

Photocatalytic and Antibacterial Activities of a Nickel(II)-Bipyridine Complex-Modified Graphene Oxide Nanocomposite: Synthesis and Characterization

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Figure S1. Image of prepared precursor complex.

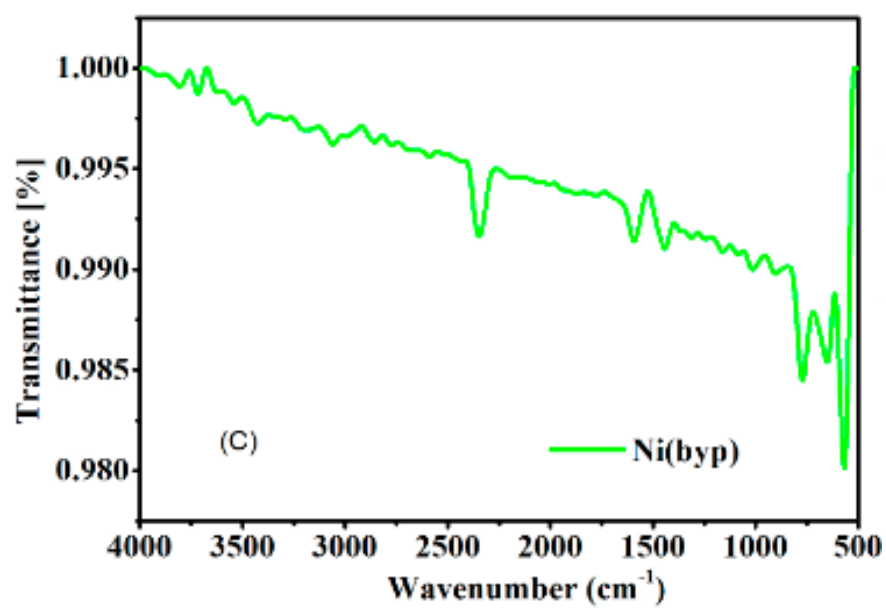


Figure S2. Image of FTIR Spectrum of prepared precursor complex.

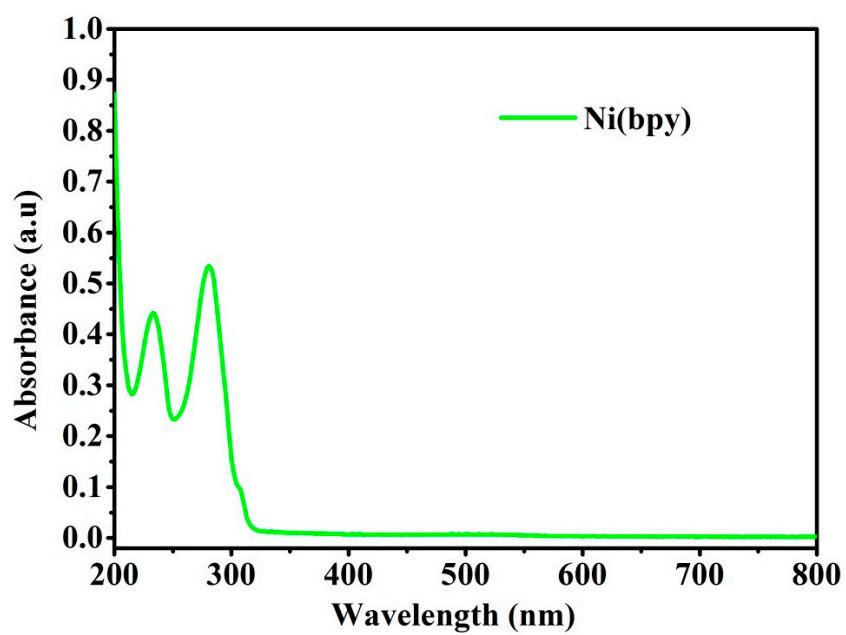


Figure S3. Image of UV-vis Spectrum of prepared precursor complex.

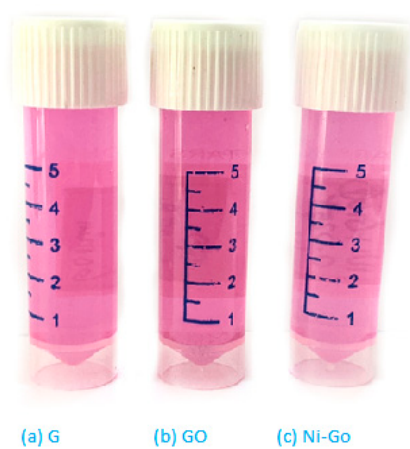


Figure S4. Image of RhB solution after adsorption process with prepared catalysts at room temperature.

