

ANALYSIS OF n-HEXANE EXTRACT FROM LEAVES OF *CEDRELA TOONA* FOR ITS MEDICINAL POTENCY



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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

*Then let man look at his food, for that
We pour water in abundance; and We
split the earth in fragments, and
produce therein corn, and grapes and
nutritious plants and olives and dates,
and enclosed gardens dense, with lefty
trees, and fruits and fodder, for us and
convenience to you and your cattle.*

(Al-Quran)

Lord Muhammad (peace be upon him) said,

“The Calamity of Knowledge is forgetfulness; and to lose knowledge is this, to speak of it to the unworthy.

Who are the learned? Those who practice what they know”.

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*Then the trembling lips and wet eyes praise the greatest man of Universe, the last messenger of **ALLAH, Hazrat MOHAMMAD (P.B.U.H.)**, whom **ALLAH** has sent as mercy for worlds, the illuminating torch, the blessing for the literate, illiterate, rich, poor, powerful, weaker, able and disabled.*

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Despite these acknowledgements the weaknesses and limitations of this thesis are remain all mine.

ANAM MUSHTAQ

ABSTRACT

Medicinal plants are the backbone in the treatment of the traditional medicine. *Cedrela Toona* has been used for various ailments. *C.Toona* belongs to the family *Meliaceae* which has significant medicinal values. Traditionally, it is useful in chronic dysentery, ulcer, cures fever, headache, blood complaints, cardiogenic, aphrodisiac, anthelmintic, good for scabies and expectorant. The various parts of the plant have been explored for antioxidant, analgesic, antifeedant, antiulcer, antimicrobial and many other activities. The present study was undertaken to find out the antibacterial activity and evaluation of the compounds, which present in its non-polar profile. The inhibition zone diameters and minimal inhibition concentrations (MIC) against three tested bacteria are studied in antibacterial activity.

Phytochemical compounds were carried out by molecular ion peak, base peak, and fragmentation pattern. GC-MS analyses show that major components comprising is detected in this plant extract for the first time are ketones, ether, fatty acid derivatives, Phthalic acid, p- Toluylic acid, Benzoic acid. 2-formyl-4, 6-dimethoxy, 1, 1'-Bicyclohexyl-4-carboxylic acid, 1-Mono linoleoylglycerol trimethylsilyl ether, and 1, 3-Benzenediol.

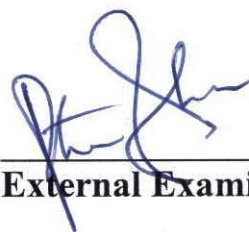
Results of antibacterial activity of hexane extract showed that *C.Toona* possess less resistance against the pathogenic bacteria. This study will also indicate that hexane extract of *C.Toona* was more potent against the Gram-negative than the Gram-positive bacteria. This study will be useful to explore the pharmacological and biosynthetic activity of plants for drug discovery

RESEARCH COMPLETION CERTIFICATE

Certified that the research work contained in this thesis titled, "Analysis of n-hexane extract from leaves of Cedrela Toona for its medicinal potency" has been carried out and completed by **Anam Mushtaq**, ID: 13001140039 . The quantum and the quality of the work contained in this thesis is adequate for the award of Degree of MS/M.Phil.



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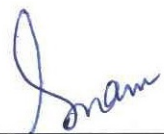
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Session **2013-2015** hereby declare that the matter printed in the thesis titled “ **Analysis of n-hexane extract from leaves of Cedrela Toona for it medicinal potency**” is my own work and has not been printed, published and submitted as research work, thesis or publication in any form in any University, Research institution etc. in Pakistan or Abroad.

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CONTENTS

CHAPTER 1: INTRODUCTION

1.1. Introduction	1
1.2. Family Meliaceae	2
1.2.1. Morphological Aspects	2
1.2.2. Important Genra of family Meliaceae	
1.3. Genus Toona	2
1.3.1. Morphological Aspects of Genus Toona	3
1.3.2. Important species of Genus Toona	3
1.3.3. Importance of Genus Toona	4
1.3.4. Medical importance of Toona	4
1.3.5. Economic Importance	5
1.4. Cedrela Toona	5
1.4.1. Introduction	5
1.4.2. Vernacular Names	6
1.4.3. Distribution and Habitat	8
1.4.4. Morphological Aspects	8
1.5. Importance of Cedrela Toona	8
1.5.1. Medical Importance	8
1.6. Secondary Metabolites	8
1.6.1. Polar Secondary Metabolites	9
1.6.2. Saponins	9
1.6.3. Alkaloids	9
1.6.4. Flavonoids	9
1.7. Non-polar metabolites	10
1.7.1. Lipids	10
1.7.2. Fatty Acid	10
1.7.3. Wax	10
1.7.4. Steroids	11
1.7.5. Terpenes	11
1.7.6. Quinones	12

1.7.7. Coumarins	12
1.7.8. Fats and Oil	12
1.7.9. Esters	12
1.8. Gas Chromatography -Mass Spectrometry (GC-MS)	13
1.8.1. Principal of GC-MS	13
1.8.2. Application of GC-MS	13
1.9. Aims and Objectives	14
CHAPTER 2: LITERATURE REVIEW	15
CHAPTER 3: EXPERIMENTAL WORK	24
3.1. General Experimental Conditions	24
3.1.1. Instruments	24
3.1.2. Chemicals used	25
3.1.3. Apparatus/ Glass ware	26
3.2. Collection and identification of Plant	27
3.2.1. Material	27
3.3. General procedure for Extraction	27
3.3.1. Drying of Plant Extract	27
3.3.2. Extraction with n-hexane	27
3.4. Phytochemical Test of Plant Extract	28
3.4.1. Test for Alkaloids	28
3.4.2. Test for Coumarins	29
3.4.3. Test for Anthraquinones	29
3.4.4. Test for Saponins	29
3.4.5. Test for Flavonoids	29
3.4.6. Test for Tannin	29

3.4.7. Test for Steroids	29
3.5. Analysis of n-Hexane Extract	30
3.5.1. Thin Layer Chromatography	30
3.6. Gas Chromatography –Mass Spectrometry	32
3.7. Antibacterial Activity	33
3.7.1. Antimicrobial Activity Assay	33
3.7.2. Measurement of MIC	34
CHAPTER 4: RESULTS AND DISCUSSION	35
4.1. Extraction of Plant Material	35
4.2. Phytochemical Test	35
4.3. Thin Layer Chromatography	37
4.4. Gas Chromatography –Mass Spectrometry	38
4.5. Antibacterial Activity	39
CONCLUSION	42
CHROMATOGRAM AND MASS SPECTRA	43-47
REFERENCES	48-51