## **Supporting Information**

## Synthesis of Gd/N co-doped ZnO for enhanced UV-vis and direct solarlight-driven photocatalytic degradation

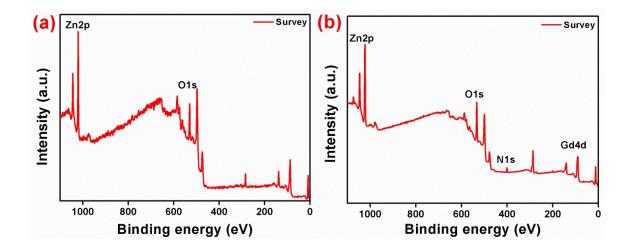


Figure S1. XPS survey spectrum (a) Pure ZnO and (b) Gd/N/ZnO

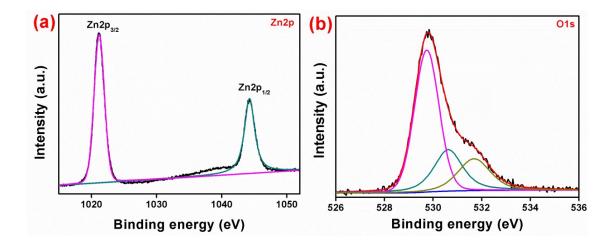


Figure S2. High resolution XPS spectrum of pure ZnO (a) Zn2p and (b) O1s

S.No	Elements	Atomic%
1	Zinc (Zn)	25.74
2	Gadolinium (Gd)	4.14
3	Nitrogen (N)	10.34
4	Oxygen (O)	59.78

Table 1. Atomic % of elements presented in the Gd/N/ZnO nanoparticle using XPS analysis.