



An Efficient Method for the Synthesis of α -Furfural Aryl-N-Aryl Nitrones and their Antimicrobial Activities

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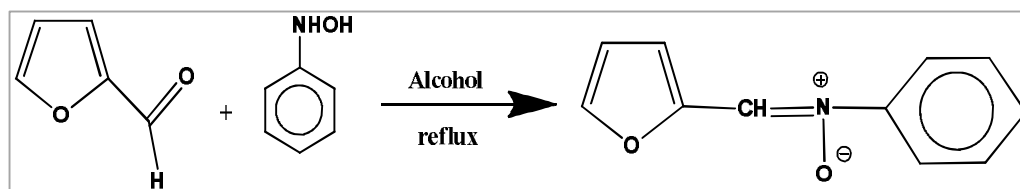
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ABSTRACT

In organic chemistry, the synthesis of nitrones being a significant compound and highly useful in numerous applications of heterocyclic compounds via 1,3 dipolar cycloaddition reactions. The present research aims to synthesize the newly developed compound called α -Furfural aryl-N-aryl nitrone [N-(furan-2-ylmethylene) aniline oxide] under the simplest and eco-friendly method. The nitrone has been obtained from commercially available aldehyde and freshly prepared phenyl hydroxyl amine in presence of ethanol which gives an excellent yield. All of the synthesized compounds were characterized with the help of ^1H and ^{13}C NMR spectra. The synthesized nitrones were also found to get a good result in antimicrobial activities.

Graphical Abstract:



Synthesis of α -Furfural aryl-N-aryl nitrone.

Keywords: Nitrone, Furfuraldehyde, Phenyl hydroxyl amine, Anti-microbial activities.