

## Supporting Information

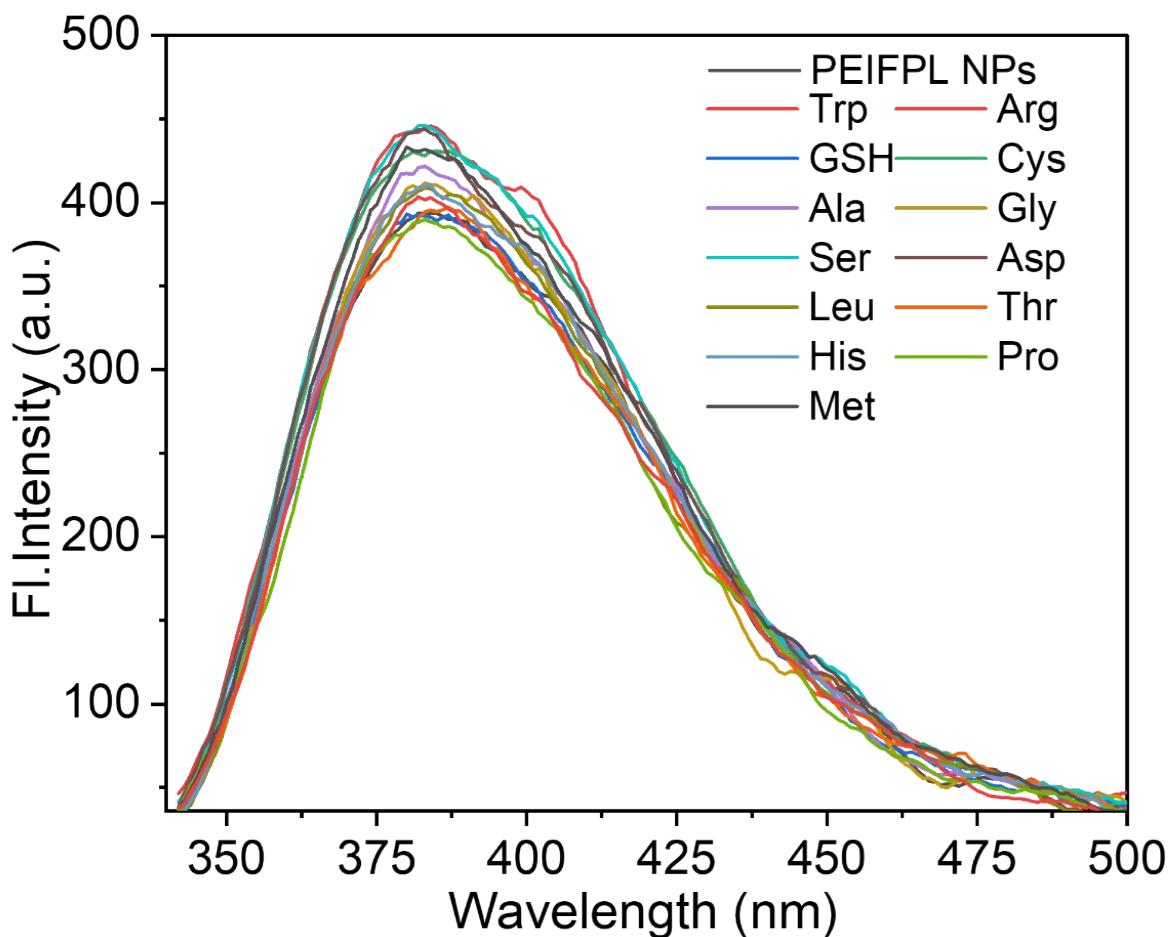
### Polyethyleneimine-based fluorescent polymeric nanoparticles: synthesis and application in fluorescence sensing of pH and para-nitrophenol

Anuj K Saini<sup>a</sup>, Bigyan R. Jali<sup>b</sup> and Suban K Sahoo<sup>a,\*</sup>