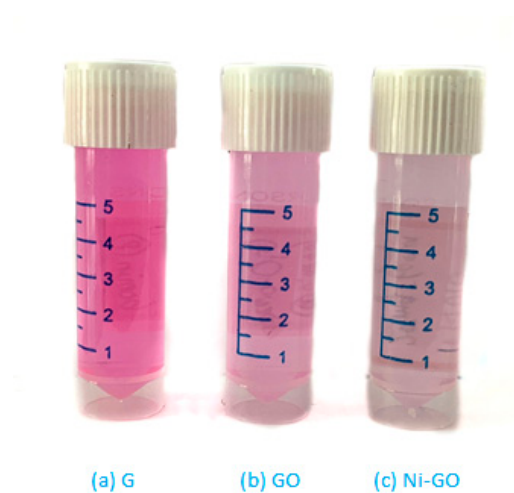


Figure S5. Image of RhB solution after photocatalysis process with prepared photocatalysts at room temperature.

Table S1. XRD data of Graphite.

Pos. [$^{\circ}2\theta$]	Height [cts]	FWHM Left [$^{\circ}2\theta$]	d-spacing [\AA]	Rel. Int. [%]
26.4423	74985.42	0.2890	3.36802	100.00
42.3152	744.99	0.1560	2.13418	0.99
44.4163	666.72	0.9368	2.03798	0.89
54.5106	1956.28	0.3505	1.68204	2.61
77.4597	608.52	0.1874	1.23120	0.81

Table S2. XRD data of Graphene Oxide.

Pos. [$^{\circ}2\theta$]	Height [cts]	FWHM Left [$^{\circ}2\theta$]	d-spacing [\AA]	Rel. Int. [%]
26.4549	45375.57	0.3174	3.36644	100.00
42.3247	374.33	0.1828	2.13372	0.82
44.3635	374.28	0.6891	2.04028	0.82
54.5084	1275.41	0.3062	1.68210	2.81
77.4609	355.47	0.1809	1.23118	0.78

Table S3. XRD data of Ni-GO nanocomposite.

Pos. [$^{\circ}2\theta$]	Height [cts]	FWHM Left [$^{\circ}2\theta$]	d-spacing [\AA]	Rel. Int. [%]
10.9548	3579.74	0.6576	8.06994	100.00
26.3420	69.43	0.5481	3.38060	1.94
42.3785	291.98	0.6702	2.13114	8.16

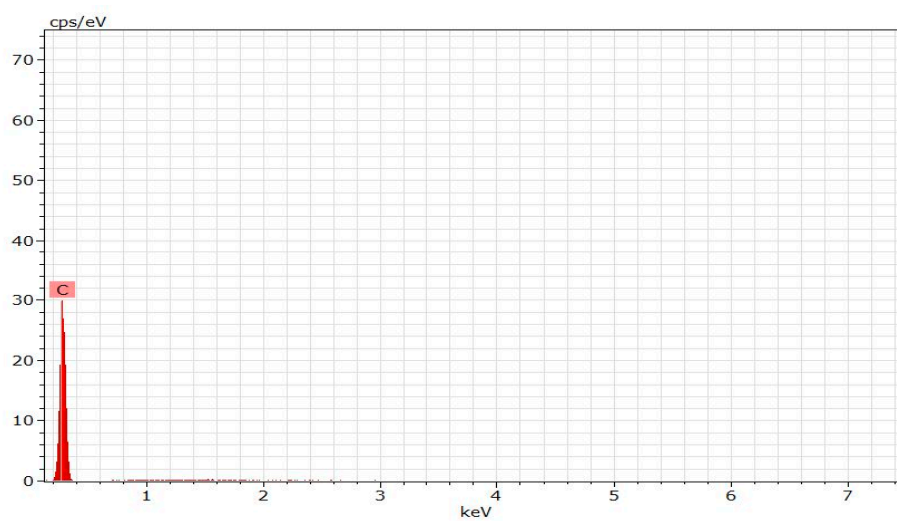


Figure S6. EDAX spectrum of Graphite.

