

**SYNTHESIS OF NAPHTHOQUINONE DERIVATIVES WITH SOME STUDY ON
PERCENTAGE RATE OF FORMATION FOR PYRIDINIUM SALT**

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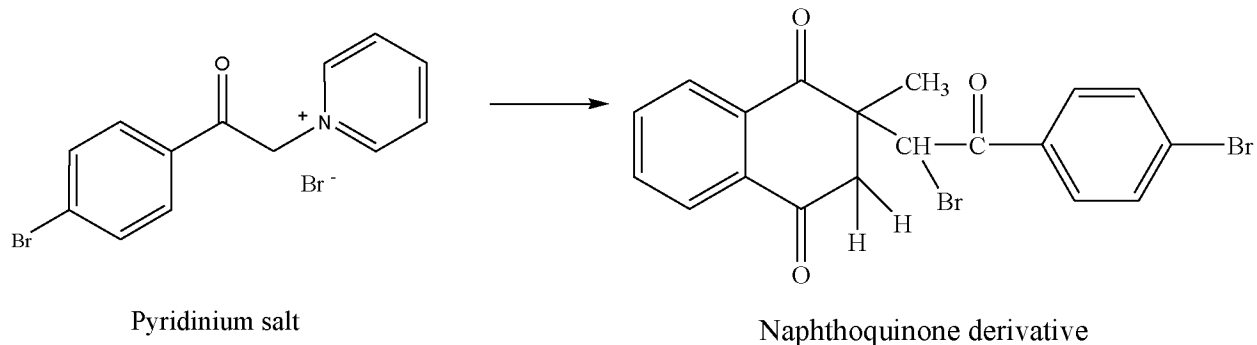
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NH ₃	:	ammonia
S	:	singlet
THF	:	Tetrahydrofuran
TLC	:	Thin Layer Chromatography
UV	:	Ultraviolet
h	:	hour(s)
t	:	triplet

ABSTRACT

SYNTHESIS OF NAPHTHOQUINONE DERIVATIVES WITH SOME STUDY ON PERCENTAGE RATE OF FORMATION FOR PYRIDINIUM SALT

The focus of this study is to synthesize the naphthoquinone derivative via the reaction of pyridinium salt with methyl naphthoquinone. The starting material 2,4-dibromoacetophenone reacted with pyridine to produce pyridinium salt in 96.29% yield. The further reaction was done, producing naphthoquinone derivative in 25.71% yield in the mixture of isomer red and yellow compounds. The product consists isomer of two compounds was separated using column chromatography. The isolated red and yellow compounds was characterized using IR and NMR analysis. The study on the times of refluxing was also performed in order to determine the optimum time of salt formation. The formation of pyridinium salt is directly proportional with time of refluxing.



CHAPTER 1

INTRODUCTION

1.1 Antibiotic

Antibiotic is a drug that kills or slows the growth of bacteria. Some specific antibiotics target both gram-negative or gram-positive bacteria, and other nonbacterial infections. The effectiveness of individual antibiotics varies with the location of the infection and the ability of the antibiotic to reach this site. Penicillin is the effective antibiotic that was firstly discovered in 1986 by French Physician, Ernest Duchesne. He noted that certain penicilium molds were able to killed bacteria (Anon., 2010).

Antibiotic had been classified through their mechanism of action. There are antibiotics which interfere with cell-wall synthesis like beta lactams such as penicillin, and monolactams like vancomycin and bacitracin. There are also antibiotics which interfere with