

**Electronic supplementary information for the RSC Advances paper**

**Probing the Spectral Response of a New Class of Bio-Active Pyrazoline  
Derivative in Homogeneous Solvents and Cyclodextrin Nanocavities: A  
Spectroscopic Exploration Appended by Quantum Chemical Calculation and  
Molecular Docking Analysis**

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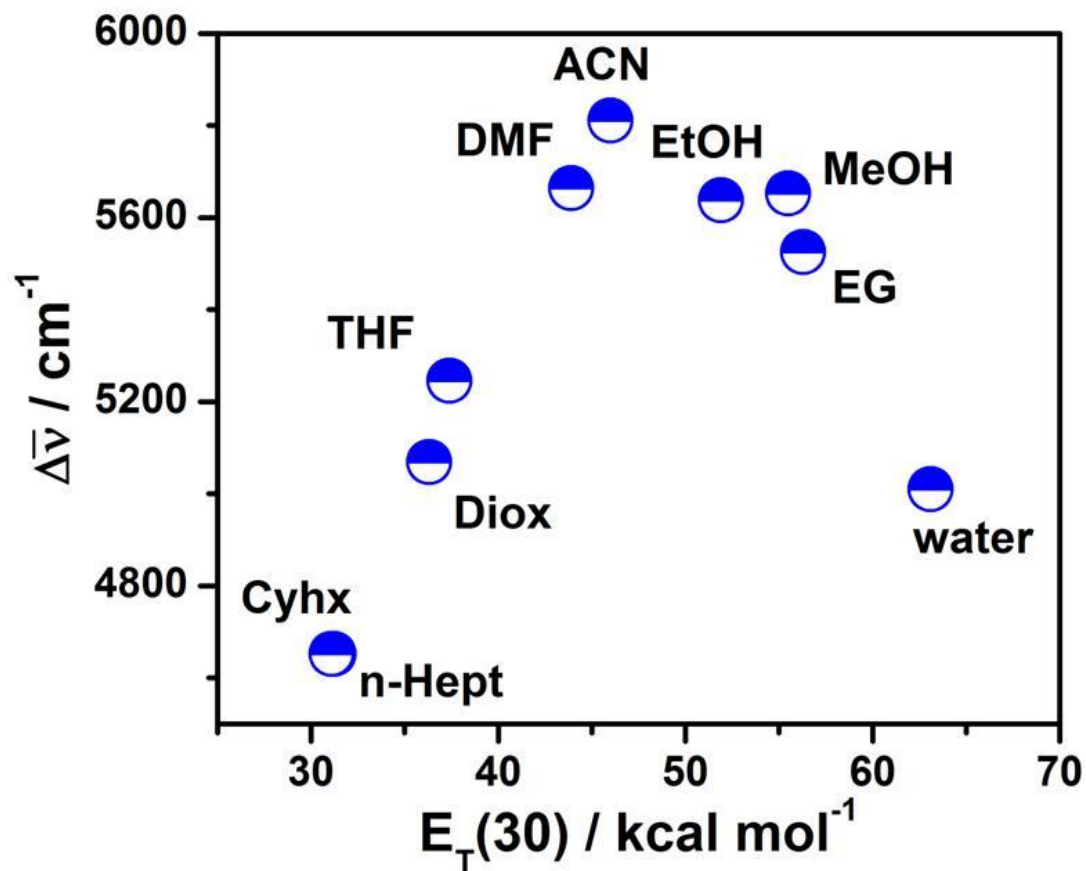
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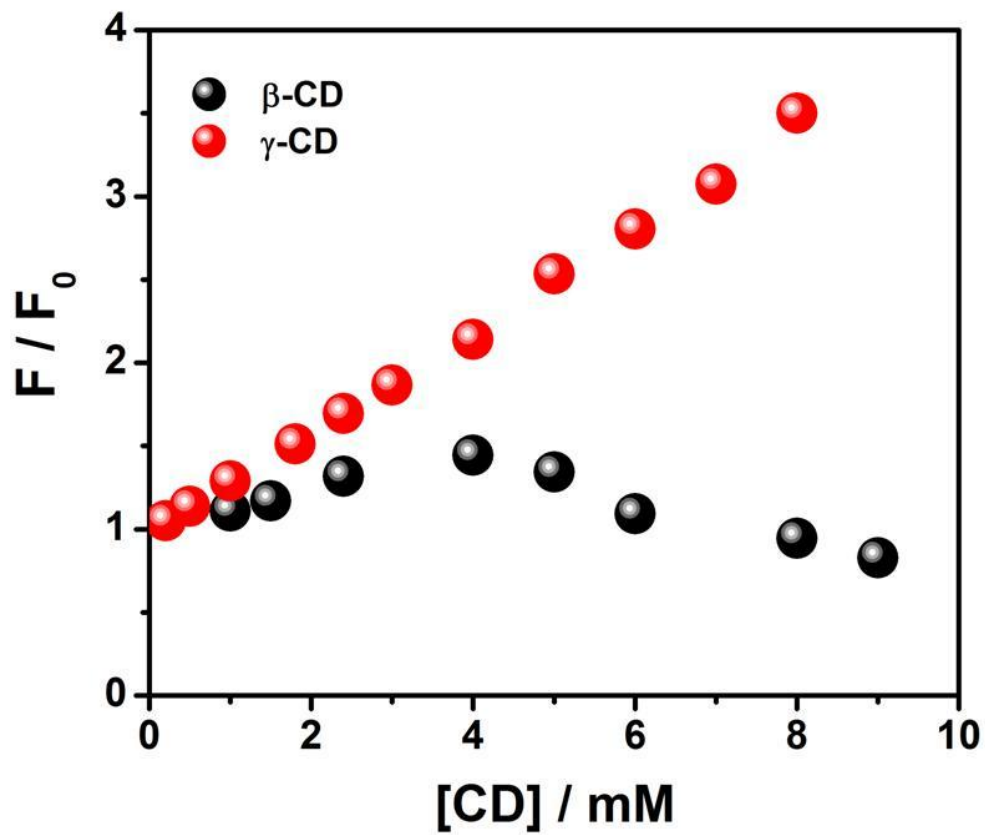
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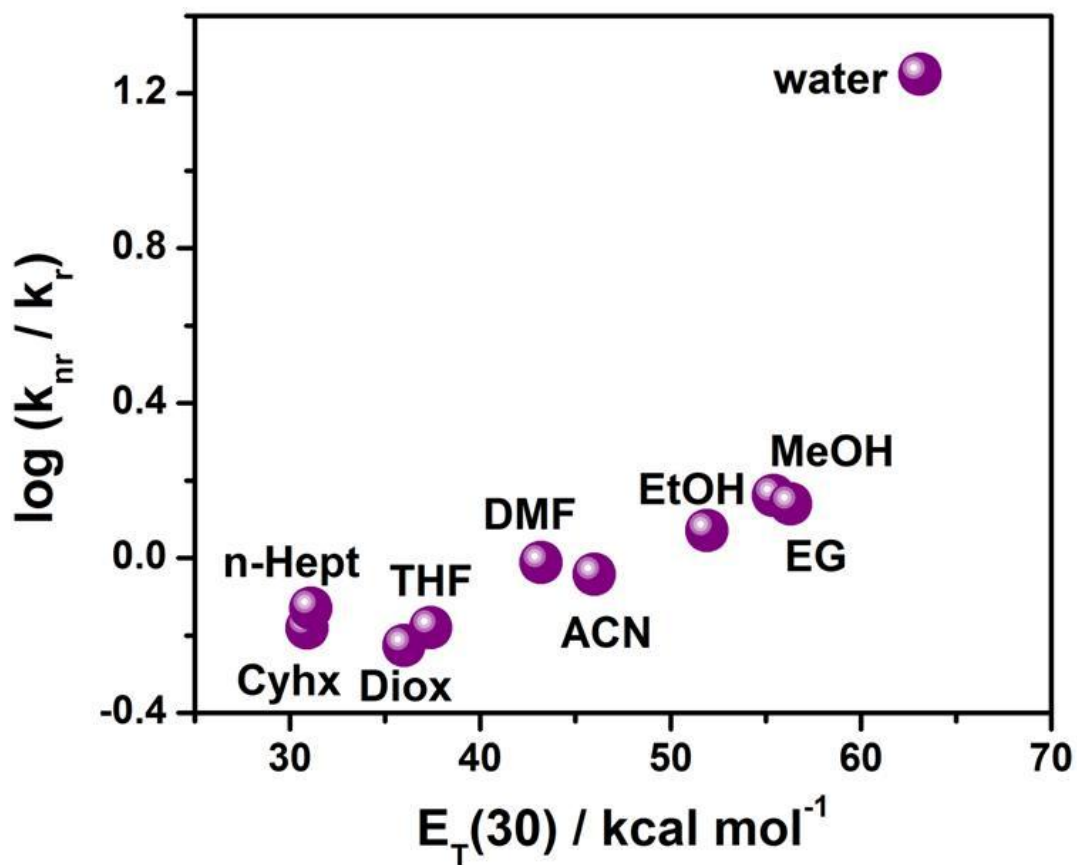
**Fig. S1** Plot of Stokes shift ( $\Delta\bar{\nu}$ ) vs.  $E_T(30)$  for PZ in different homogeneous solvents.



**Fig. S2** Variation of  $F/F_0$  for PZ with concentration of cyclodextrin.



**Fig. S3** Plot of  $\log(k_{nr}/k_r)$  vs.  $E_T(30)$  for PZ in different homogeneous solvents.



**Table ST 1:** Variation of Quantum yield in different % of Diox-water mixture

<b>% of Diox in Diox-water mixture</b>	<b>Quantum yield</b>
0	0.03
10	0.17
20	0.24
30	0.30
40	0.34
50	0.39
60	0.42
70	0.48
80	0.54
90	0.60
100	0.63

**Table ST 2:** Variation of Wavelength of PZ upon addition of cyclodextrin in different concentration

<b>Beta-cyclodextrin</b>		<b>Gama-cyclodextrin</b>	
Concentration (mM)	Wavelength (nm)	Concentration (mM)	Wavelength (nm)
0.0	494	0.0	494
1.0	487	0.2	493
2.4	480	0.5	492
4.0	478	1.0	488
5.0	476	1.8	487
6.0	475	2.4	486
8.0	474	3.0	485
9.0	474	4.0	482
		5.0	481
		6.0	480
		7.0	478
		8.0	478