

## SUPPLEMENTARY INFORMATION

### **Spectroscopic insights into the antibacterial and antifungal mechanism of ZnO nanoparticles green-synthesized from *Morinda citrifolia* leaf extract**

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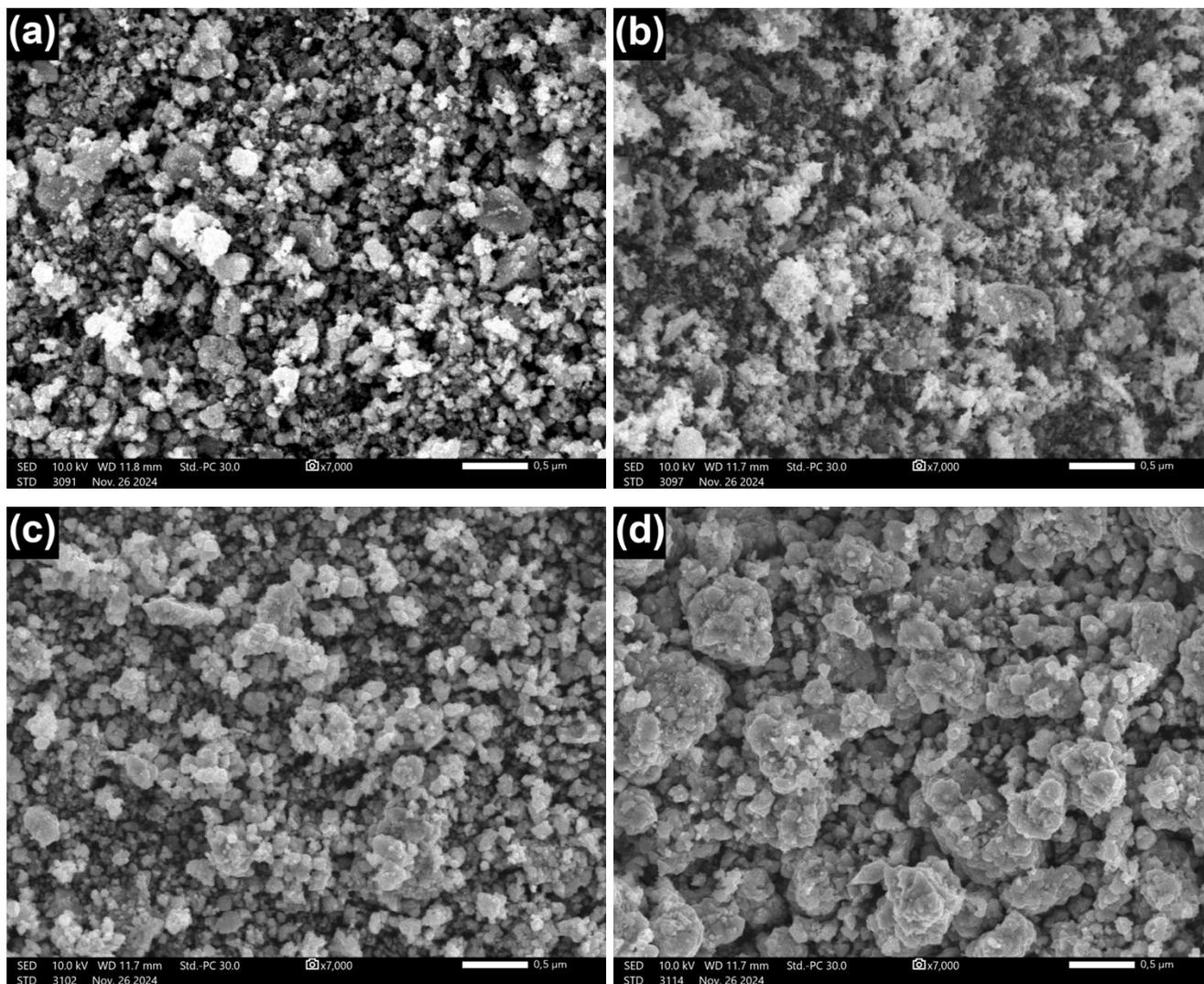
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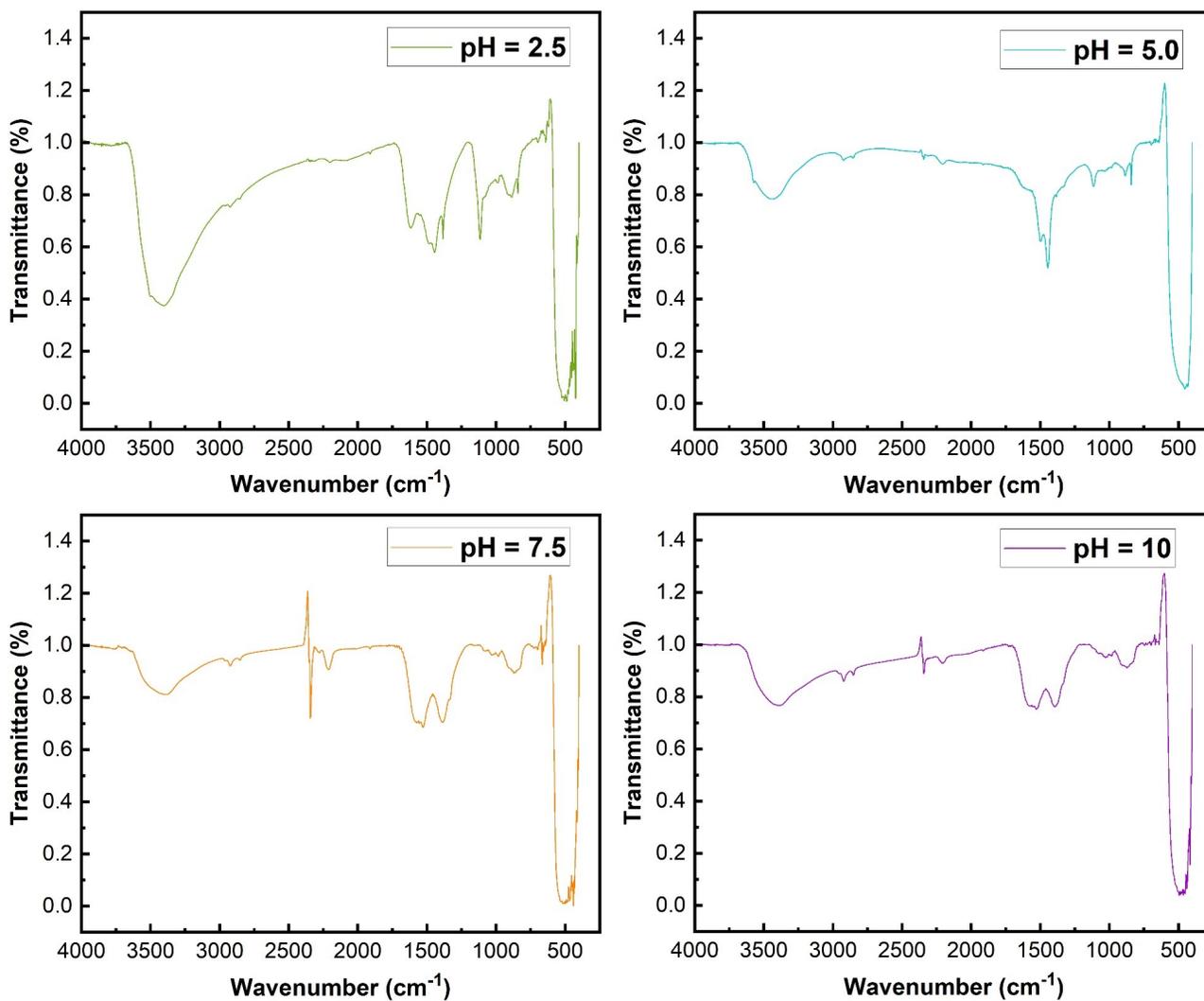
