

## **Dedication**

*We dedicate this graduate project to our dear  
mothers and fathers*

*to our sisters and brothers*

*to our friends*

*to everyone who taught us through our  
educational levels*

*to each of you ,without your support ,this  
dream would not have come true.*

## **Acknowledgment**

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## Abstract

In this work, 2-{5-[(2-phenylhydrazinylidene)methyl]furan-2-yl}naphthalene-1,4-dione and 2-{4-[(2-phenylhydrazinylidene)methyl]phenyl}naphthalene-1,4-dione have been synthesized by reaction of 1-(furan-2-ylmethlidene)-2-phenylhydrazine and 1-benzylidene-2-phenylhydrazine as hydrazones with 1,4-naphthoquinone according to a well documented procedure. Access to furylnaphthoquinones from un activated quinones requires acid-inuced conditions, however oxidation coupling reaction of activated quinones proceed under neutral condition. The hydrazones were prepared from the commercially aldehydes and phenyl hydrazine.

## Abbreviations

symbol	Meaning of Abbreviation
AIDS	Acquired immunodeficiency syndrome
AMV	Avian myeloblastosis Virus .
AMVRT	Avian myeloblastosis virus reverse transcriptase.
<sup>13</sup> C-NMR	Carbon-13 Nuclear magnetic resonance
DDQ	2,3-Dichloro-5,6-dicyano -1,4- benzoquinone .
DNA	Deoxyribonucleic Acid .
GC-MS	Gas chromatography –Mass spectrometer
HIV -1	Human immunodeficiency virus type 1
HIV-2	Human immunodeficiency virus type 2
HIVRT	Human immunodeficiency virus reverse transcriptase
<sup>1</sup> H-NMR	Proton(1) Nuclear magnetic resonance
HPLC	High performance liquid chromatography
IR	Infrared
RT	Reverse transcriptase
STN	Streptonigrin

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