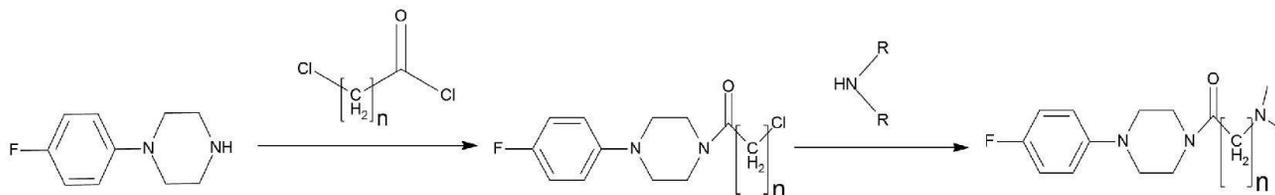


## SYNTHESIS AND BIOLOGICAL EVALUATION OF SOME NOVEL PIPERAZINE DERIVATIVES

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**ABSTRACT** In order to explore the anticonvulsant activity associated with the piperazine framework, several piperazine derivatives were synthesized. Variation in the functional group at N-terminal lead to the different compounds bearing amide. Their chemical structures were confirmed by  $^1\text{H}$  NMR, Mass, IR and elemental analysis. Synthesized derivatives were tested for the anticonvulsant and neurotoxicity activities by Maximal Electroshock Seizure (MES) and Rotarod methods respectively. Compounds II and IV showed good anticonvulsant activity with less neurotoxicity. The dose of 30 mg/kg body weight was more preferable for the use as anticonvulsant activity. All of the compounds showed significant anticonvulsant activity and some compounds showed neurotoxicity at the doses of 100 and 300 mg/kg bodyweight. The structures of newly synthesized compounds were assigned on the basis of different spectroscopic data.



**KEYWORDS** Piperazine; Neurotoxicity; anticonvulsant activity; spectral characterization.