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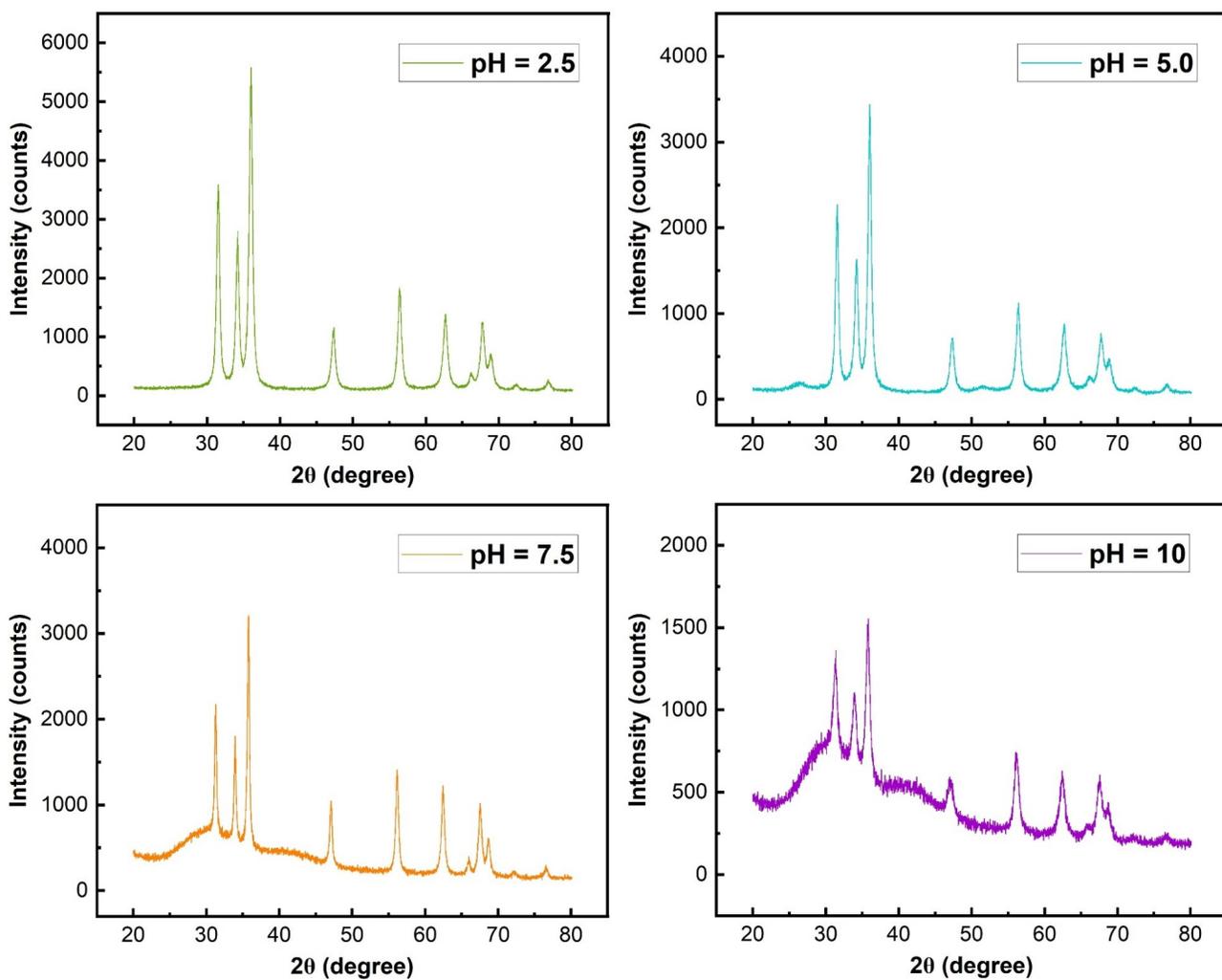
[pttanh@hcmus.edu.vn](mailto:pttanh@hcmus.edu.vn) (A.T.T. Pham)



