

ARTICLE

Supporting Information

The impact of electrolytic pH on photoelectrochemical water oxidation

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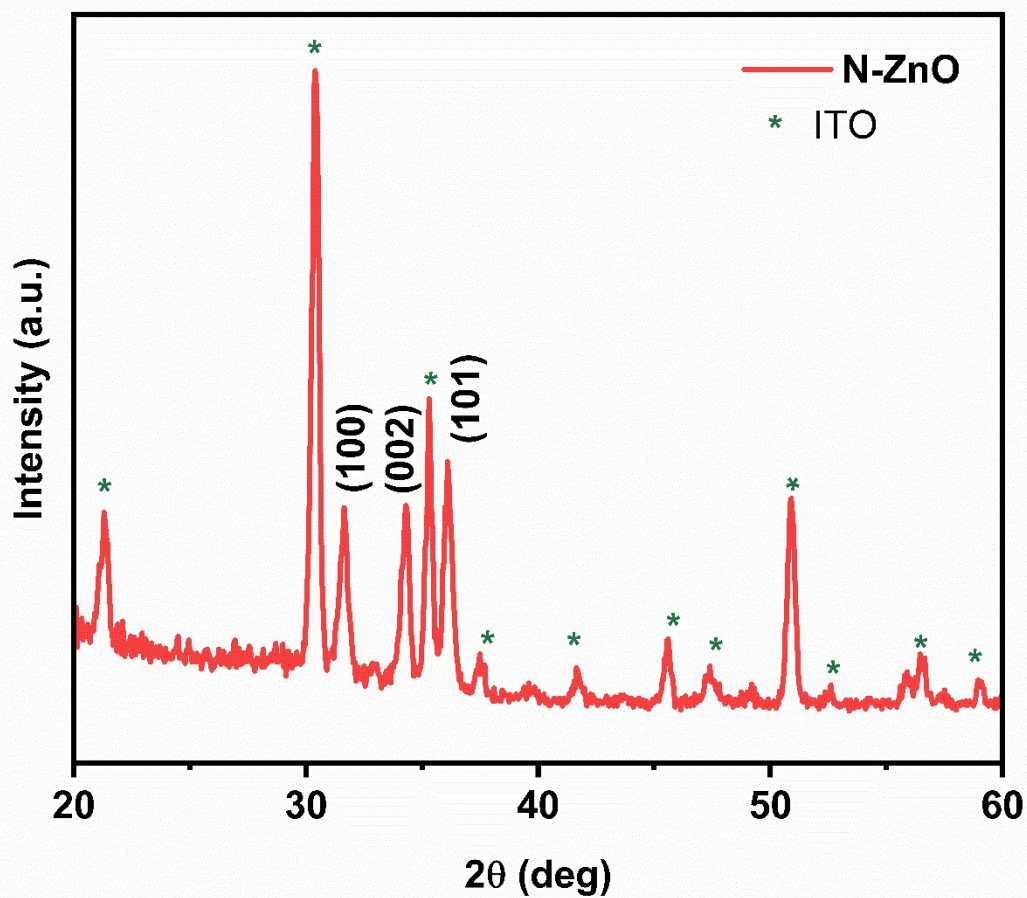


Fig. S1. XRD pattern for nanostructured N-ZnO.

