

*Synthesis and Identification
New Ketonitrones and
Biological Study Some of
Them*

*A Thesis
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for
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Chemistry*

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Summary

This thesis attempted new route to synthesize and characterize some new ketonitrone compounds derived from different substituent of acetophenone .One model of the prepared ketonitrone was selected for the cyclic addition reaction by using symmetrical alkyne .

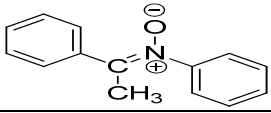
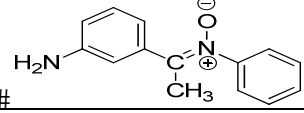
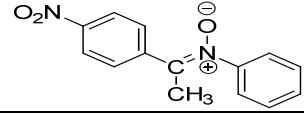
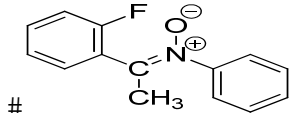
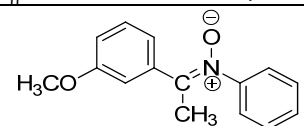
The thesis concerned with three chapters. The first of all is concerned with literature survey about synthesis, chemical and physical properties of nitrones and the cyclic additions of these compounds .

Chapter two describes the synthesis of new nitrone compounds by reaction of prepared oxime compounds from different substituent of acetophenone with diphenyl acetylene in addition to the normal method which included the reaction of acetophenone and its substituent with phenyl hydroxyl amine but their preparation was very difficult .

Cyclic addition was carry out on one of the prepared nitrones { *α-1-(3-Methoxy-phenyl) ethylidene-N-phenyl nitrone* } in order to verify the ability of its cyclic addition.

Chapter three view the mechanisms of reaction of the synthesized compounds. Also this chapter includes characterization of the prepared compounds by used CHN elemental analysis, ultraviolet, infrared and nuclear magnetic resonance technique. The configurations of all nitrones were determined by theoretical studies. The biological activity was also studied in this chapter and all nitrones showed high tendency against Gram-negative and Gram-positive Bactria.

The structures of the prepared compounds are summarized as follows :-

Symbol	Formula of the nitrones & isoxazole	Names of nitrones & isoxazole
M_1		α - (phenyl ethylidene)-N-phenyl nitrone
M_2		α - (3-Amino- phenyl) ethylidene-N-phenyl nitrone
M_3		α - (4-Nitro- phenyl) ethylidene-N-phenyl nitrone
M_4		α - (2-Fluoro- phenyl) ethylidene-N-phenyl nitrone
M_5		α - (3-Methoxy- phenyl) ethylidene-N-phenyl nitrone

N_1		α - (phenyl ethylidene)-N-(1,2-diphenyl ethylene) nitronium
N_2		α - (4-Bromo- phenyl) ethylidene-N-(1,2-diphenyl ethylene) nitronium
N_3		α - (4-Methyl- phenyl) ethylidene-N-(1,2-diphenyl ethylene) nitronium
N_4		α - (4-Amino- phenyl) ethylidene-N-(1,2-diphenyl ethylene) nitronium
N_5		α - (4-Nitro- phenyl) ethylidene-N-(1,2-diphenyl ethylene) nitronium
N_6		α - (2-Fluoro- phenyl) ethylidene-N-(1,2-diphenyl ethylene) nitronium
N_7		α - (3-Methoxy- phenyl) ethylidene-N-(1,2-diphenyl ethylene) nitronium
N_8		α - (4-Chloro- phenyl) ethylidene-N-(1,2-diphenyl ethylene) nitronium
N_9		α - (2-Hydroxy- phenyl) ethylidene-N-(1,2-diphenyl ethylene) nitronium
C		2-phenyl-3-methyl-3-(3-methoxy phenyl)-4,5-diphenyl-2,3-dihydro isoxazole #