Supplementary Information

Colorimetric sensing of Chlorpyrifos through Negative Feedback inhibition of Silver Phosphate oxygenase Nanozymes Catalytic activity

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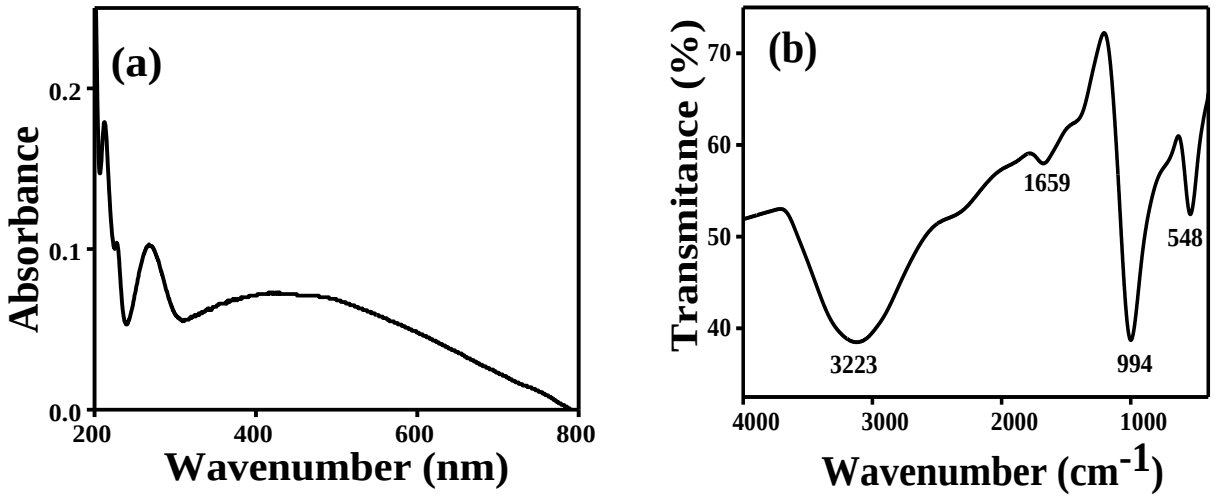


Figure S1:- (a) UV-Vis absorption spectra of Ag_3PO_4 NPs and (b) FTIR Plot of Ag_3PO_4 NPs

