

Table S1. Mulliken charges and Mulliken charges summed into Heavy atoms (SUHA) of $\text{Co}_3\text{O}_4@\text{PPy}$ NCs by frequency calculation study of Gaussian09.

S. No. of atom	Element	Mulliken charge	H summed into Heavy Atoms (SUHA)
1	C	-0.140672	-0.028447
2	C	-0.136852	-0.041927
3	C	0.237055	0.237055
4	C	0.302540	0.302540
5	N	-0.645074	-0.378814
6	C	-0.090405	-0.090405
7	C	0.302533	0.302533
8	C	-0.136849	-0.041924
9	C	-0.140673	-0.028450
10	C	0.237052	0.237052
11	N	-0.645068	-0.378808
12	C	-0.090405	-0.090405
13	H	0.112224	SUHA
14	H	0.094925	SUHA
15	H	0.112223	SUHA
16	H	0.094925	SUHA
17	H	0.266261	SUHA
18	H	0.266260	SUHA