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Synthesis and Evaluation of Antipsychotic and Anticonvulsant Activity of Indol-5-YL and Benzoxazepin-4-YL Carbazoles

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Abstract : Various 1-(substituted indolyldenylchalconyl) carbazole (**2a-2b**), 1-[2'-(5''-substituted indolyl)-1', 5'-benzoxazepinyl]-carbazoles (**3a-3b**) and 1-[2'-(5''-substituted indolyl)-3'-(2'''-substituted phenyl amino)-methyl-1', 5'-benzoxazepinyl]-carbazoles (**4a-4n**) have been synthesized according to scheme -1. These compounds were screened for antipsychotic and anticonvulsant activity as well as for acute toxicity. Compound **4dI.E.** 1-[2'-(5''-methoxy indolyl)-3'-(2'''',3''''- dichlorophenyl amino)-methyl-1', 5'-benzoxazepinyl]-carbazoles showed most promising antipsychotic and anticonvulsant activity with ALD₅₀ greater than 2000 mg/kg i.p. The structures of all the newly synthesized compounds were confirmed by elemental (C, H, N) and spectral (IR, ¹H-NMR and mass) analysis.

Keywords: Indol-5-yl benzoxazepin-4-yl carbazoles, Antipsychotic activity, anticonvulsant activity, acute toxicity.

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