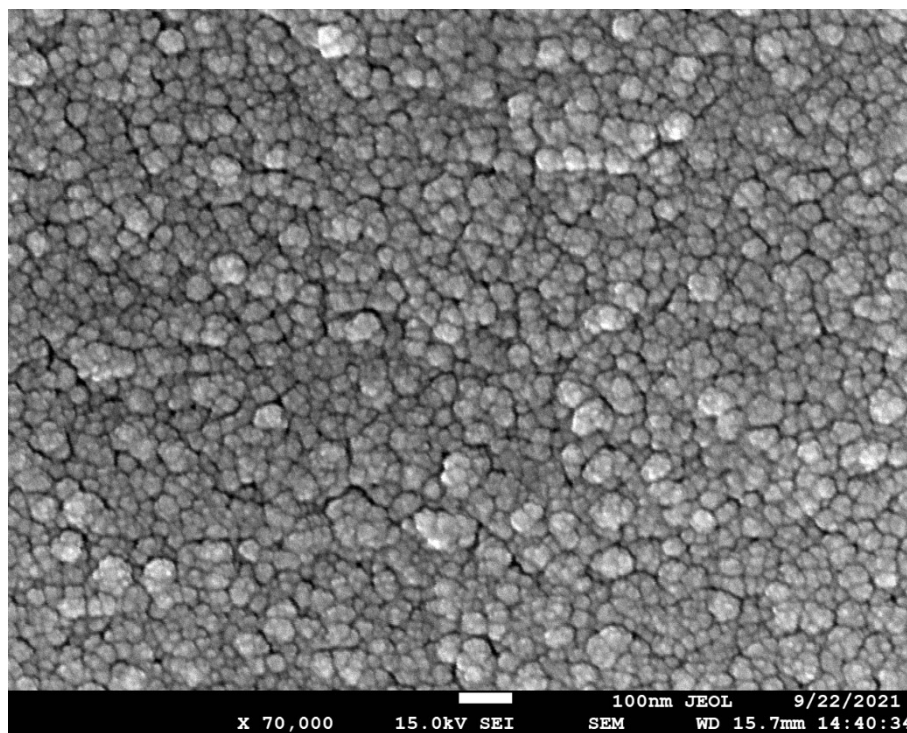


Fig. S2. FESEM image of nanostructured N-ZnO at 100 nm scale.

