

Accelerated Decoloration of Organic Dyes from Wastewater Using Ternary Metal/g-C₃N₄/ZnO Nanocomposites: An Investigation of Impact of g-C₃N₄ Concentration and Ni and Mn Doping

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Table S1. Composition of the synthesized Ni/g-C₃N₄/ZnO composites.

Sr. No	Nanocomposites	Nickle Nitrate	Zinc Acetate	g-C ₃ N ₄	Code
1	Ni/20%g-C ₃ N ₄ /ZnO	0.174 g	2. 20 g	0.34 g	Ni/20GZ
2	Ni/30%g-C ₃ N ₄ /ZnO	0.174 g	2. 20 g	0.51 g	Ni/30GZ
3	Ni/40%g-C ₃ N ₄ /ZnO	0.174 g	2. 20 g	0.68 g	Ni/40GZ
4	Ni/50%g-C ₃ N ₄ /ZnO	0.174 g	2. 20 g	0.85 g	Ni/50GZ
5	Ni/60%g-C ₃ N ₄ /ZnO	0.174 g	2. 20 g	1. 02 g	Ni/60GZ
6	Ni/70%g-C ₃ N ₄ /ZnO	0.174 g	2. 20 g	2. 19 g	Ni/70GZ
7	Ni/70%g-C ₃ N ₄ /ZnO	0.174 g	2. 20 g	2. 19 g	Ni/80GZ

Table S2. Composition of the synthesized Mn/g-C₃N₄/ZnO composites.

Sr. No	Nanocomposites	Manganese Chloride	Zinc Acetate	g-C ₃ N ₄	Code
1	Mn/20%g-C ₃ N ₄ /ZnO	0.120 g	2. 20 g	0.34 g	Mn/20GZ
2	Mn/30%g-C ₃ N ₄ /ZnO	0.120 g	2. 20 g	0.51 g	Mn/30GZ
3	Mn/40%g-C ₃ N ₄ /ZnO	0.120 g	2. 20 g	0.68 g	Mn/40GZ
4	Mn/50%g-C ₃ N ₄ /ZnO	0.120 g	2. 20 g	0.85 g	Mn/50GZ
5	Mn/60%g-C ₃ N ₄ /ZnO	0.120 g	2. 20 g	1. 02 g	Mn/60GZ
6	Mn/70%g-C ₃ N ₄ /ZnO	0.120 g	2. 20 g	2. 19 g	Mn/70GZ
7	Mn/70%g-C ₃ N ₄ /ZnO	0.120 g	2. 20 g	2. 19 g	Mn/80GZ

Table S3. Elemental data of ZnO nanoparticles.

Element	Weight %	Atomic %
O K	29.10	65.63
Zn K	70.90	34.33
Total	100.00	

Table S4. Elemental data of g-C₃N₄ nanosheets.

Element	Weight %	Atomic %
C K	39.85	45.22
N K	56.69	52.10
O K	3.46	2.70
Total	100.00	

Table S5. Elemental data of Mn/g-C₃N₄/ZnO nanocomposites.

Element	Weight %	Atomic %
C K	17.55	23.28
N K	26.31	29.97
O K	43.68	43.61
Zn K	9.47	2.32
Mn	2.99	0.89
Total	100.00	

Table S6. Elemental data of Ni/g-C₃N₄/ZnO nanocomposites..

Element	Weight %	Atomic %
C K	18.44	24.72
N K	25.26	27.76
O K	43.22	43.29
Zn K	10.19	3.11
Ni	2.89	0.85
Total	100.00	

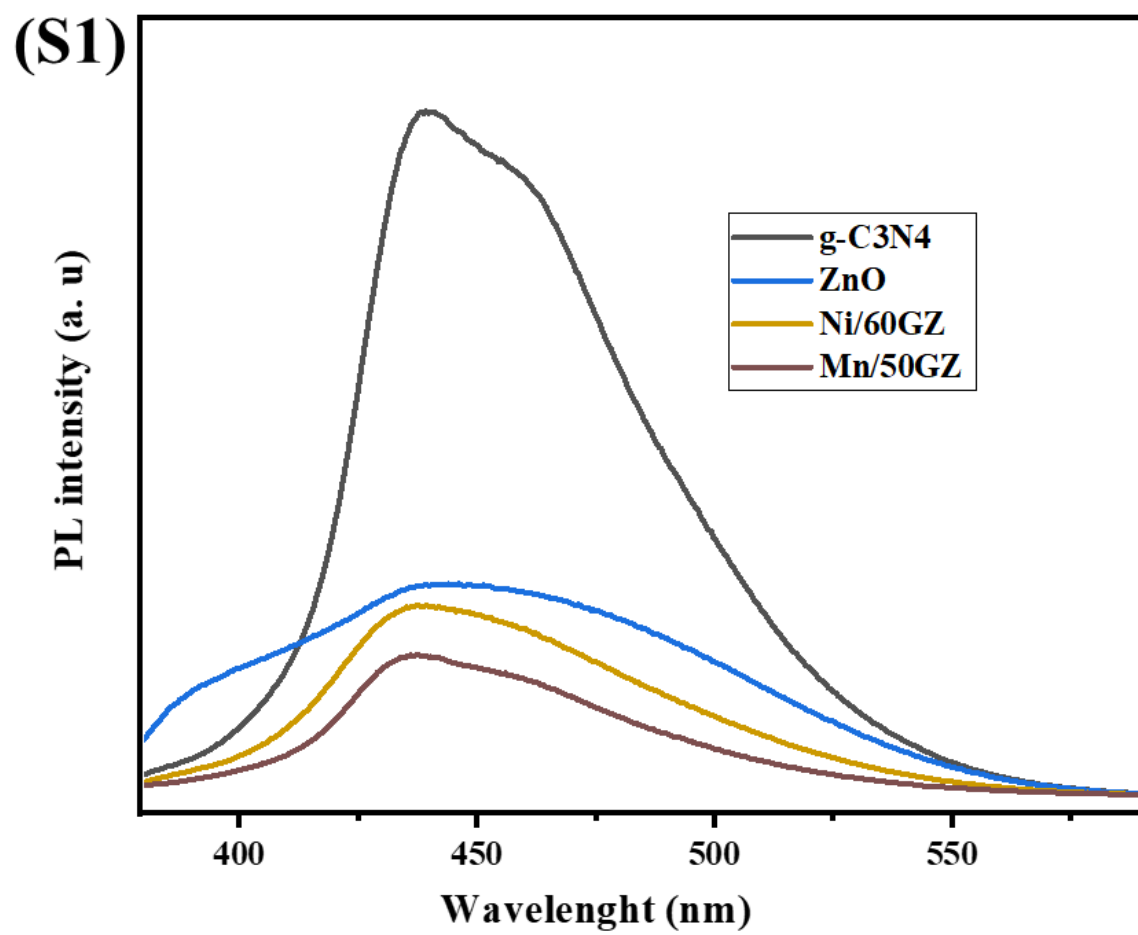


Figure S1. Photoluminescence spectra of ZnO, Ni/60GZ, Mn/50GZ, and g-C₃N₄ samples.