Synthesis of Novel 4-Substituted-Piperazine-1-Carbodithioic Esters and Investigation of Their Inhibitory Activity against Cholinesterase Enzymes

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Carbamate derivatives inhibit the cholinesterase enzyme via carbamylation of the esteratic site. Thus, decrease of enzyme level in brain may be prevented [1]. Dithiocarbamate derivatives can act as cholinesterase inhibitors because of their structural similarity to carbamates. Hence, in the present work some novel 4-substituted-piperazine-1-carbodithioic esters were synthesized and their potency against cholinesterase enzymes were investigated. Structures of the final compounds were elucidated by ¹H-NMR, IR, MS spectroscopic methods and elemental analyses. In the series, some the compounds showed significant inhibitory potency.

References