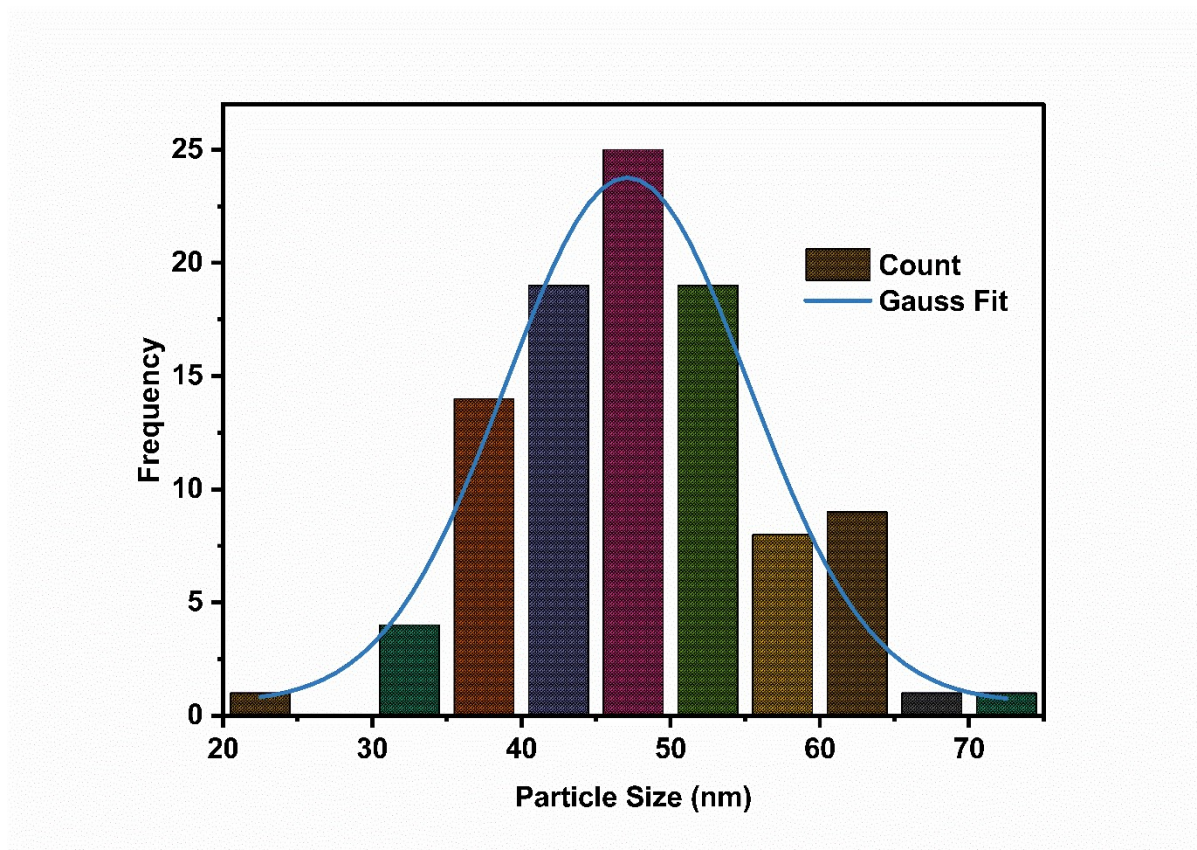


Fig. S3. Gaussian fitting curve of diameter distribution for nanostructured N-ZnO.

