Supplementary Data Section

Immobilization of Catalase on Chitosan/ZnO and Chitosan/ZnO/Fe_2O_3 Nanocomposites: A Comparative Study

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Table S1. The effect of ionic strength on the immobilization process

Concentration ZnO Np	Concentration Fe_2O_3 Np	Ionic strength	Immobilization yield (%)	Catalase activity u/g support	S.A U/mg protein
0.4g (20%)	0.0	pH 6	18	101	289
		pH 7	24	137	352
		pH 8	37	183.5	417
	0.2g (10%)	pH 6	71.15	254	532.8
		pH 7	76.25	314	614.5
		pH 8	84.32	500	885

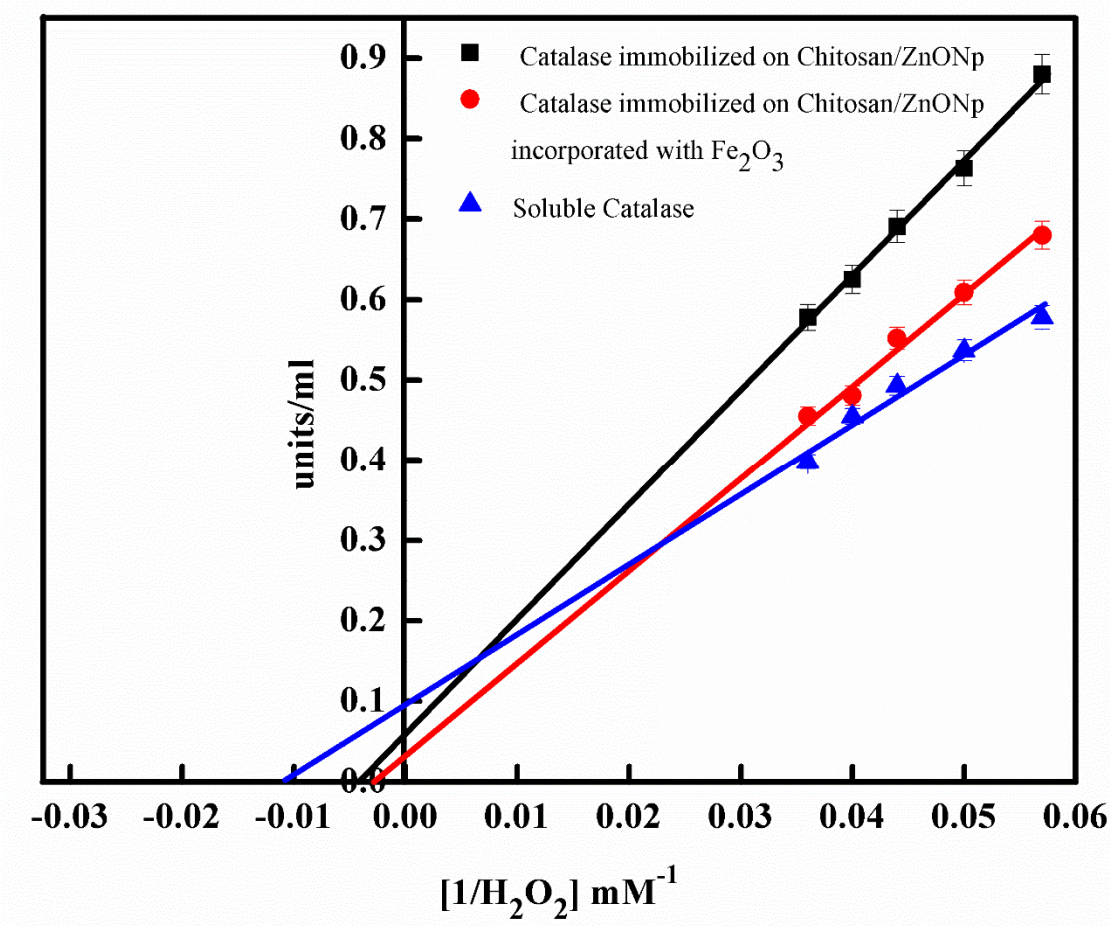

Figure. S1 Kinetic parameters of immobilized and free catalase. Each point represents the mean of three experiments ± SE.

