

Nano rutile TiO₂ catalysed synthesis of (E)-4-(2-(1-(4-chlorophenyl)-1H-phenanthro[9,10-d]imidazol-2-yl)vinyl)-N,N-dimethylaniline and its interaction with super paramagnetic nanoparticles

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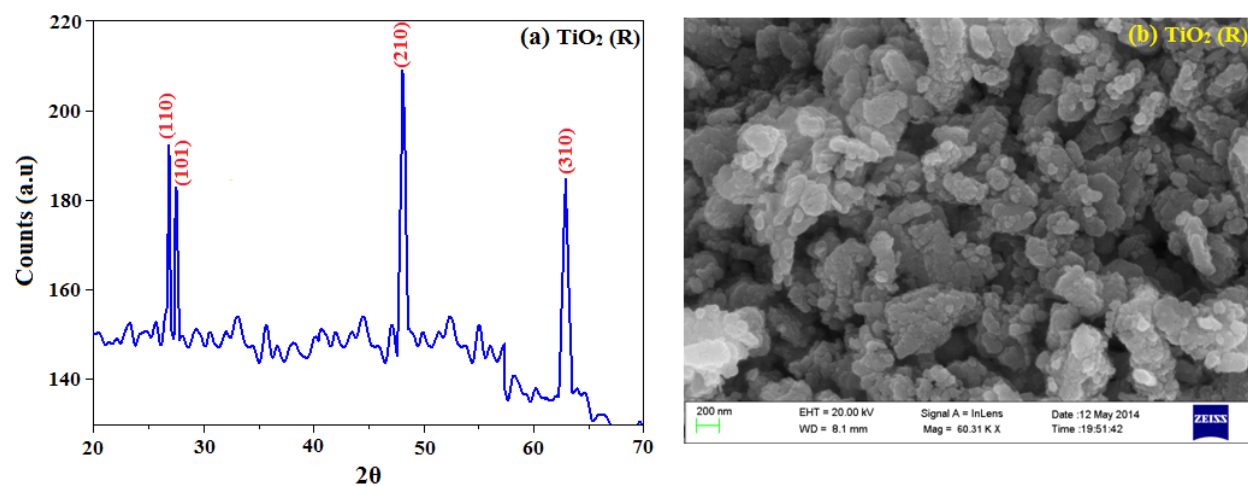


