

Supporting Information for:

Novel Polyphenylenes Containing Phenol Substituted Oxadiazole Moieties as Fluorescent Chemosensors for Fluoride Ion

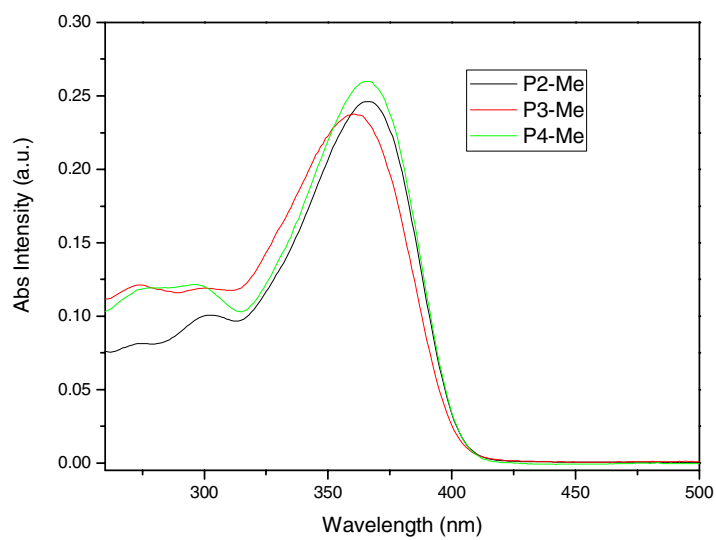
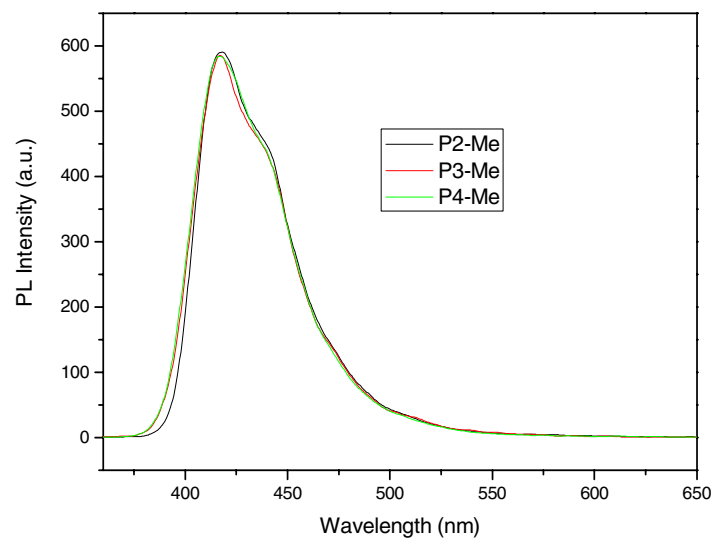
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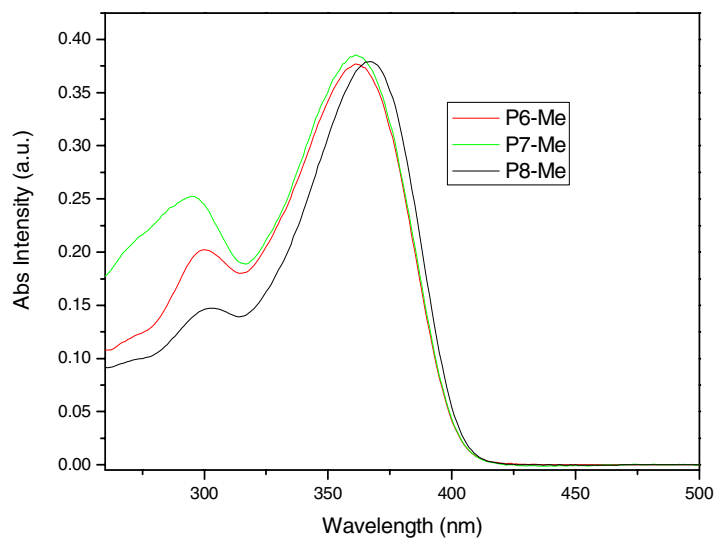
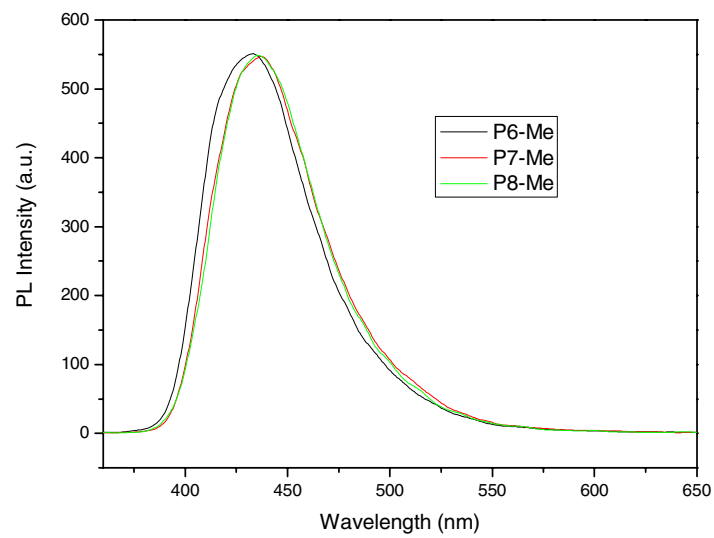
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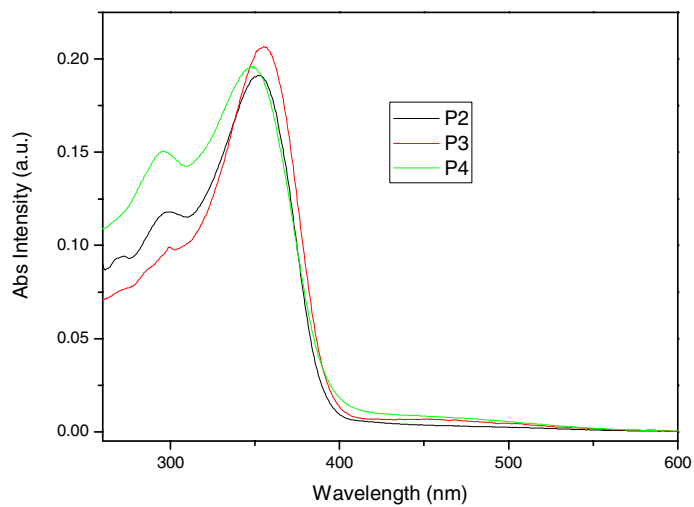
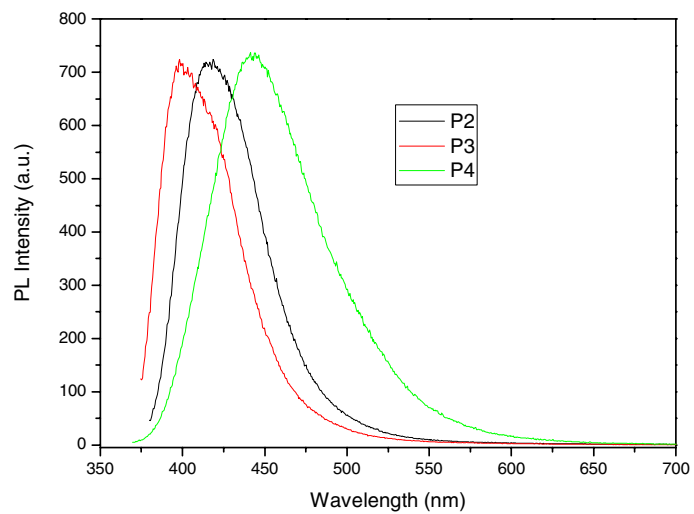
1. Fluorescence and absorption spectra of polymers **P2-P4** before their demethylation.