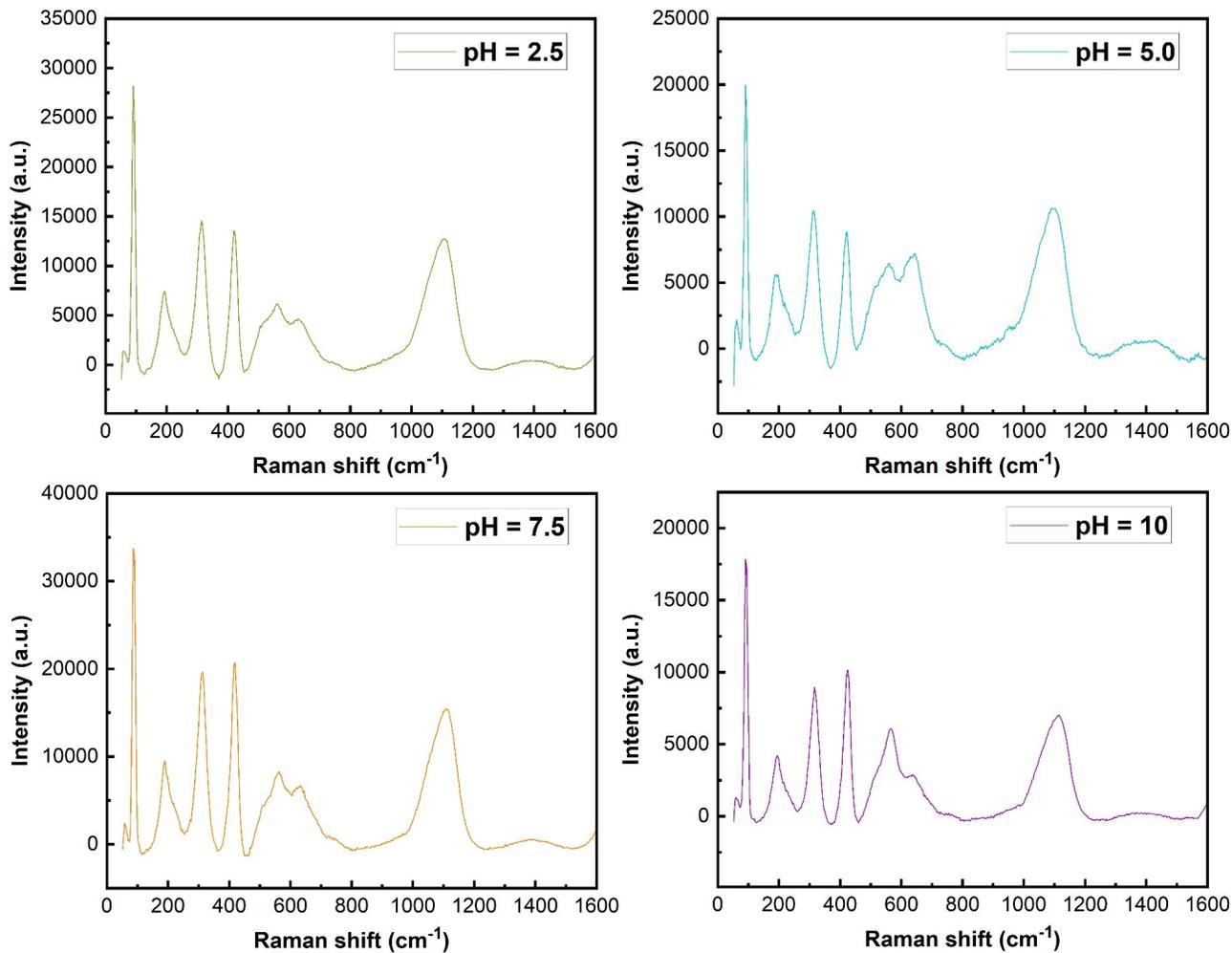
**Fig. S1.** Raw SEM images of ZnO NPs synthesized at different pH levels: (a) pH = 2.5, (b) pH = 5.0, (c) pH = 7.5, and (d) pH = 10.



