



Synthesis and Pharmacological Evaluation of some Novel Pyrimidine Derivatives

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Received on 4th September and finalized on 6th September 2013.

ABSTRACT

In the present research work, (2E)-3-(4-Methoxyphenyl)-1-(thiophen-2-yl)prop-2-en-1-one **1** was cyclised with thiourea to get 4-(4-Methoxyphenyl)-6-(thiophen-2-yl)pyrimidine-2-thiol **2**. The -SH group of **2** was methylated to afford 4-(4-Methoxyphenyl)-2-(methylsulfanyl)-6-(thiophen-2-yl) pyrimidine **3** which underwent nucleophilic substitution with hydrazine hydrate to get 2-Hydrazinyl-4-(4-methoxyphenyl)-6-(thiophen-2-yl) pyrimidine **4**. Condensation of **4** with different aldehydes yielded corresponding Schiff's bases 2-[substitutedhydrazinyl]-4-(4-methoxyphenyl)-6-(thiophen-2-yl)pyrimidines **5a-e**. The compound **4** was acylated to get compounds N'-[4-(4-methoxyphenyl)-6-(thiophen-2-yl)pyrimidin-2-yl]substitutedhydrazides **6a-e**. Structure confirmation was accomplished by spectral studies (IR, ¹HNMR, Mass) and elemental analysis of all the synthesized compounds. Some selected compounds were screened for antibacterial and antioxidant activities.

Keywords: Thiophene, methoxyphenyl, thiourea, antibacterial activity, antioxidant.
