

CONTENTS

PART-I

OXIDATION OF PENTACYCLIC TRITERPENOIDS HAVING DOUBLE BONDS AT C-2 AND C-3 POSITIONS WITH SELENIUM DIOXIDE IN TERTIARY BUTANOL CONTAINING HYDROGEN PEROXIDE.

CHAPTER-I

Page

A short review on oxidation with selenium dioxide in tertiary butanol containing hydrogen peroxide. 1

CHAPTER-II

SECTION-A :

Oxidation of lupan 2(3)-ene with selenium dioxide in tertiary butanol containing hydrogen peroxide..... 17

SECTION-B :

Oxidation of 2,3 dehydro methyl dihydro betulinate with selenium dioxide in tertiary butanol containing hydrogen peroxide..... 20

SECTION-C :

Oxidation of friedel-3(4)-ene with selenium dioxide in tertiary butanol containing hydrogen peroxide..... 22

SECTION-D :

Oxidation of 3(4)-dehydro friedelan 27→15-olide with selenium dioxide in tertiary butanol containing hydrogen peroxide..... 28

CHAPTER-III

Experimental 31

References 45

PART-II

ACTION OF N-BROMOSUCCINIMIDE ON PENTACYCLIC TRITERPENOIDS OF LUPANE AND FRIEDELANE SKELETON IN DIMETHYL SULFOXIDE.

CHAPTER-I

Page

A short review on reactions with N-bromosuccinimide on triterpenoids and steroids.....	48
--	----

CHAPTER-II

SECTION-A :

Action of N-bromosuccinimide on friedel 3(4)-ene in dimethyl sulfoxide.....	59
---	----

SECTION-B :

Action of bromine on lupenyl acetate in acetic acid.....	64
--	----

SECTION-C :

Action of N-bromosuccinimide on lup-20(29)-en-3 β ,28-diol in dimethyl sulfoxide.....	67
---	----

SECTION-D :

Action of N-bromosuccinimide on lup-20(29)-en-3 β ,28-diyl acetate in dimethyl sulfoxide.	69
--	----

SECTION E :

Action of N-bromosuccinimide on lup-20(29)-en-3 β ,30-diyl acetate in dimethyl sulfoxide	72
--	----

CHAPTER-III

Experimental	74
References	84

PART-III

OXIDATION OF PENTACYCLIC TRITERPENOID KETONE, LACTONE AND ESTER WITH
META CHLOROPERBENZOIC ACID IN CHLOROFORM.

CHAPTER-I

Page

A brief review on oxidations with peracids and peroxides
on triterpenoids..... 86

CHAPTER-II

SECTION-A :

Oxidation of friedelin with meta chloroperbenzoic acid in
chloroform..... 96

SECTION -B :

Oxidation of 3-oxo friedelan 27→15-olide with meta chloroperbenzoic
acid in chloroform..... 98

SECTION C :

Oxidation of acetyl methyl betulinate with meta chloroperbenzoic
acid in chloroform..... 101

CHAPTER-III

Experimental 104
References 109

PART-IV

REDUCTIVE CLEAVAGE OF SEVEN MEMBERED LACTONE RING WITH LITHIUM IN ETHYLENEDIAMINE.

CHAPTER-I

Page

A short review on reductive cleavage with lithium in ethylenediamine..... 112

CHAPTER-II

SECTION A:

Reduction of 3,4 seco friedelan 3→4-olide with lithium in ethylenediamine..... 116

SECTION-B :

Reduction of 3,4 seco friedelan 3→4,27→15-diolide with lithium in ethylenediamine..... 118

CHAPTER-III

Experimental 120
References 123