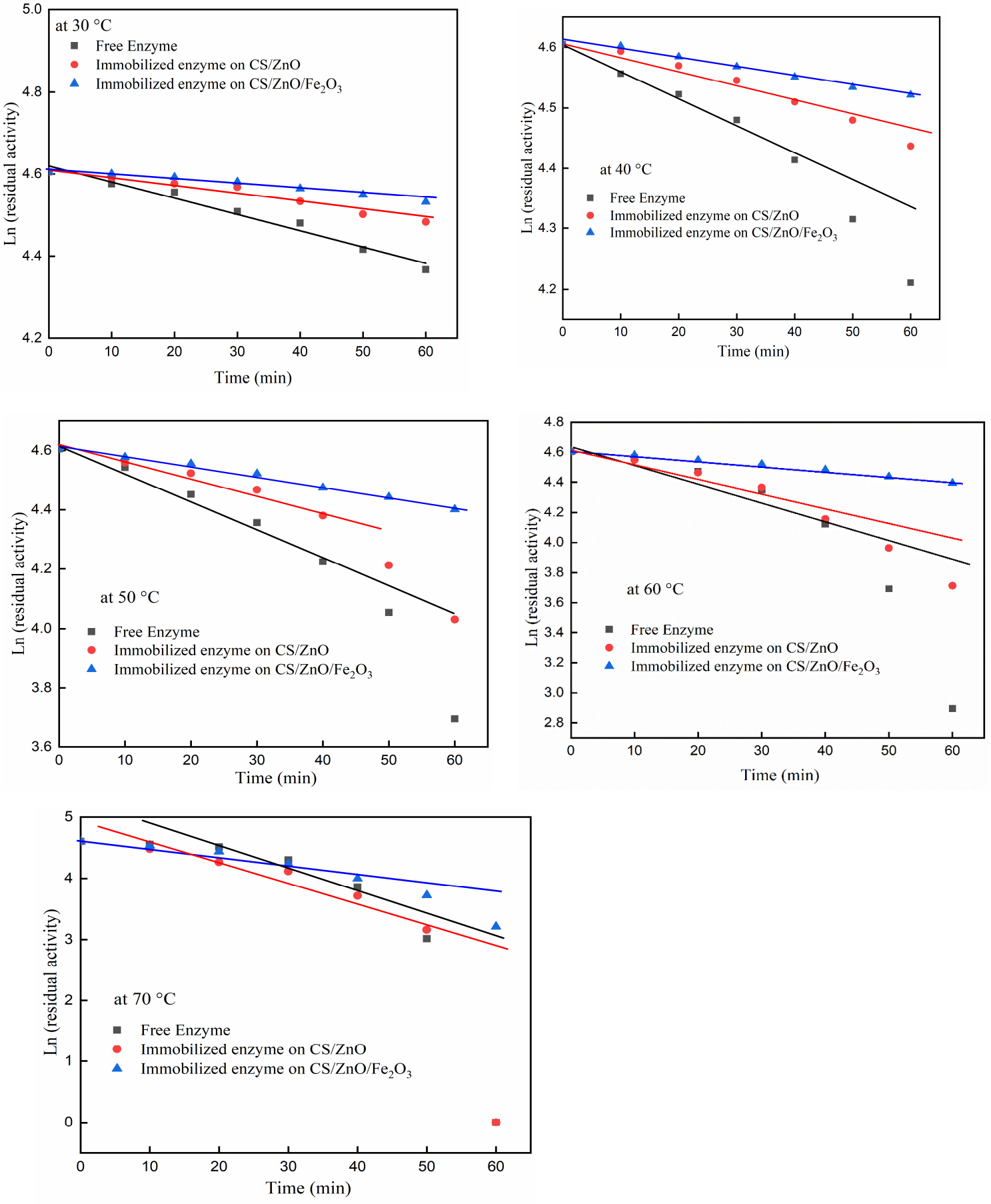

Figure. S2 Thermal stability and half-life for temperatures of 30 - 70 ^{0}C.