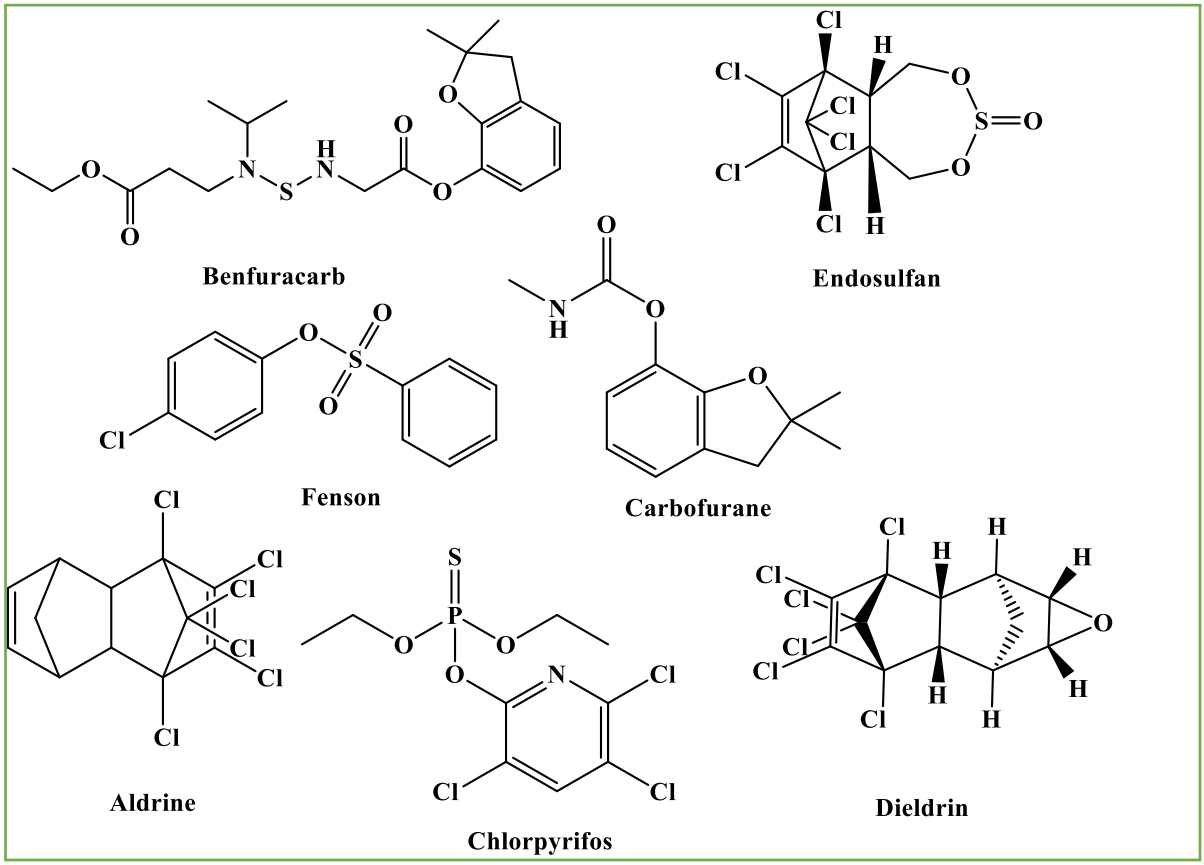
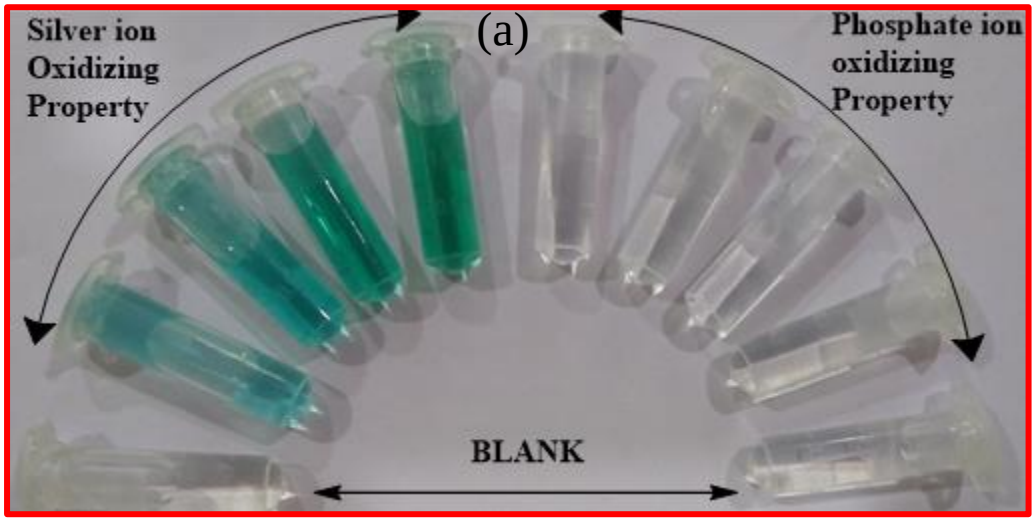


Figure S2:- All seven pesticide among these chlorpyrifor is selectively sensed and detected



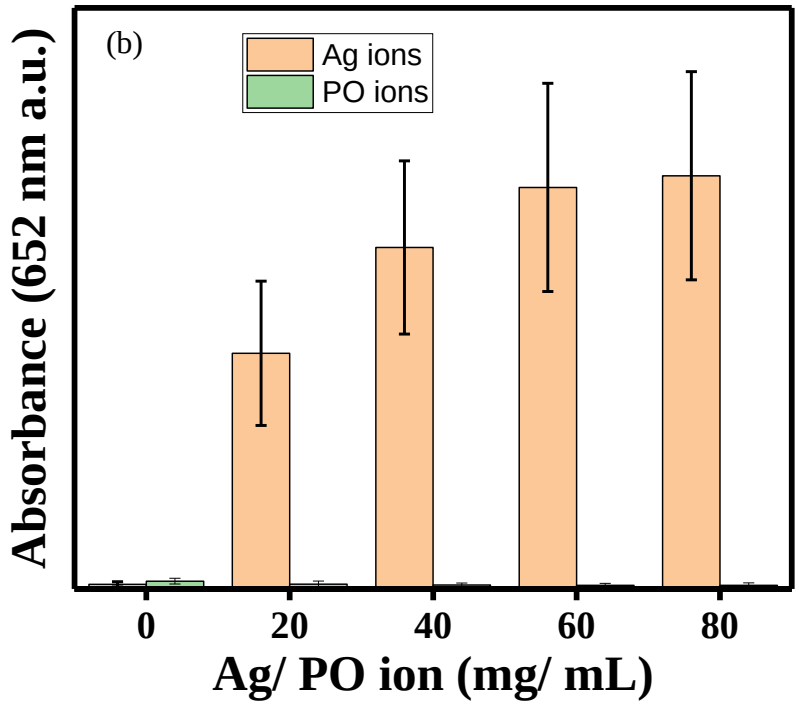


Figure S3:- (a) Digital picture for the oxTMB (blue colour) silver ion and phosphate ion oxidizing property with blank (b) Ag ion and PO ion graph for colorimetric sensing ability of ions

