ACETYLCHOLINESTERASE ACTIVITY AND ENZYME KINETICS IN THE BRAIN OF A FRESH WATER TELEOST, CATLA CATLA (HAM.) SUBJECTED TO SUBCHRONIC AND ACUTE EXPOSURE TO MALATHON

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The present paper deals with inhibition of AChE activity of brain of Catla catla (Ham) due to acute and subchronic exposure to sub lethal concentrations of malathion. A significant, 63% inhibition was noticed for sub chronic exposure. For quantitative analysis of inhibitor and reaction mechanism, conventional Kinetic constants Kim, Vmax were determined through Lineweaver burk plot. Increased Kim value for increased concentration of pesticide and for exposure time indicates increased inhibition of enzyme. A constant Vmax value for both acute and subchronic exposure shows competitive nature of inhibition.

INTRODUCTION

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