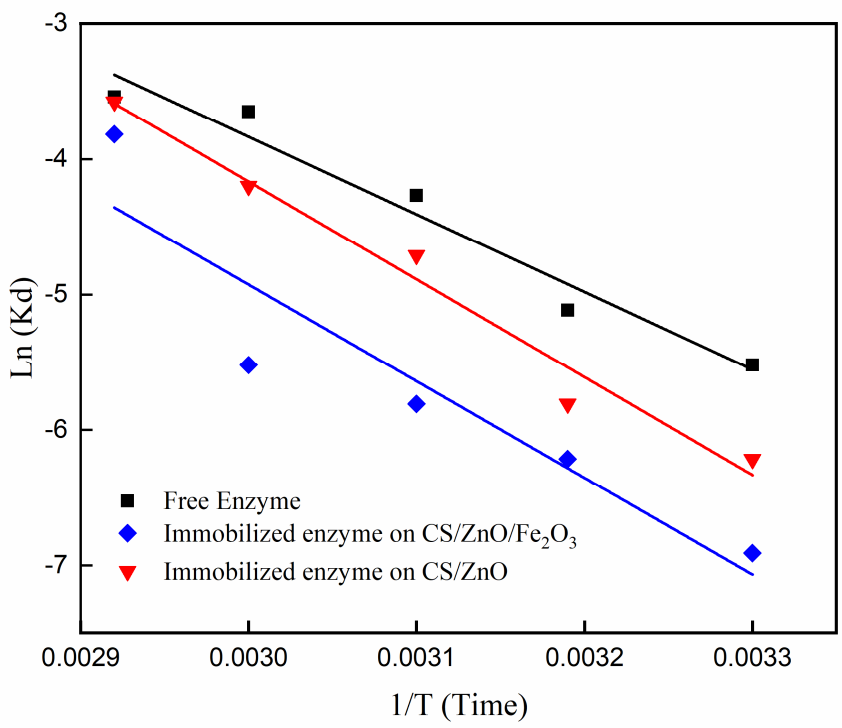

Figure. S3 Determination of the activation energy based on Arrhenius plots.