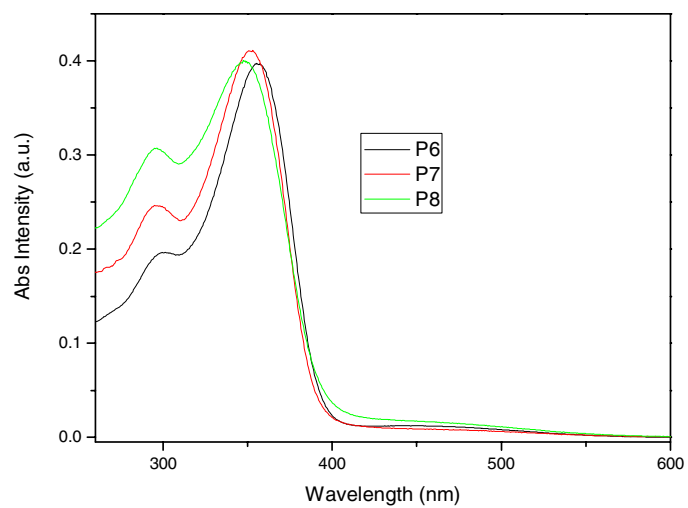
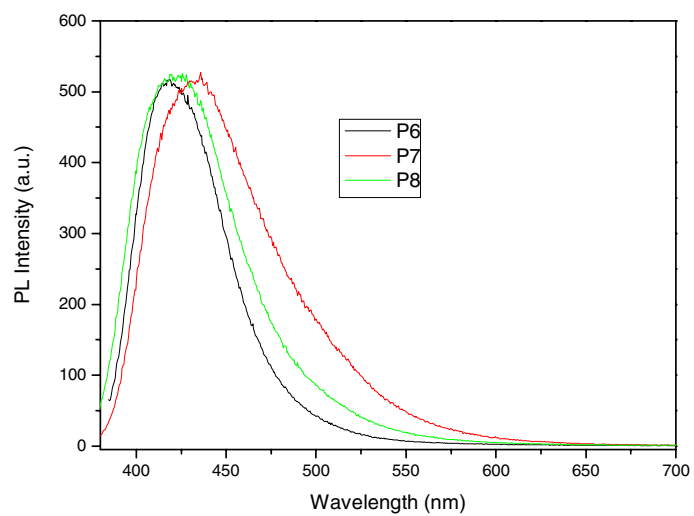
2. Fluorescence and absorption spectra of polymers **P6-P8** before their demethylation.