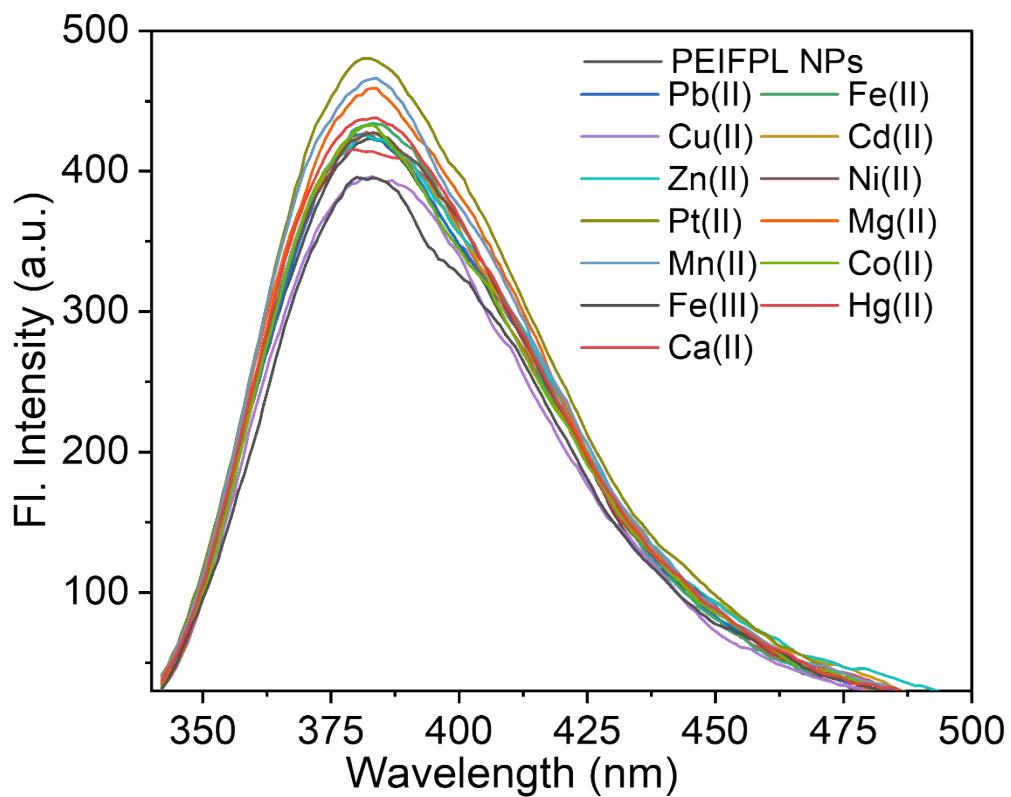
<sup>a</sup> Department of Chemistry, Sardar Vallabhbhai National Institute of Technology, Surat-395007, Gujarat, India.

<sup>b</sup> Department of Chemistry, Veer Surendra Sai University of Technology, Burla, Sambalpur 768018, Odisha, India.

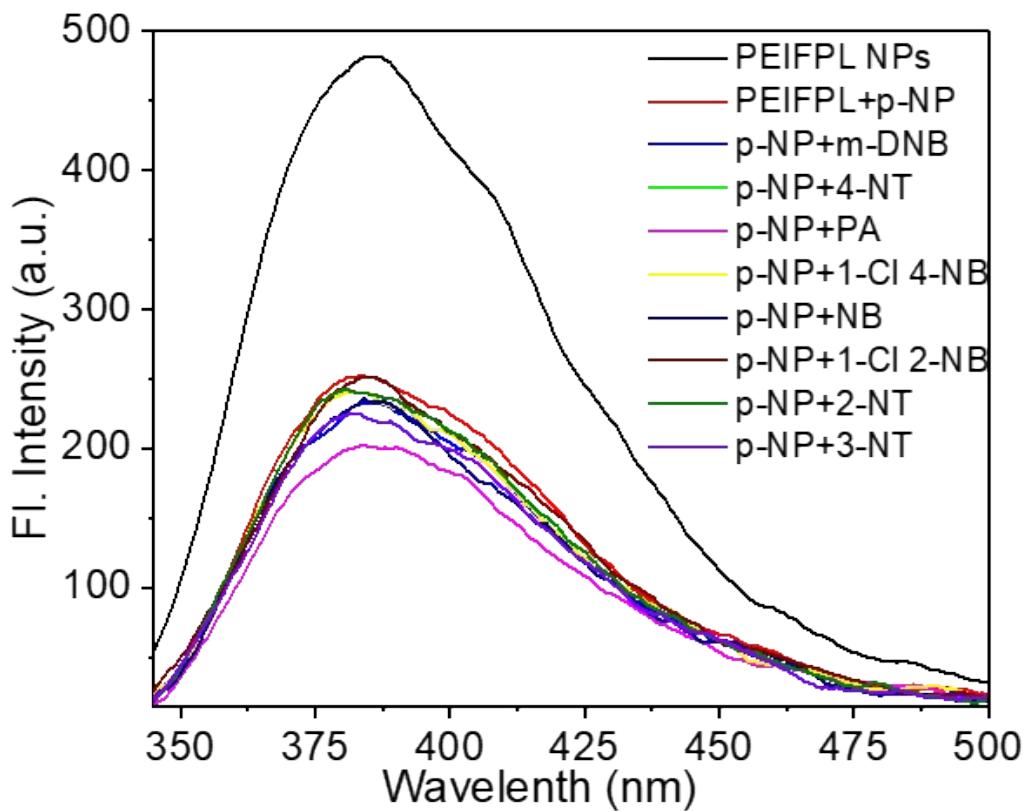
\*Corresponding author (Dr. Sahoo): sks@chem.svnit.ac.in.