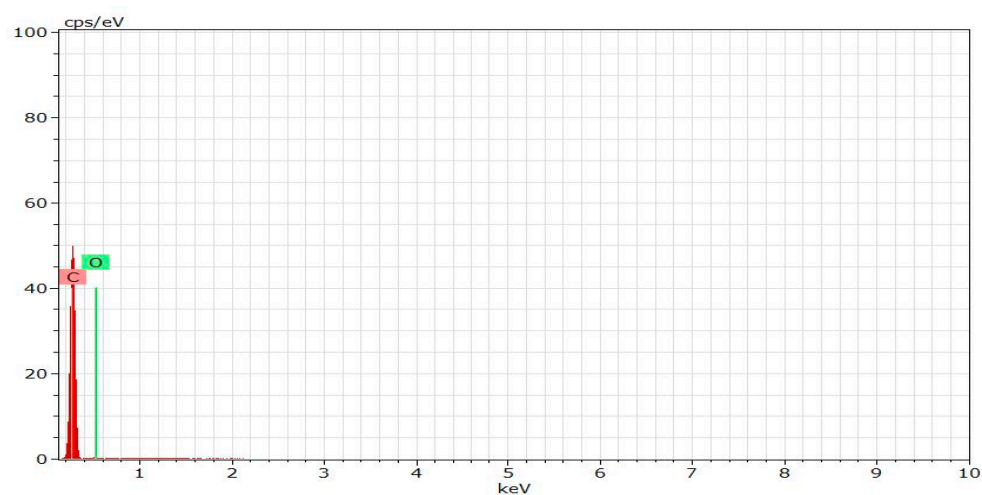


Figure S7. EDAX spectrum of GO.

Table S4. EDAX data of G, GO and Ni/GO composite.

S.No.	Sample	Elements	At. No.	Series	Wt. (%)	At (%)	Sigma Wt. (%)
1	G	C	6	K	100	100	14.75
2	GO	C	6	K	99.16	99.37	12.35
		O	8	K	0.84	0.63	0.42
3	Ni-GO	C	6	K	70.82	76.49	10.21
		O	8	K	28.92	23.45	5.42
		Ni	28	L	0.26	0.06	0.29

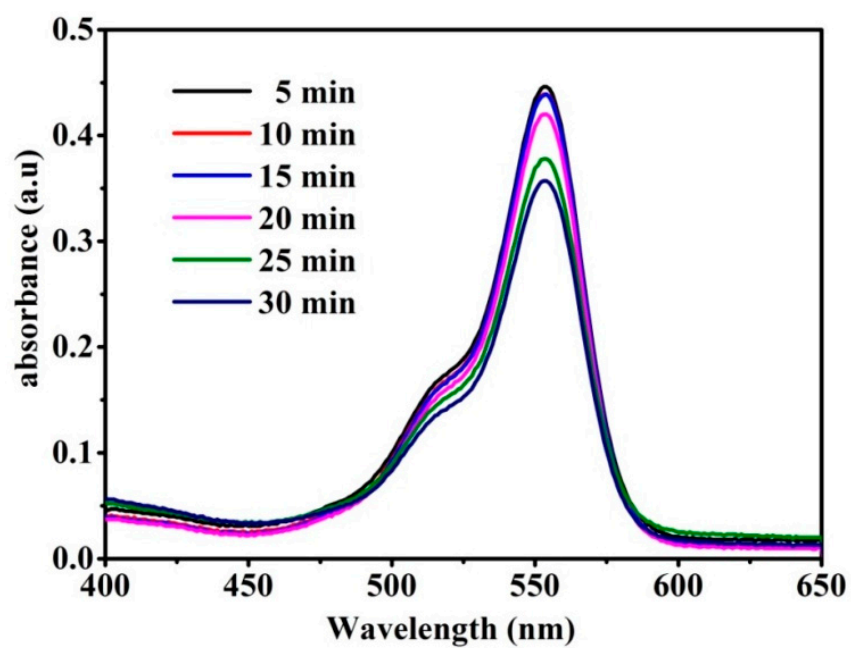


Figure S8. UV-visible spectra of photo irradiated solution of RhB with Ni-GO composite at various time intervals under sunlight irradiation in water.

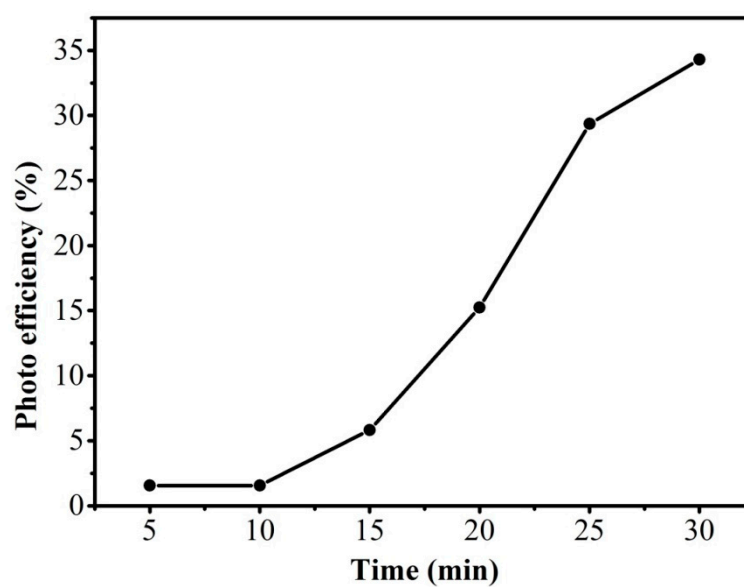


Figure S9. PE of Ni-GO composite at various irradiation times under sunlight.