



Synthesis of 1,2,4-triazole Derivatives and their Anticonvulsant Activity

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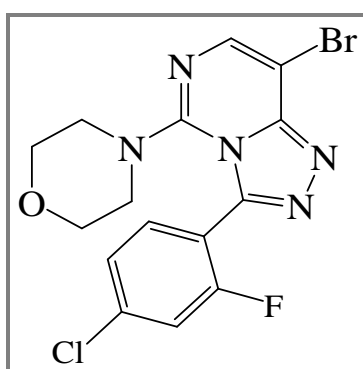
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Accepted on 2nd January, 2019

ABSTRACT

A synthesis of a series of 1,2,4-triazole derivatives (**5a-g**) have been accomplished in excellent yields by an oxidation of pyrimidinylhydrazines of various aryl carbaldehydes with iodobenzene diacetate. The chemical structures of the synthesized compounds were confirmed by FT-IR, ¹H NMR, ¹³C NMR and mass spectral studies. All the compounds were screened for their anticonvulsant activity against maximal electroshock (MES) seizure method and their neurotoxic effects were determined by rotarod test. Compound **5f** was found to be the most potent of this series. The same compound showed no neurotoxicity at the maximum dose administered (100 mg kg⁻¹).

Graphical Abstract



A series of 1,2,4-triazole derivatives (**5a-g**) synthesized among them **5f** was found to be most potent.

Keywords: Pyrimidine, Iodobenzene diacetate, Aldehydes, Characterization, Anticonvulsant activity.