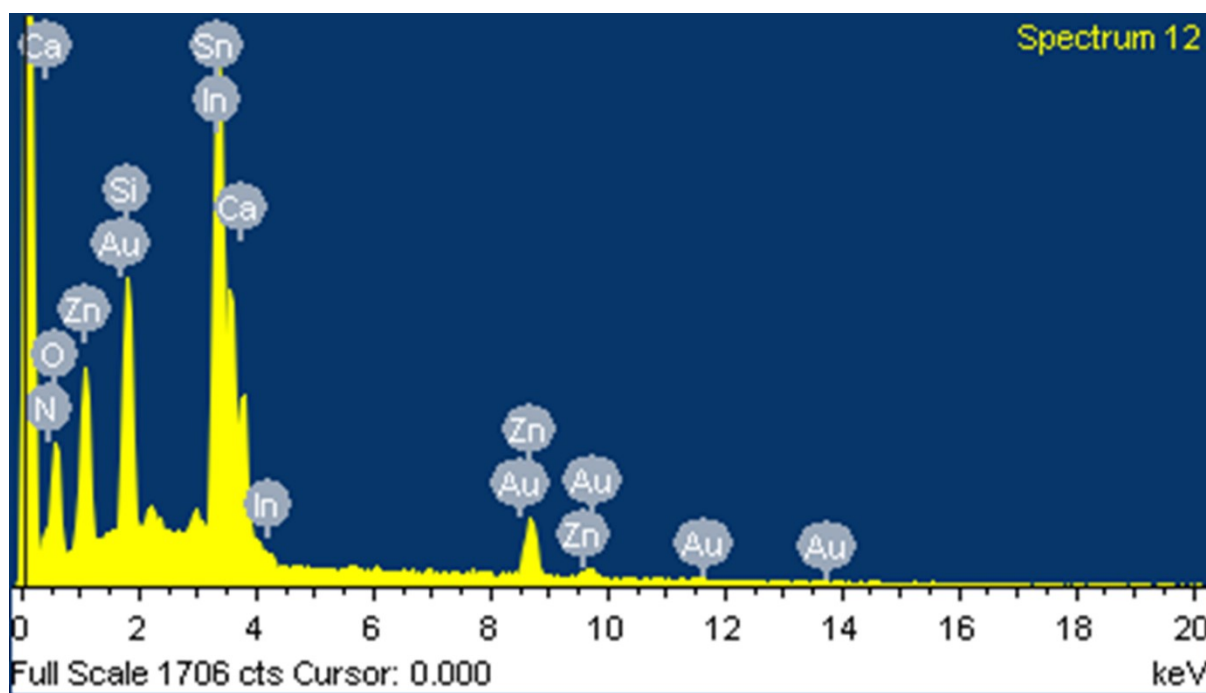


Fig. S4. EDAX spectrum of nanostructured N-ZnO

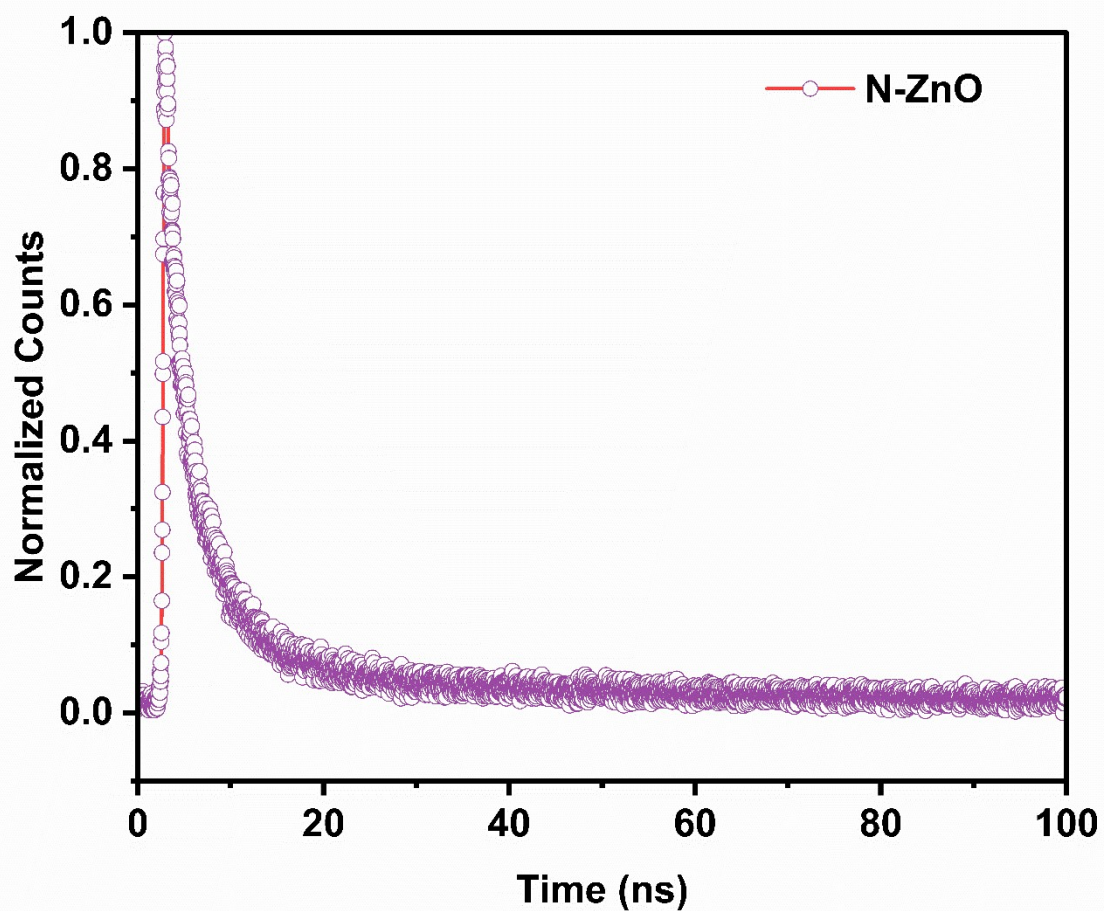


Fig. S5. Photoluminescence (PL) lifetime spectrum of nanostructured N-ZnO.

