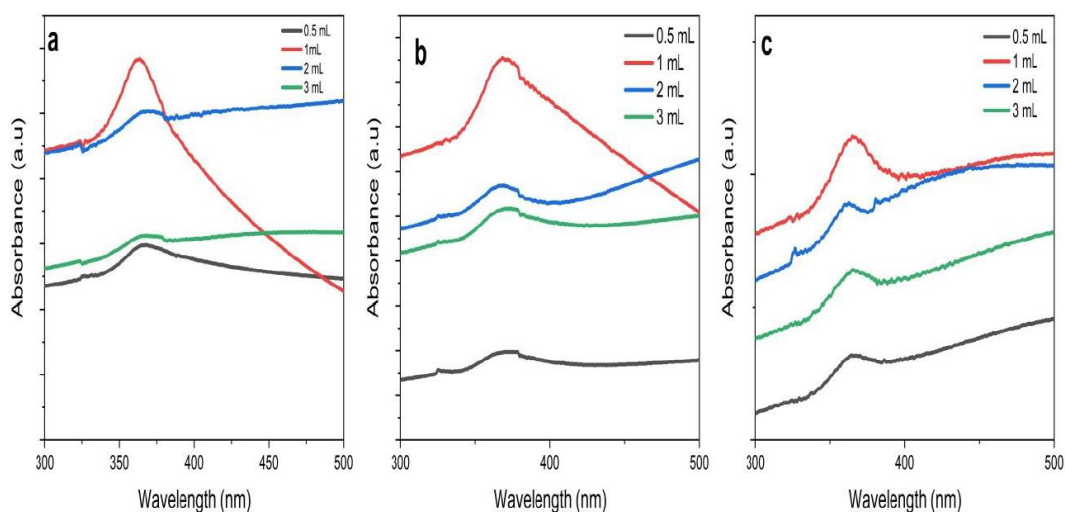
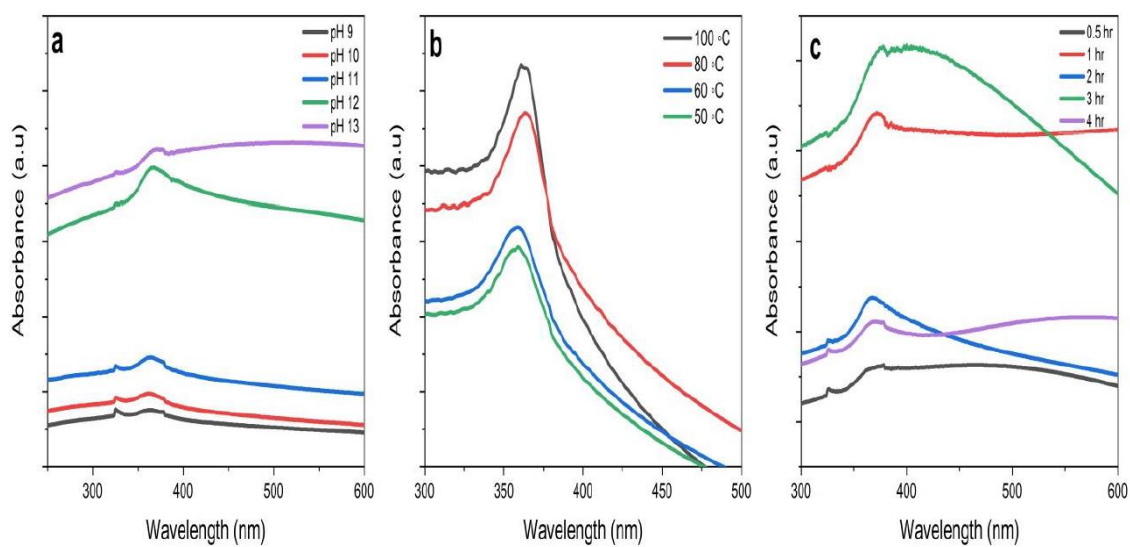