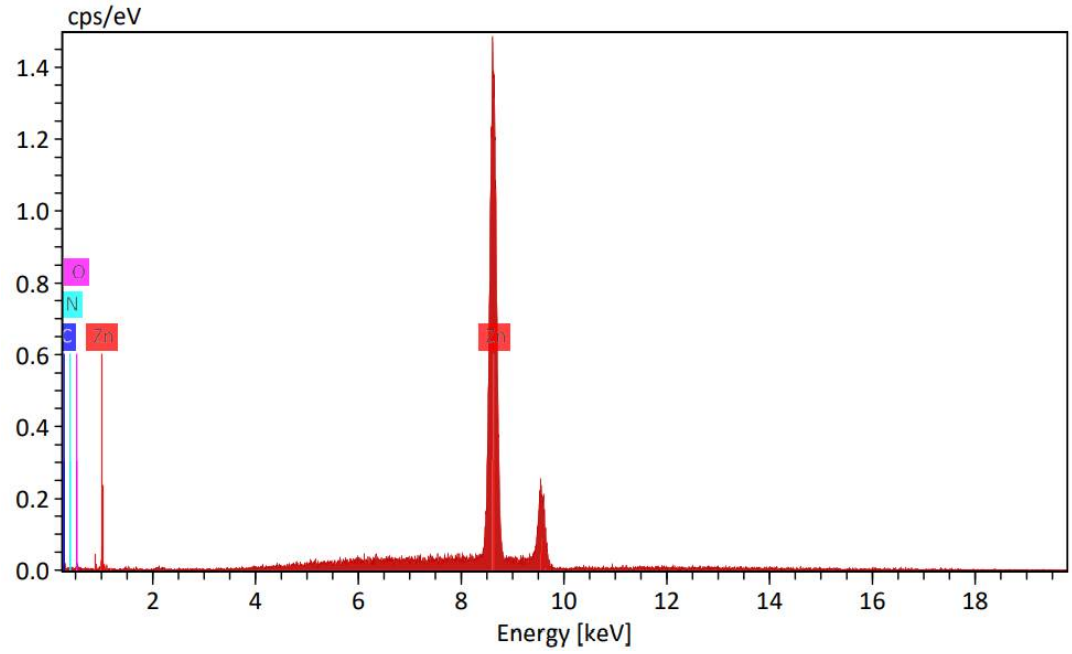

Figure. S4 EDX Analysis of sample **A.**

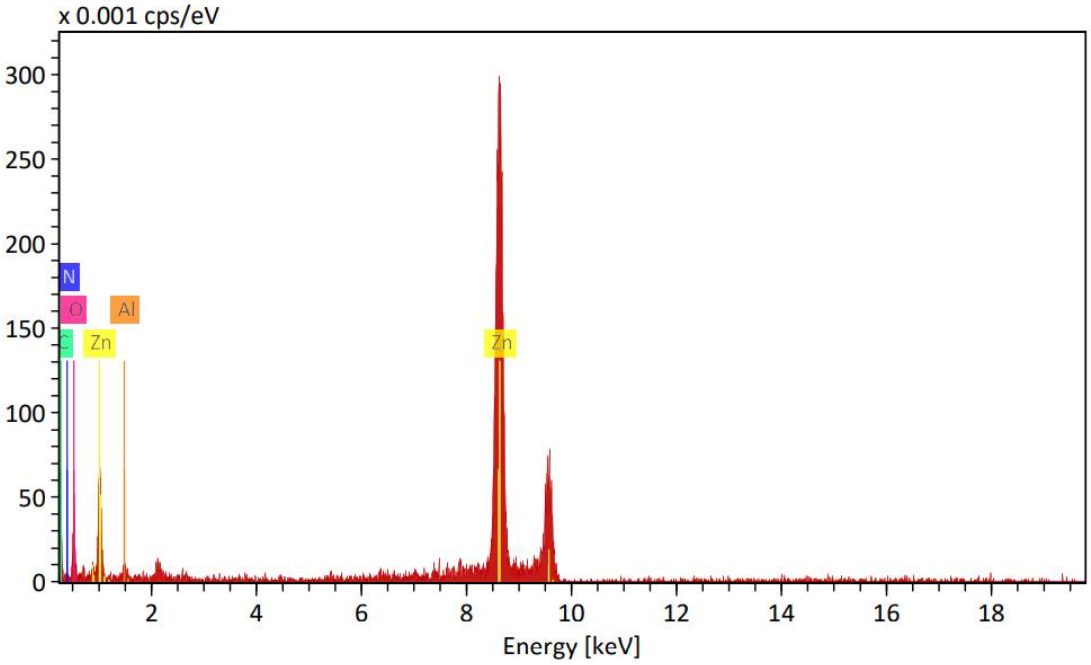

Figure. S5 EDX Analysis of sample **B**.