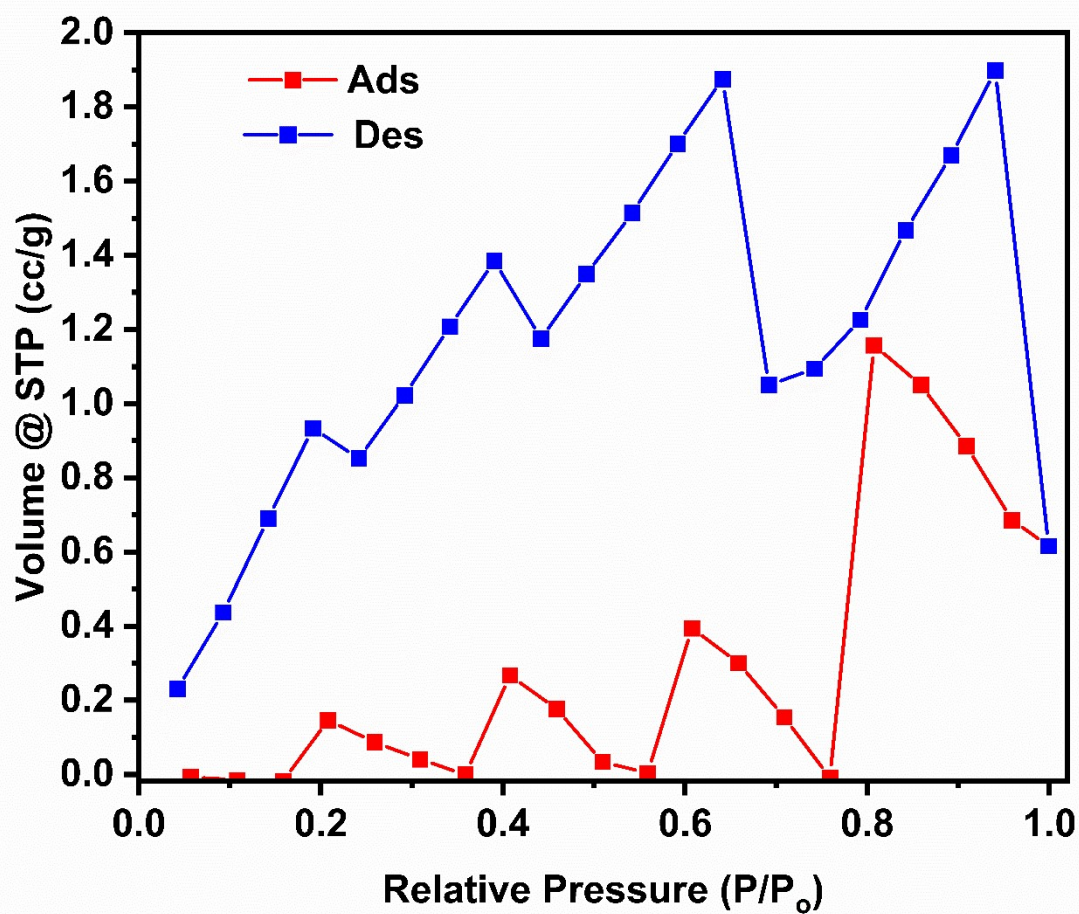


Fig. S6. BET analysis of nanostructured N-ZnO.

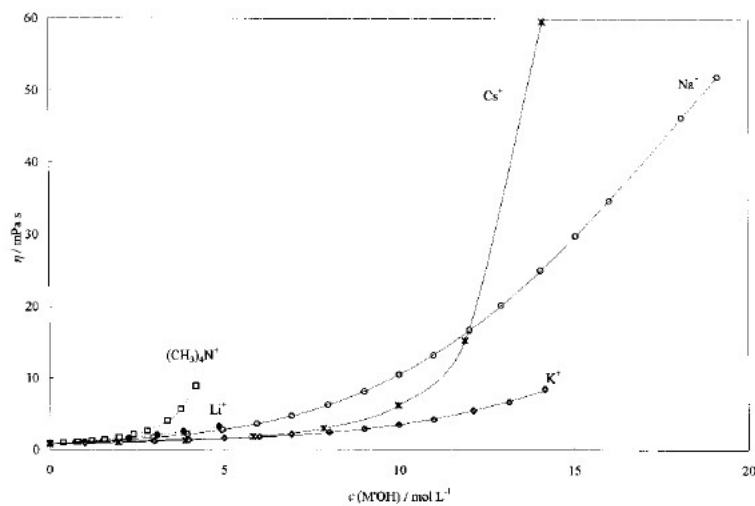


Fig. S7. Viscosities, η , of $M'OH$ ($M=K, Na, Cs$, and TMA) solutions at 25.0 °C as a function of the molar concentration, c .¹ [Copyright © 2000, American Chemical Society]

Table S1. Element composition of nanostructured N-ZnO

Element	Weight%	Atomic%
N K	13.55	24.28
O K	37.17	58.32
Si K	7.19	6.42
Ca K	1.98	1.24
Zn K	6.01	2.31
In L	31.45	6.87
Sn L	2.66	0.56
Totals	100.00	100.00

Table S2. Molar ratio of electrolytes at different pH

pH	Molar Concentration	
	KOH	NaOH
9	0.00001 M	0.00001 M
10	0.0001 M	0.0001 M
11	0.001 M	0.001 M
12	0.01 M	0.01 M
13	0.1 M	0.1 M
14	1.0 M	1.0 M

References

- 1 P. M. Sipos, G. Hefter and P. M. May, *Journal of Chemical & Engineering Data*, 2000, **45(4)**, 613-617.