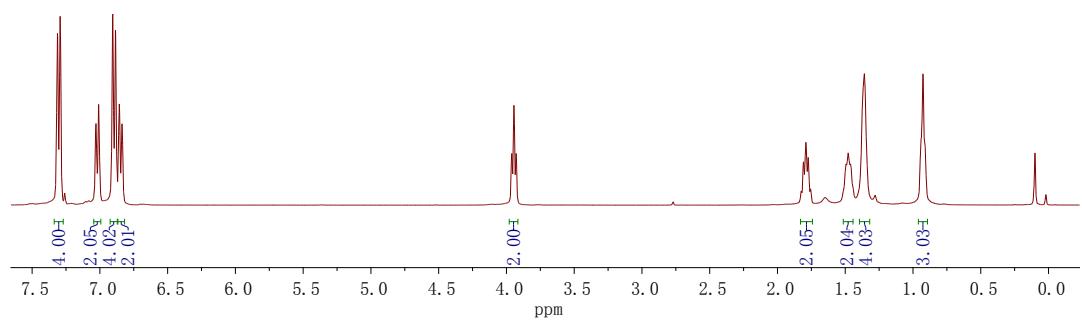
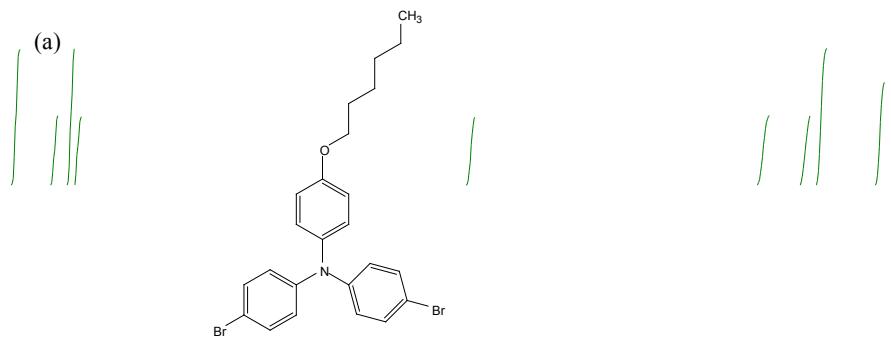


Fig. S1. ^1H NMR spectrum (a), ^{13}C NMR spectrum (b) and Mass spectrum (c) of **Monomer 1**.