Figure S1

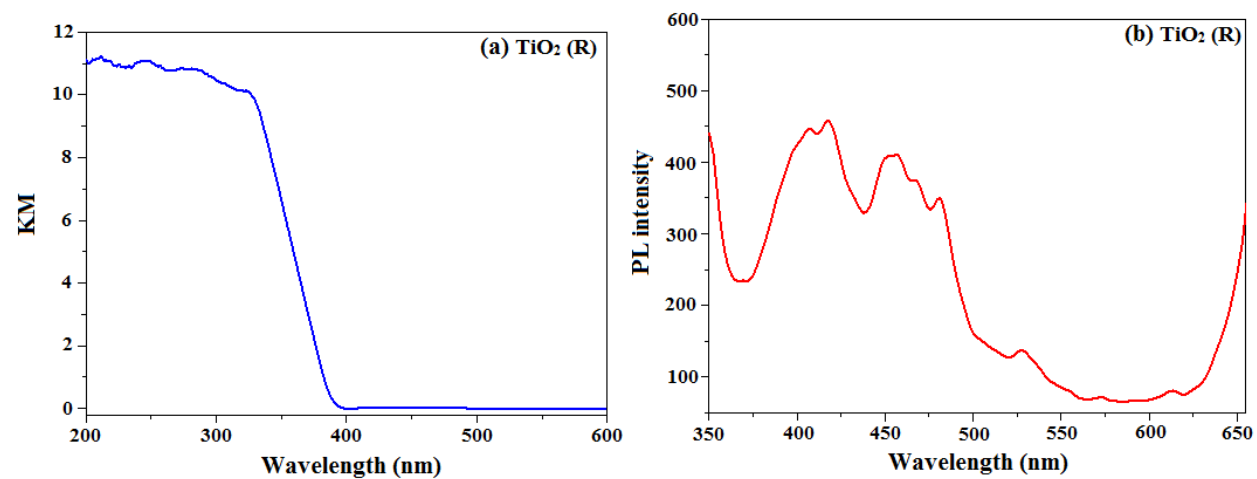


Figure S2

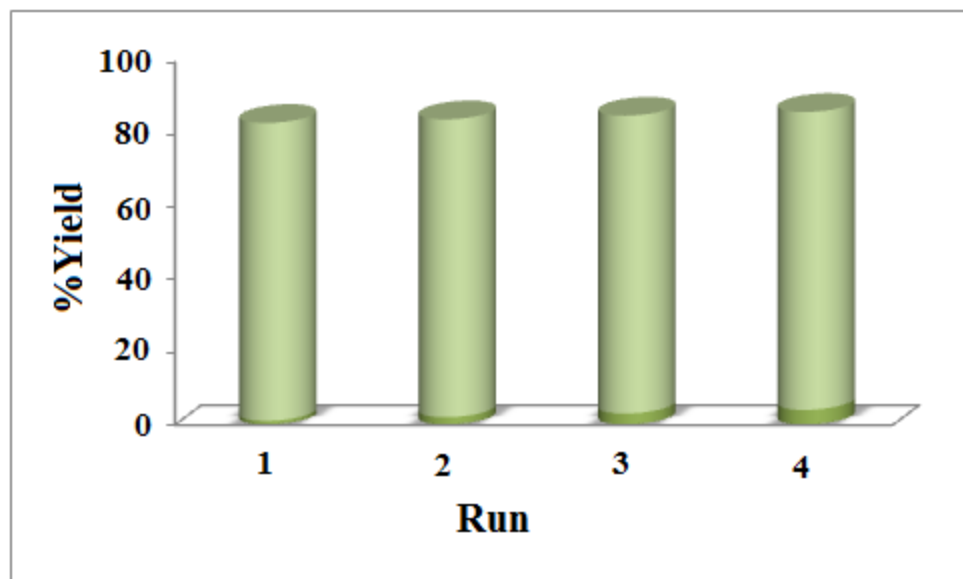


Figure S4