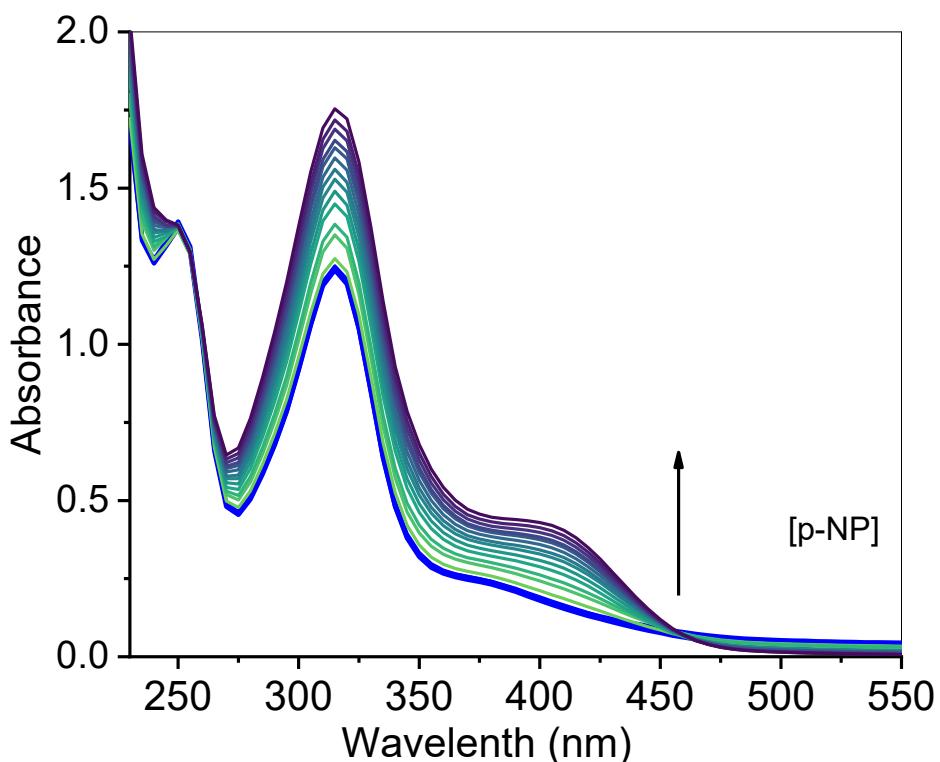
**Fig. S1.** Fluorescence spectra of PEIFPL NPs in the presence of different amino acids.



**Fig. S2.** Fluorescence spectra of PEIFPL NPs in the presence of different metal cations.



**Fig. S3.** Fluorescent spectra of PEIFPL NPs in the presence of p-NP and co-presence of equimolar amount of different interfering nitroaromatic compounds.



**Fig. S4.** UV-Vis absorption spectra of PEIFPL NPs with the successive incremental addition of p-NP from 0 to 36  $\mu\text{M}$ .

**Table S1.** Comparison of reported fluorescent p-NP probes with PEIFPL NPs.

Probes	Response	Linear range	LOD	Applications	Ref.
Ag-doped ZnO	“Turn off”	0 to 9 $\mu\text{M}$	0.66 $\mu\text{M}$	-	1
Gd <sub>2</sub> O <sub>3</sub> NPs	“Turn off”	1 to 10 $\mu\text{M}$	1.52 $\mu\text{M}$	Real water sample	2
NOCDs	“Turn off”	2 to 100 $\mu\text{M}$	2 $\mu\text{M}$	Tap water and industrial samples	3
Bluish-green, fluorescent histidine	“Turn off”	0 to 61.1 $\mu\text{M}$	352.6 $\mu\text{M}$	Tap and river water	4
PEIFPL NPs	“Turn off”	0.5 to 50 $\mu\text{M}$	0.42 $\mu\text{M}$	Tap and river water	This paper

## References

1. D. Thakur, A. Sharma, D. S. Rana, N. Thakur, D. Singh, T. Tamulevicius, M. Andrulevicius, S. Tamulevicius, S. K. Shukla and S. Thakur, *Chemosensors*, 2020, **8**, 108.
2. S. Chaudhary, S. Kumar, S. Kumar, G. R. Chaudhary, S. Mehta and A. Umar, *Coatings*, 2019, **9**, 633.
3. N. Bogireddy, R. C. Silva, M. A. Valenzuela and V. Agarwal, *J. Hazard. Mater.*, 2020, **386**, 121643.
4. R. Patel, S. Bothra, R. Kumar and S. K. Sahoo, *Nano-Struct. Nano-Objects*, 2019, **19**, 100345.

\*\*\*\*\*