



**Synthesis, Characterization and Antibacterial Evaluation of  
N-[arylmethylidene]-5-(aryloxymethyl)-1,3,4-thiadiazol-2-amine**

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**ABSTRACT**

*A series of N-[arylmethylidene]-5-(aryloxymethyl)-1,3,4-thiadiazol-2-amine (4) were synthesized by the condensation of different aldehydes with 5-(aryloxymethyl)-1,3,4-thiadiazol-2-amine (3) in presence of sodium acetate catalyst. 5-(aryloxymethyl)-1,3,4-thiadiazol-2-amine were inturn prepared by the reaction of aryloxyacetic acid with thiosemicarbazide in presence of phosphorous oxychloride. The newly synthesized compounds where characterized by analytical, IR, NMR and Mass spectral data. The results are in agreement with the assigned structure. Few compounds were screened for their antibacterial activities. Compounds containing chloro and citryl groups showed significant activity comparable with that of the standard drug.*

**Keywords:** Thiadiazole amine, Schiff Bases, Aryloxy acetic acid, Antibacterial activities.

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