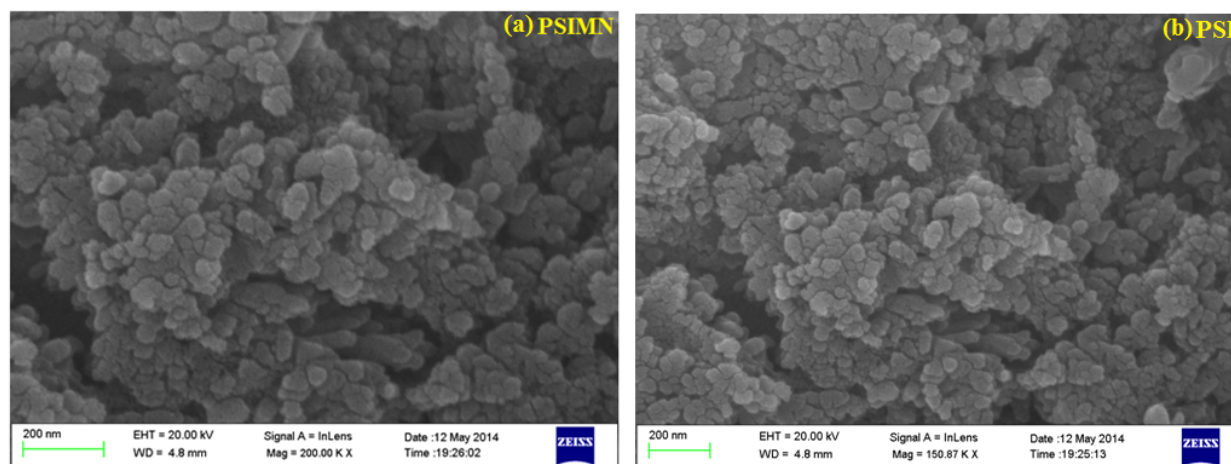


Figure S5

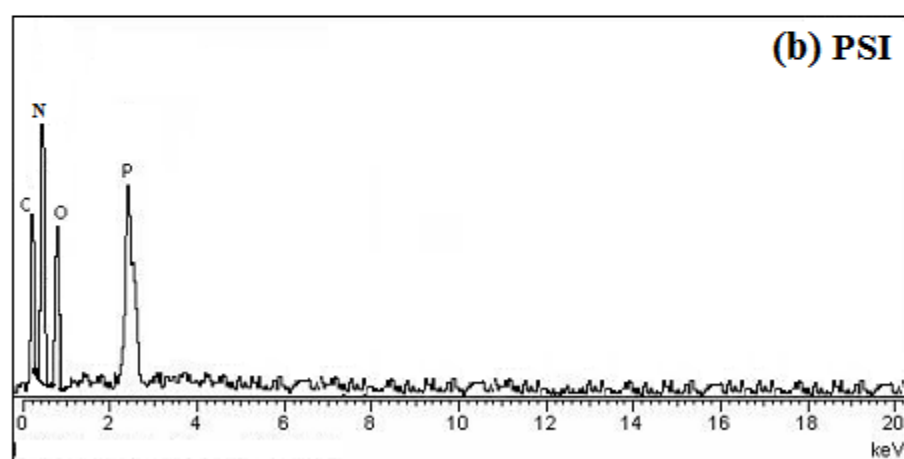
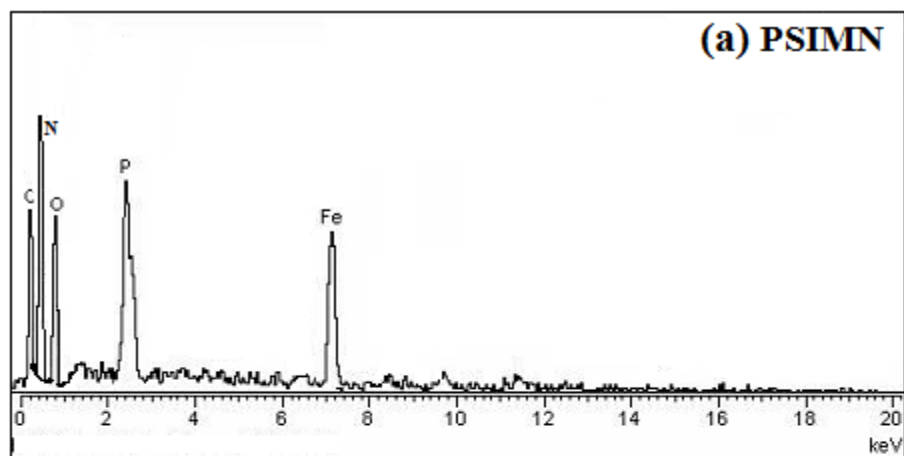