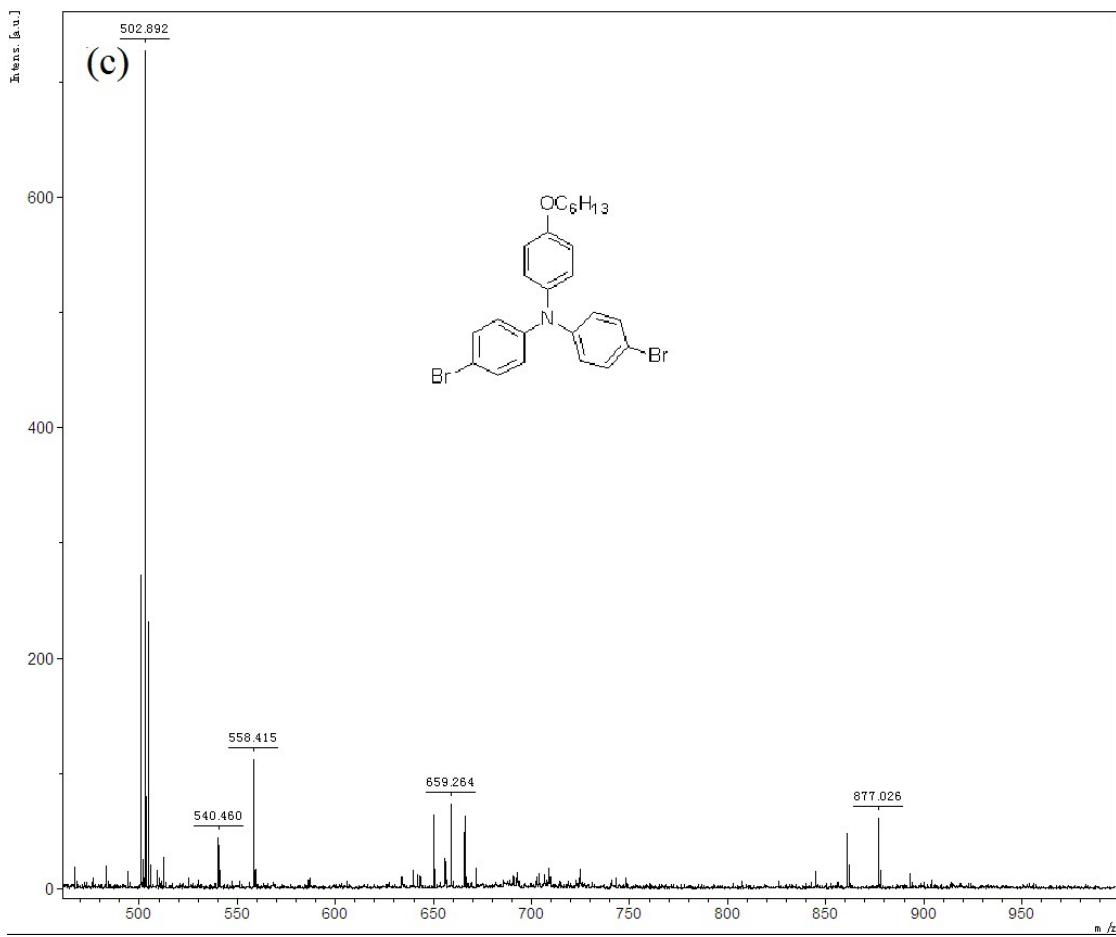


Fig. S2 ^1H NMR (a), ^{13}C NMR (b) and Mass spectra (c) of **Monomer 2**

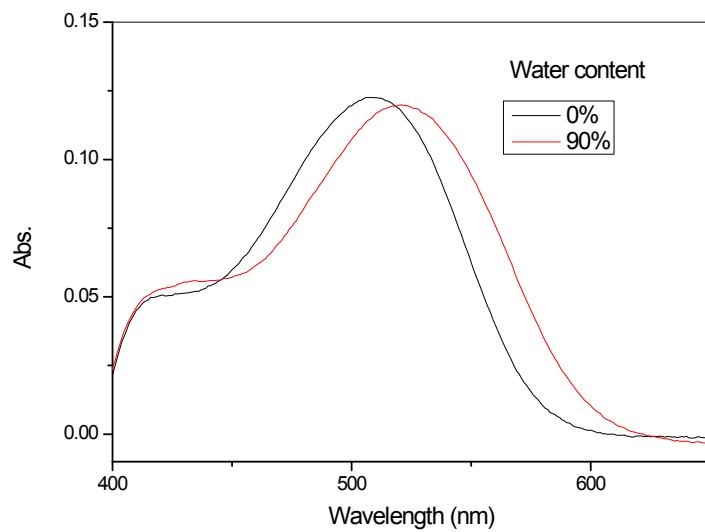


Fig. S3 UV-vis spectra of **N1** in DMF and DMF/H₂O (9/1).

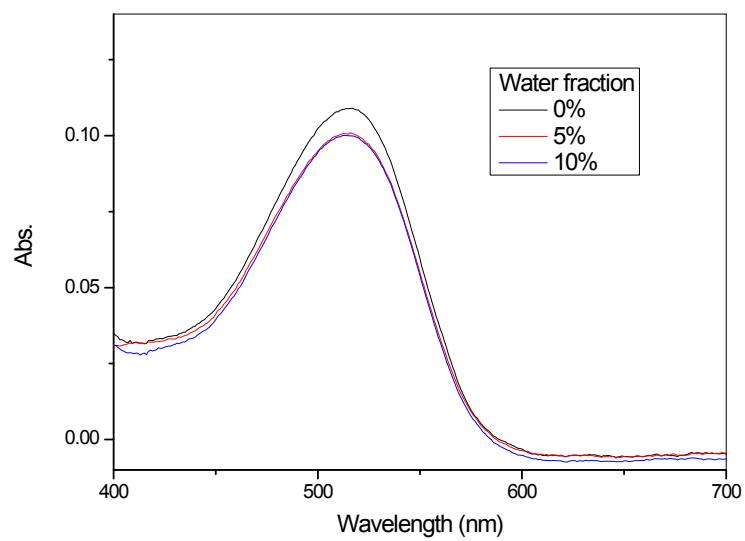


Fig. S4 UV-vis spectra of **N1** in THF and THF/H₂O

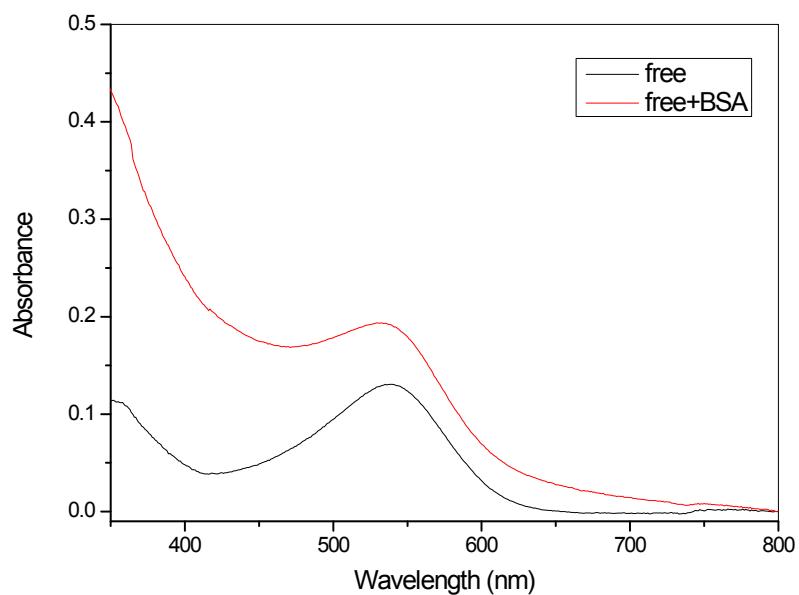


Fig.S5 UV-vis spectra of **P1** (20 μ M) in the presence and absence of BSA in DMSO/PBS mixture (1:1, v/v).