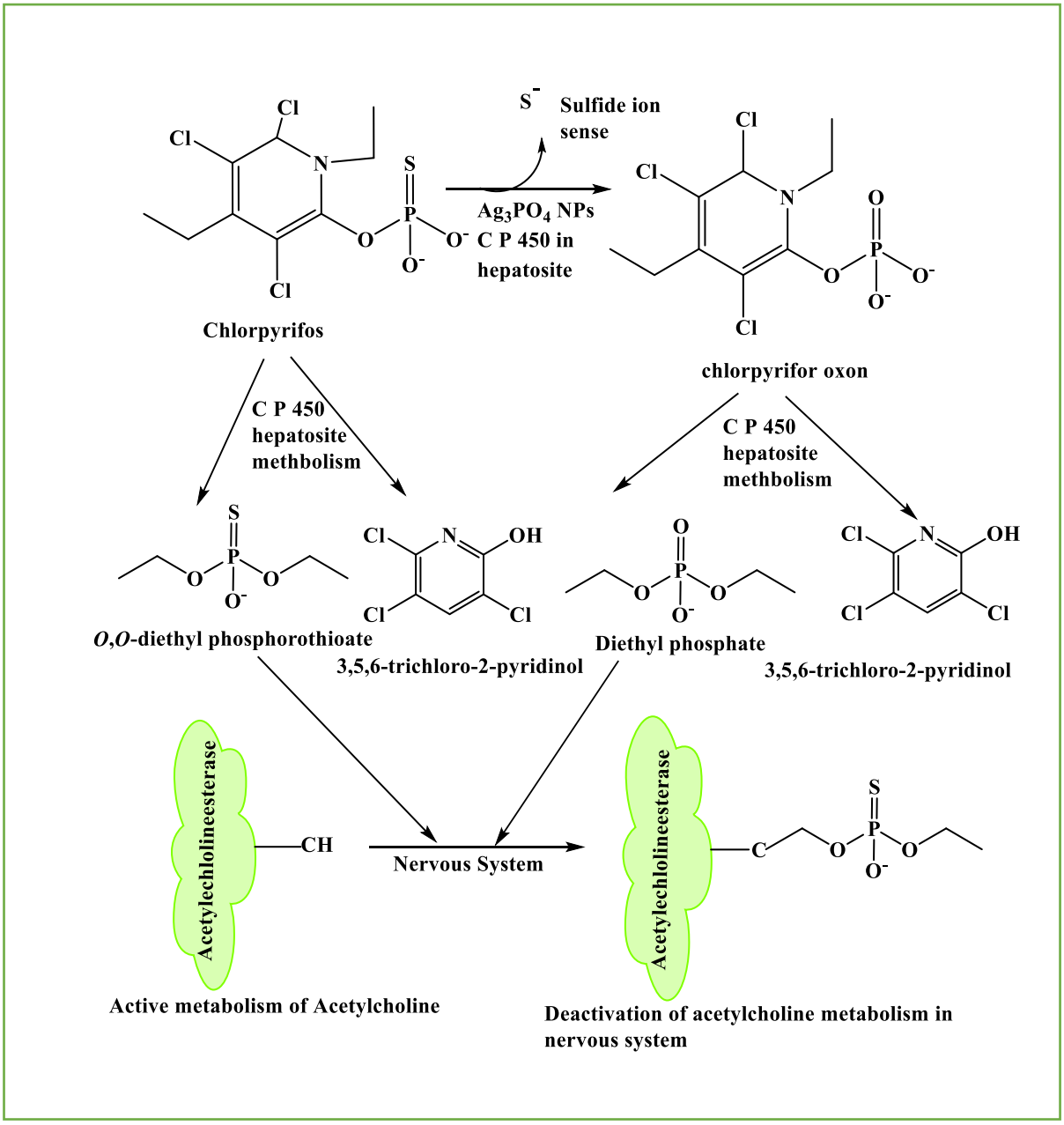


Figure S4:- Metabolism of chlorpyrifos in human liver (hepatocyte) through enzyme C P 450 (Cytochrome P 450) and inhibition of acetylcholinesterase to inhibit metabolism of acetylcholine in human nervous system throughout the body[1], [2], [3] .

References

1 A. L. Crane, K. Klein and J. R. Olson, *Xenobiotica*, 2012, **42**, 1255–1262.

2 V. Račáková, D. Jun, V. Opletalová and K. Kuča, *J. Appl. Biomed.*, 2006, **4**, 147–151.

3 A. L. Rathod and R. K. Garg, *J. Forensic Leg. Med.*, 2017, **47**, 29–34.