



## Synthesis and Characterized of New Mannich Bases of Piperazine Derivative with Phenoxy Acetic Acid/ Butyric Acid Hydrazides

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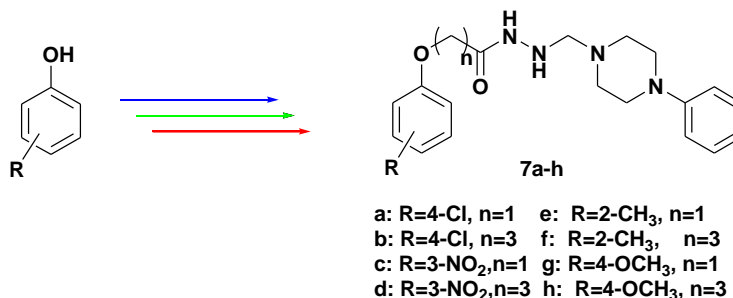
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### ABSTRACT

A new series of Mannich base by phenoxy-acetic/butyric acids *N'*-[(4-phenyl-piperazin-1-yl)-*o*-tolyl-methyl]-hydrazides (7a-h) were synthesized and characterized by IR, NMR and mass spectroscopy. The reaction of compounds 3a-h with hydrazine hydrate led to the formation of phenoxy-acetic/ butyric acid hydrazides 4a-h. The reaction of compound 4a-h with phenyl piperazine in the presence of formaldehyde afforded compounds 7a-h in good yields.

### Graphical Abstract



### Highlights

- A series of novel Mannich bases of phenyl piperazine bearing phenoxy acetic acid/ butyric acid hydrazides 7a-h were synthesized.
- Synthesized compounds were characterized by IR, Mass, and NMR spectral data.

**Keywords:** Piperazine, Mannich base, Synthesis, Characterization.