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**PHYTOCHEMICAL STUDY
OF
NEPENTHES THORELII LEC.**

Miss Rawiwun Kaewamatawong

A Thesis Submitted in Partial Fulfillment of the Requirements

for the Degree of Master of Science in Pharmacy

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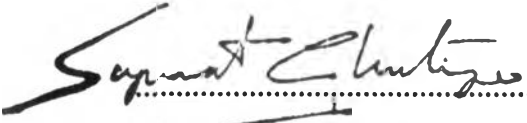
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By Miss Rawiwun Kaewamatawong
Department Pharmacognosy
Thesis Advisor Assistant Professor Kittisak Likhitwitayawuid, Ph.D.
Thesis Co-Advisor Associate Professor Nijisiri Ruangrunsi, Ph.D.

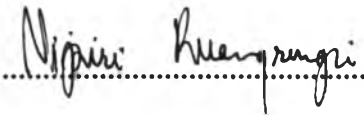
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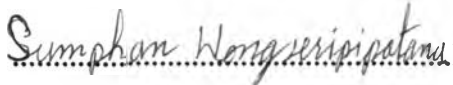
.....Acting Dean of Graduate School
(Professor Supawat Chutivongse, M.D.)
(Dean of Faculty of Medicine)

Thesis Committee

.....Chairman
(Associate Professor Chaiyo Chaichantipyuth, M.Sc. in Pharm.)

.....Thesis Advisor
(Assistant Professor Kittisak Likhitwitayawuid, Ph.D.)

.....Thesis Co-advisor
(Associate Professor Nijisiri Ruangrunsi, Ph.D.)

.....Member
(Associate Professor Sumphan Wongseripipatana, Ph.D.)

พิมพ์ต้นฉบับบทคัดย่อวิทยานิพนธ์ภายในกรอบสี่เหลี่ยมนี้เพียงแผ่นเดียว

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การศึกษาทางพฤกษเคมีของต้นน้ำเต้าลม โดยทำการแยกสารประกอบ จากสิ่งสกัดเอธานอล ได้แก่ plumbagin, droserone, isoshinanolone, octadecyl caffeate และ 2-methylnaphthazarin นอกจากนี้ยังเปลี่ยนแปลงหมู่แทนที่ของ plumbagin เพื่อศึกษาคุณสมบัติทางเคมีและสเปกโทรสโคปี การพิสูจน์เอกลักษณ์และสูตร โครงสร้างของสารประกอบในการศึกษานี้ อาศัยการวิเคราะห์ข้อมูลจากสเปกตรัมของ UV, IR, MS และ NMR

ภาควิชา
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ปีการศึกษา ๒๕๓๙

ลายมือชื่อนิสิต
ลายมือชื่ออาจารย์ที่ปรึกษา
ลายมือชื่ออาจารย์ที่ปรึกษาร่วม

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Five pure compounds, namely plumbagin, droserone, isoshinanolone, octadecyl caffeate and 2-methylnaphthazarin were isolated from the ethanol extract of *Nepenthes thorelii* Lec. (Nepenthaceae). Eight naphthoquinone-related compounds were prepared using plumbagin as the first starting material. The structures of all the natural and synthetic products were determined through analysis of their UV, IR, MS and NMR data.

ภาควิชา..... เกษตรศาสตร์.....
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ลายมือชื่อนิสิต..... นางสาว..... แพรวพวง.....
 ลายมือชื่ออาจารย์ที่ปรึกษา..... Kittisak Likhit.....
 ลายมือชื่ออาจารย์ที่ปรึกษาร่วม..... Nijairi Ruangrungrui.....



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ABBREVIATIONS

ϵ	= Molar absorptivity
br s	= Broad singlet (for NMR spectra)
$^{\circ}\text{C}$	= degree Celsius
cm	= Centimeter
^{13}C NMR	= Carbon-13 nuclear magnetic resonance
COSY	= Correlated spectroscopy
1-D	= One dimensional
2-D	= Two dimensional
DEPT	= Distortionless Enhancement by Polarization Transfer
d	= Doublet (for NMR spectra)
dd	= Doublet of doublets (for NMR spectra)
δ	= Chemical shift
EIMS	= Electron impact mass spectrum
eV	= Electron volt
g	= Gram
HETCOR	= Heteronuclear chemical shift correlation
HMBC	= ^1H -detected Heteronuclear Multiple Bond Coherence
HMQC	= ^1H -detected Heteronuclear Multiple Quantum Coherence
^1H NMR	= Proton nuclear magnetic resonance
HRFAB-MS	= High resolution fast-atom bombardment mass spectrum
Hz	= Hertz
IR	= Infrared spectrum
J	= Coupling constant

kg	=	Kilogram
λ_{max}	=	Wavelength at maxima absorption
M^+	=	Molecular ion
m	=	multiplet (for NMR spectra)
MeOH	=	Methanol
mg	=	Milligram
MHz	=	Megahertz
MIC	=	Minimum inhibitory concentration
ml	=	Milliliter
mm	=	Millimeter
μm	=	Micrometer
m/z	=	Mass to charge ratio
MS	=	Mass spectroscopy
NMR	=	Nuclear magnetic resonance
nm	=	Nanometer
No.	=	Number
NOESY	=	Nuclear overhauser effect spectroscopy
ν_{max}	=	Wave number at maximum absorption
s	=	Singlet (for NMR spectra)
spp.	=	Species
t	=	Triplet (for NMR spectra)
TLC	=	Thin layer chromatography
PTLC	=	Preparative thin layer chromatography
TMS	=	Tetramethylsilane
UV	=	Ultraviolet spectrum