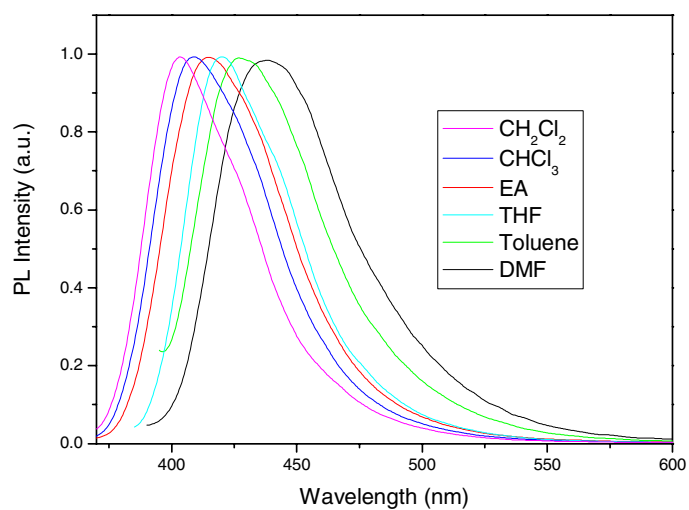
3. Fluorescence and absorption spectra of polymers **P2-P4** (5 μ M) in chloroform



4. Fluorescence and absorption spectra of polymers **P6-P8** (5 μ M) in chloroform



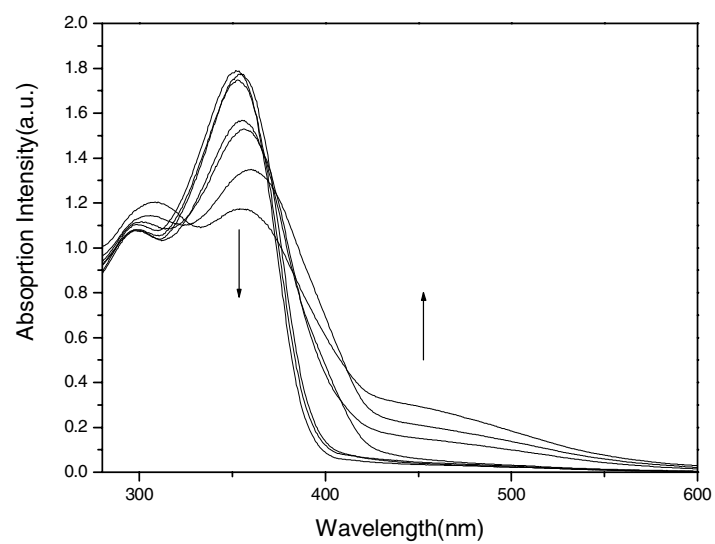
5. Fluorescence spectra of polymer **P3** (5 μ M) in different solvents