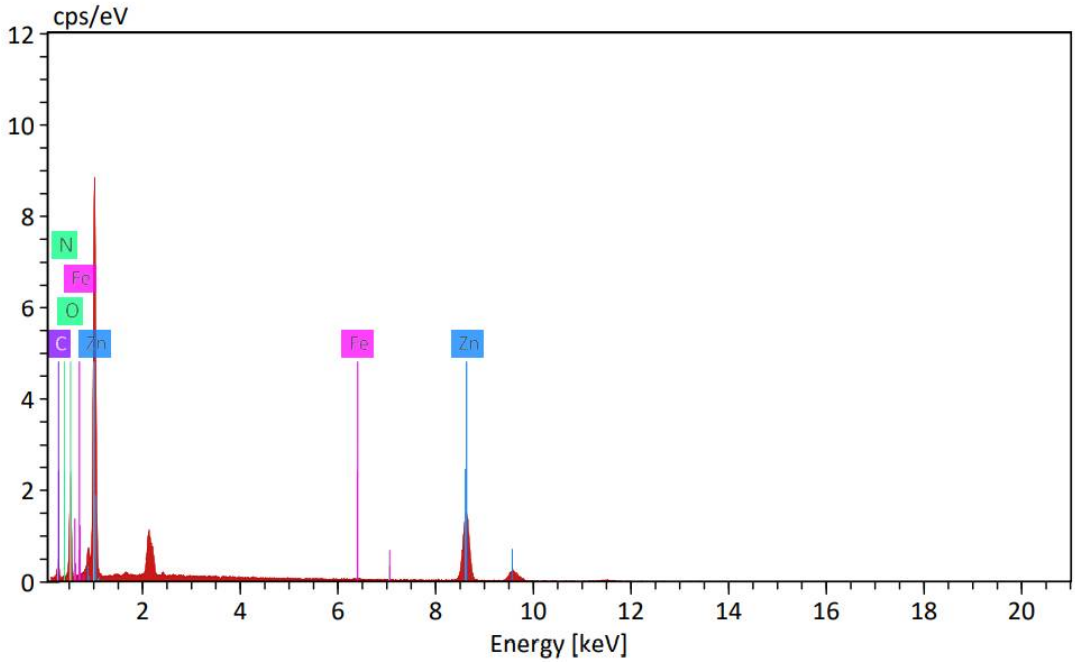

Figure. S6 EDX Analysis of sample **C**.

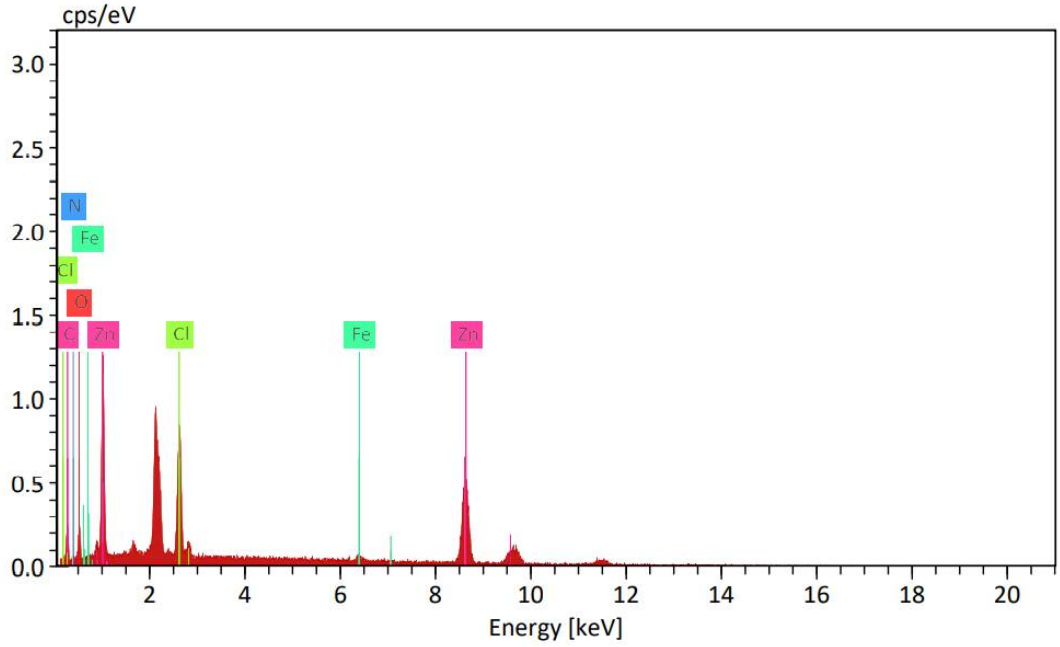

Figure. S7 EDX Analysis of sample **D**.