Figure S6

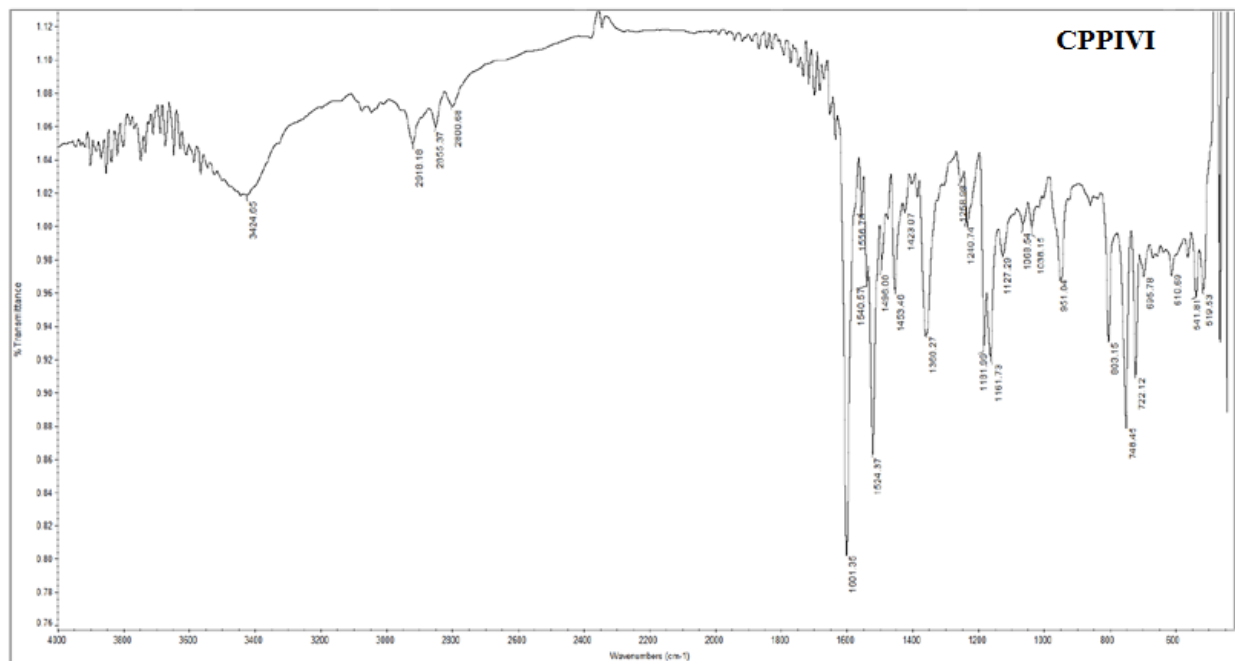


Figure S7a

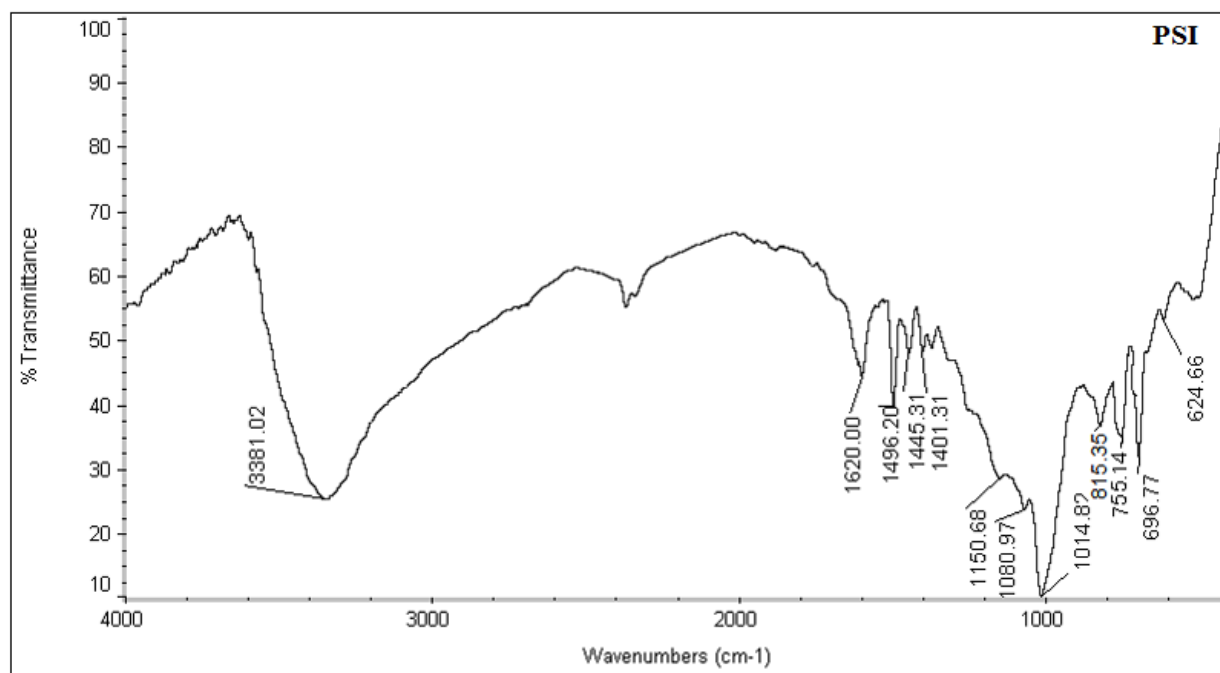


Figure S7b

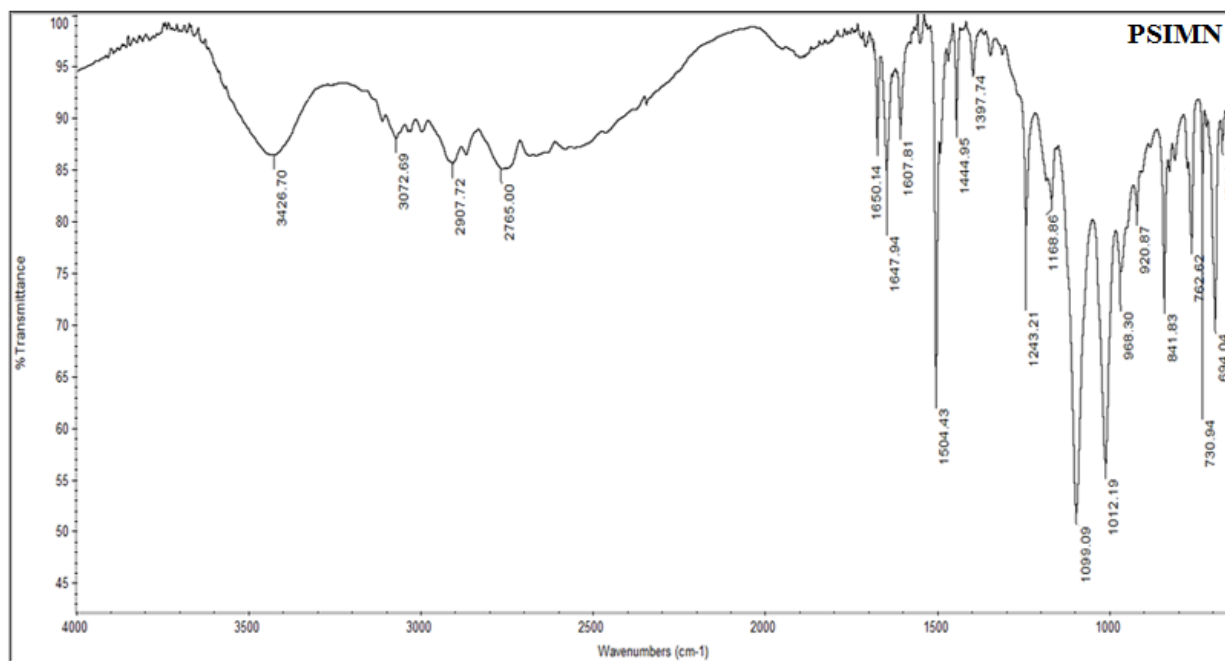


Figure S7c

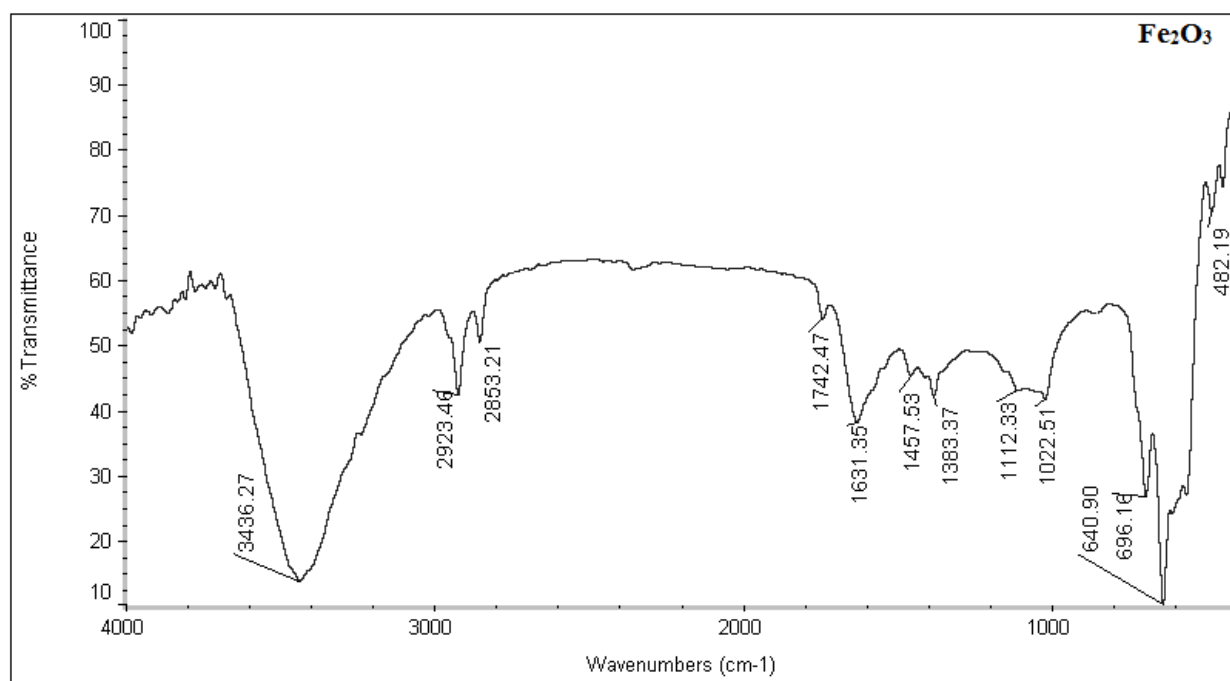


Figure S7d

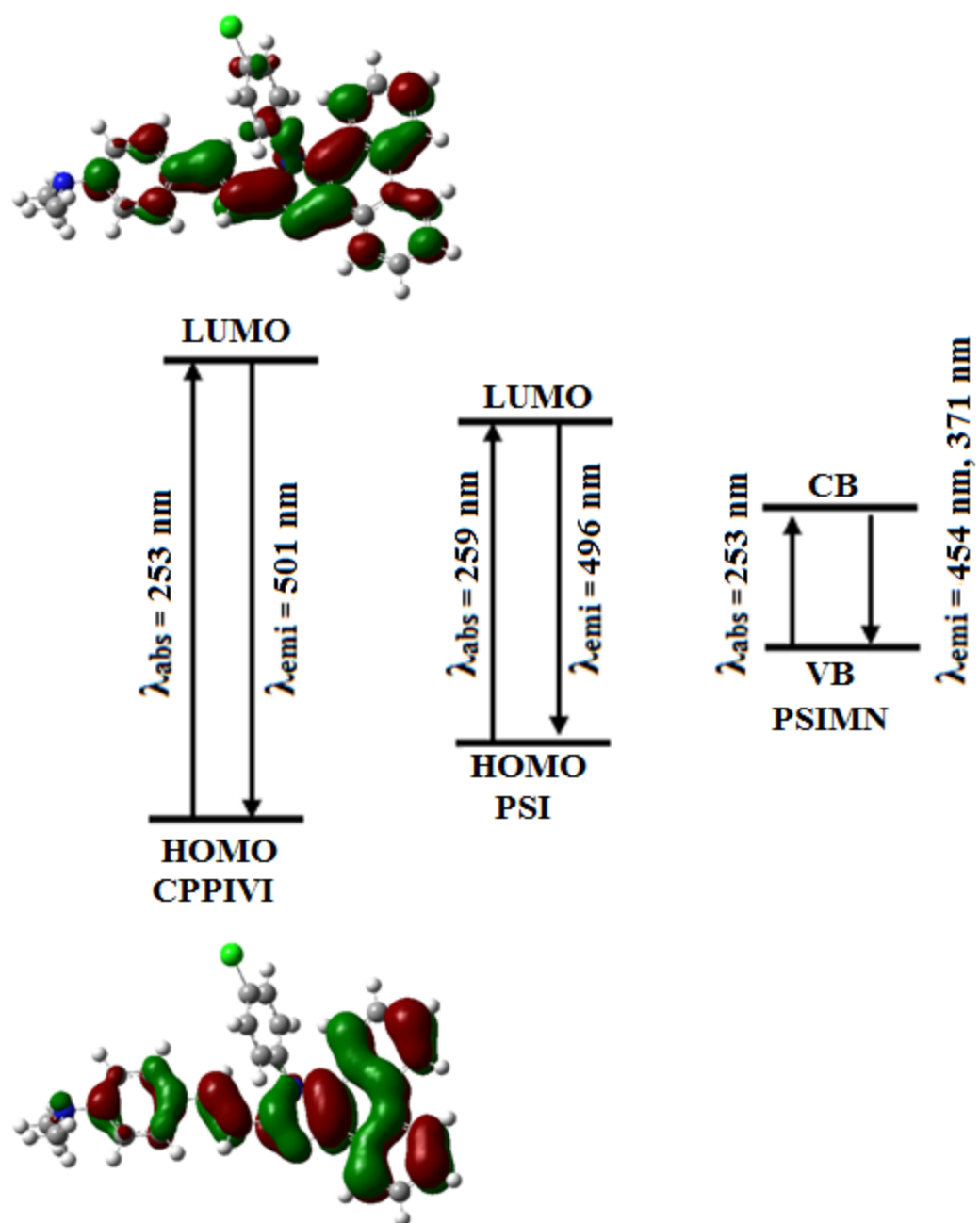


Figure S8

Table S1. Effect of catalyst and temperature in the synthesis of styryl phenanthrimidazoles

Entry	Temp (°C)	solvent	TiO ₂		TiO ₂ (mol%)
			Time (min)	Yield (%)	
1	r.t	Solvent-free	125 (350)	65(Trace)	0.1
2	50	Solvent-free	62(240)	70(20)	0.1
3	70	Solvent-free	35(65)	75(45)	0.1
4	90	Solvent-free	20(80)	80(50)	0.1
5	120	Solvent-free	30	82	1
6	120	Solvent-free	25	85	2
7	120	Solvent-free	40	88	10
8	120	Water	100	30	1
9	120	Ethanol	40	60	1
10	120	Methanol	50	65	1
11	120	Chloroform	140	40	1
12	120	Acetonitrile	95	60	1

values in the parenthesis corresponds to without catalyst