6. Fluorescence titration-general procedure:

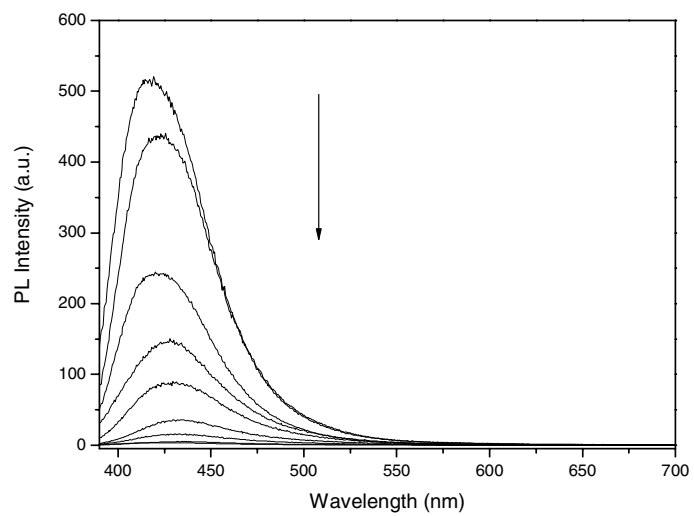
Fluorescence spectra were obtained on a Perkin-Elmer LS 50B luminescence spectrometer with Xenon discharge lamp excitation. Measurements of Ultraviolet-Visible absorption spectra were carried out on Perkin-Elmer Lambda 35 UV/Vis spectrometer. Solution of polymers **P1-P10** were dilute at a concentration of 5×10^{-6} M (the concentration of polymers is based on the moles of the repeated unit) in CHCl_3 . Solutions of tetrabutylammonium anionic salts with the concentration of typically 1×10^{-3} M were prepared by successive dilution. Fluorescence titration was carried out by sequentially adding 0.1 mL aliquots of anions solutions in CHCl_3 to 5.00 mL of the polymer solutions, and CHCl_3 was added to acquire 10.00 mL solutions. The solutions were stirred for 5 min prior to obtaining fluorescence spectra.

7. Absorption spectra for the titration of **P2** with Bu₄NF.

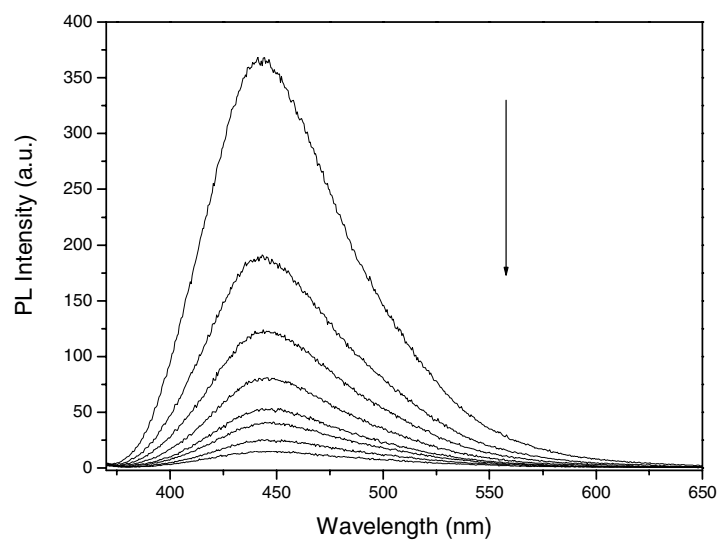


8. Fluorescence spectra for the titration of **P2**, **P4**, **P6-P8** with Bu₄NF.

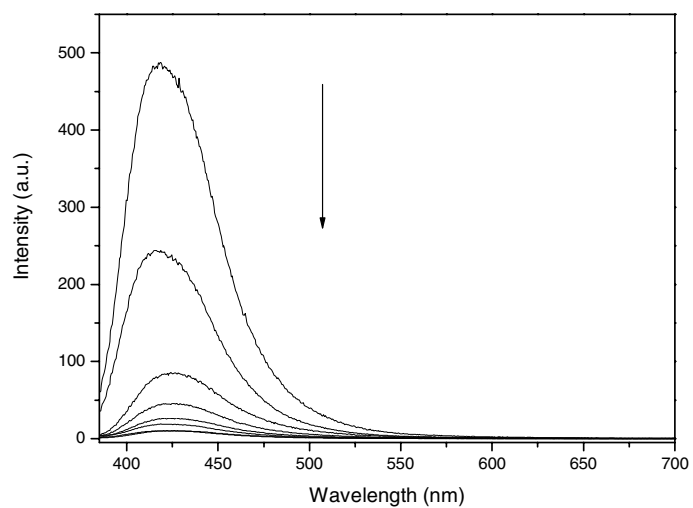
Fluorescence emission for titration of **P2** with 0-100 μ M Bu₄NF in CHCl₃