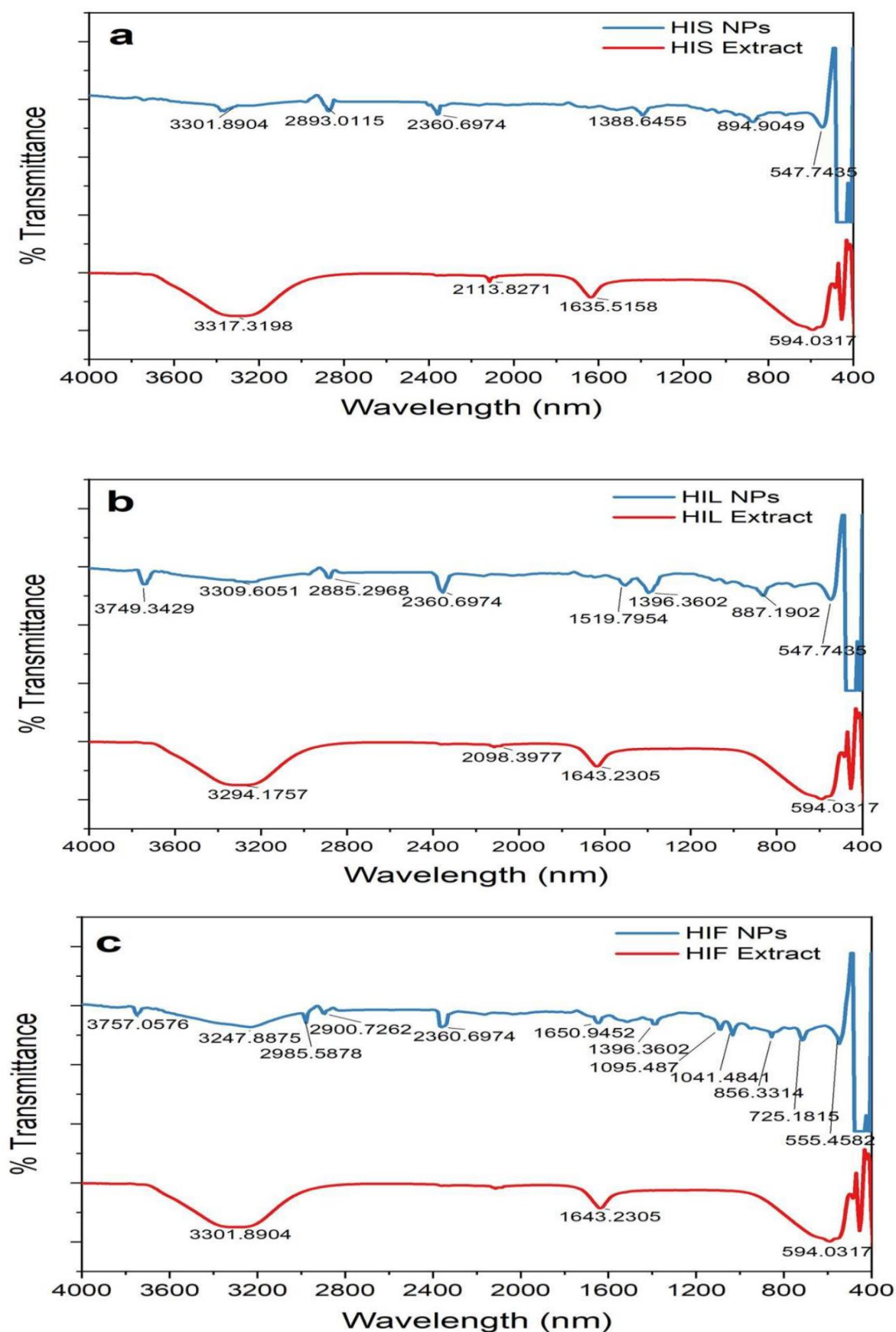
**Figure S1.** Effect of  $[\text{Zn}(\text{CH}_3\text{COO})_2] \cdot 2\text{H}_2\text{O}$  concentrations for the biosynthesis of ZnO NPs. (a) ZnO NPs/HIS; (b) ZnO NPs/HIL; (c) ZnONPs/HIF.



**Figure S2.** Effect of volume-dependent concentrations of plant extracts on ZnO NPs synthesis. (a) ZnO NPs/HIS; (b) ZnO NPs/HIL; (c) ZnO NPs/HIF.



**Figure S3.** Effect of critical physical parameters for ZnO NPs/HIS synthesis. (a) ZnO NPs/HIS; (b) ZnO NPs/HIL; (c) ZnO NPs/HIF.



**Figure S4.** FTIR spectrograms of plant part, and derived extract mediated ZnO NPs. (a) ZnO NPs/HIS; (b) ZnO NPs/HIL; (c) ZnO NPs/HIF.