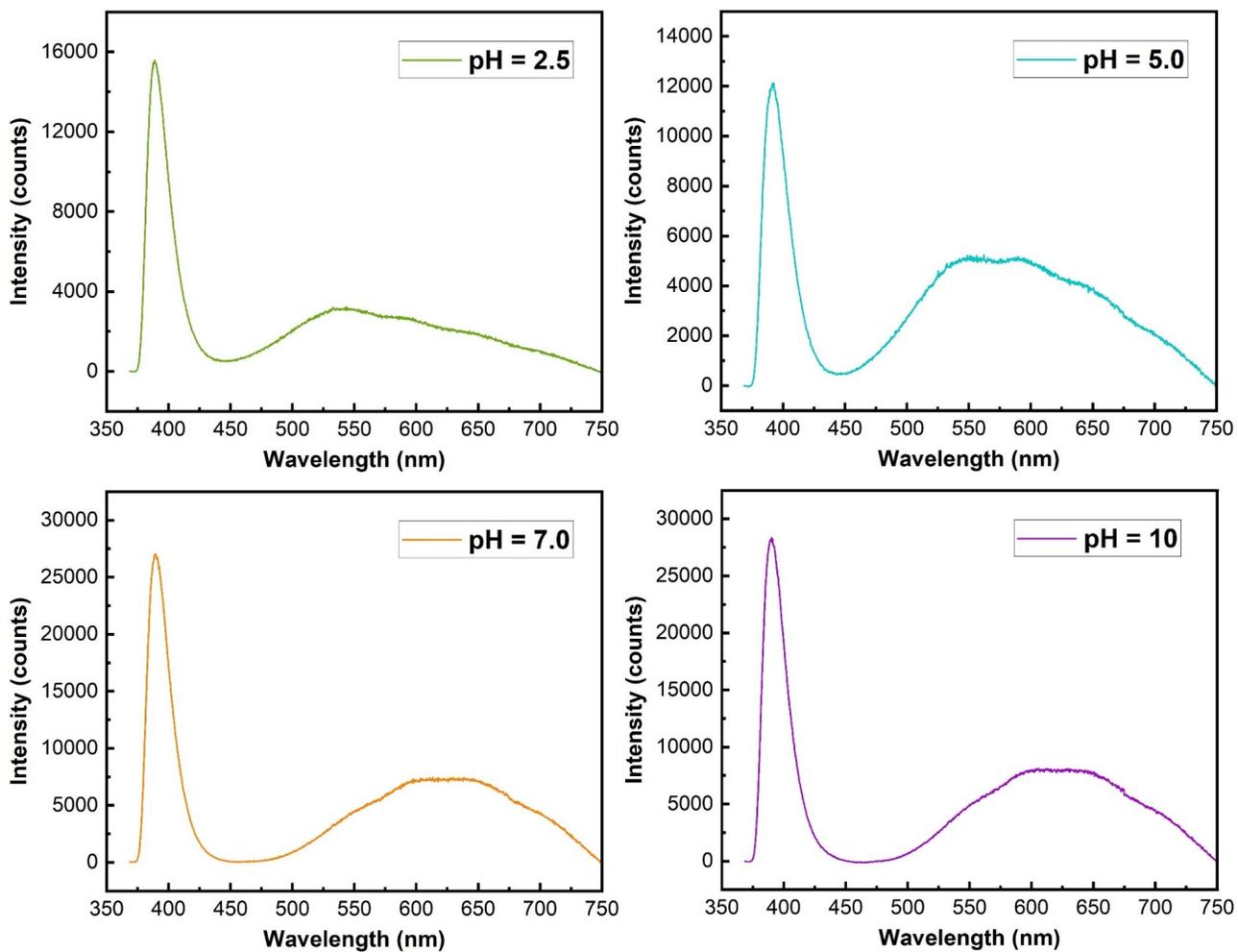
**Fig S2.** Raw FTIR spectra of ZnO NPs synthesized at different pH values.



**Fig. S3.** Raw XRD patterns of ZnO NPs synthesized at different pH values.



**Fig. S4.** Raw Raman spectra of ZnO NPs synthesized at different pH values.



**Fig. S5.** Raw PL spectra of ZnO NPs synthesized at different pH values.