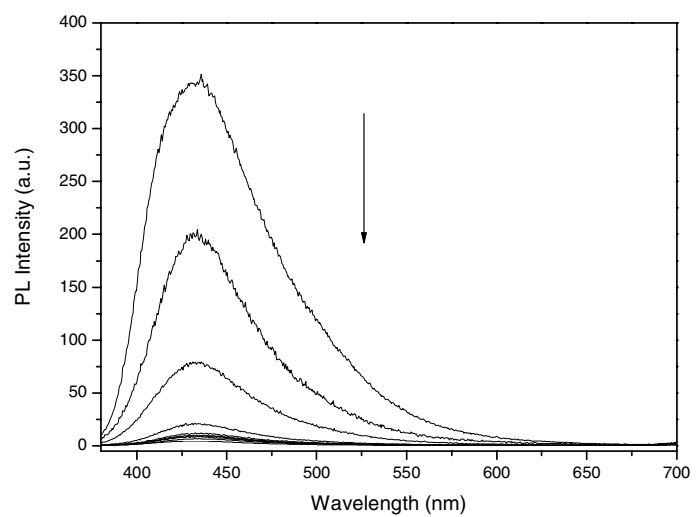
Fluorescence emission for titration of **P4** with 0-100 μ M Bu₄NF in CHCl₃



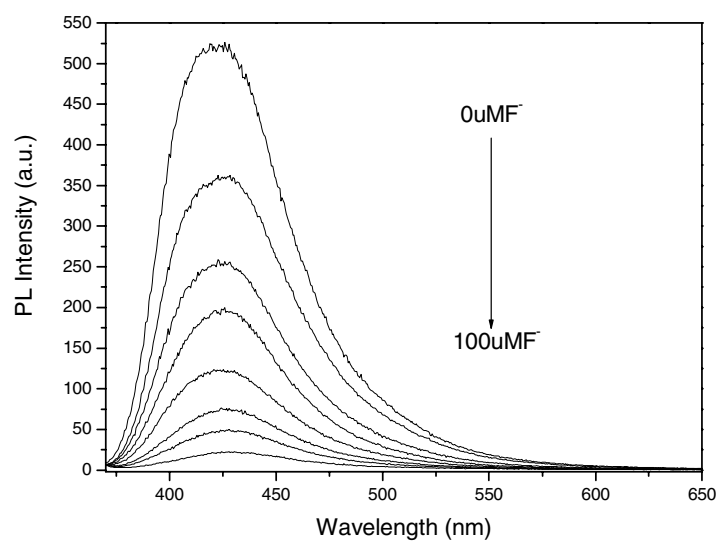
Fluorescence emission for titration of **P6** with 0-100 μM Bu_4NF in CHCl_3



Fluorescence emission for titration of **P7** with 0-100 μM Bu_4NF in CHCl_3

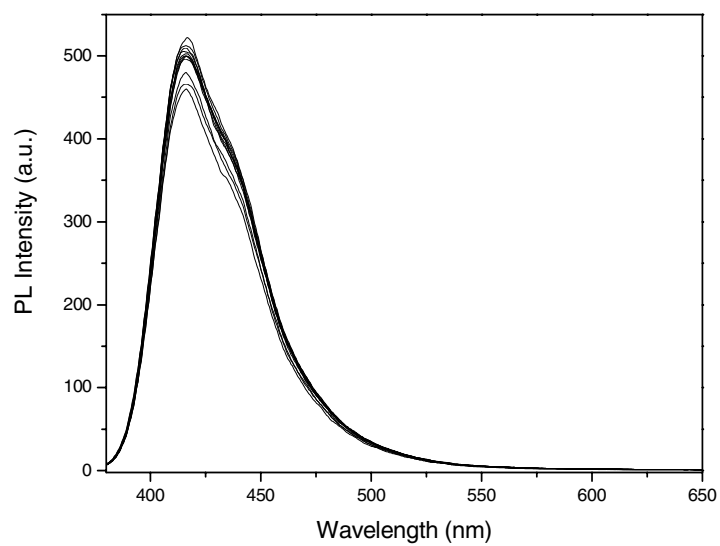


Fluorescence emission for titration of **P8** with 0-100 μM Bu_4NF in CHCl_3



9. Absorption and fluorescence spectra for the titration of **P1+P5** with Bu₄NF.

Fluorescence emission for titration of **P1+P5** with 0-100 μ M Bu₄NF in CHCl₃



Absorption spectra for titration of **P1+P5** with 0-100 μ M Bu₄NF in CHCl₃

