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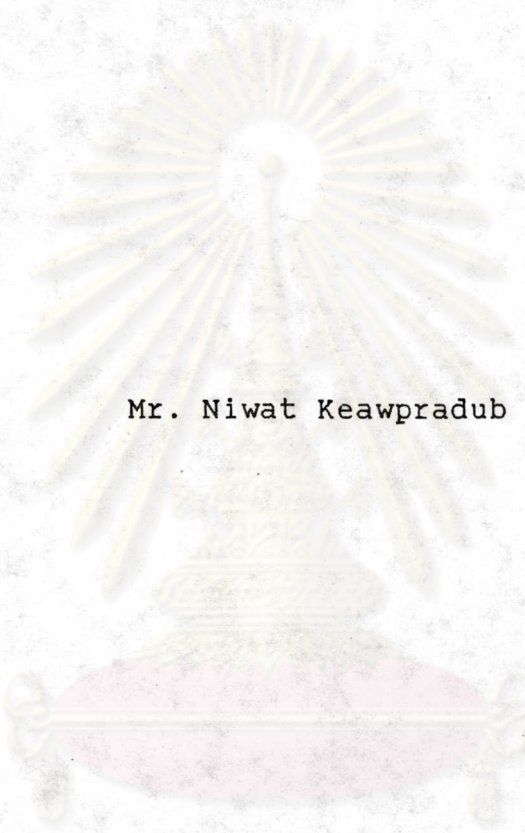
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ALKALOIDS FROM THE FRESH LEAVES OF  
*MITRAGYNA SPECIOSA* (KORTH.) HAVIL.



Mr. Niwat Keawpradub

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สามารถแยกได้แอลคาลอยด์ 2 ประเภท คือ heteroyohimbines และ oxindoles จากใบสดของต้นกระท่อม *Mitragyna speciosa* (Korth.) Havil., heteroyohimbines ที่แยกได้มี 6 ชนิด คือ mitragynine, paynantheine, speciogynine, mitraciliatine, ajmalicine และ tetrahydroalstonine ส่วน oxindoles ที่แยกได้มี 3 ชนิด คือ isopteropodine, isomitraphylline และ mitraphylline แอลคาลอยด์ tetrahydroalstonine และ isopteropodine ยังไม่เคยมีรายงานว่าพบในพืชชนิดนี้มาก่อน พร้อมทั้งได้ศึกษาคุณสมบัติทางเคมีและกายภาพของแอลคาลอยด์ทั้ง 9 ชนิด

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จุฬาลงกรณ์มหาวิทยาลัย

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สาขาวิชา ..... เภสัชเวท  
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NIWAT KEAWPRADUB : ALKALOIDS FROM THE FRESH LEAVES OF *MITRAGYNA SPECIOSA* (KORTH.) HAVIL. THESIS ADVISORS : ASSO. PROF. DHAVADEE PONGLUX, Ph.D., ASSO. PROF. SUMPHAN WONGSERIPIPATANA, M.Sc. 218 pp. ISBN 974-577-701-3

The fresh leaves of *Mitragyna speciosa* (Korth.) Havil. were examined for their alkaloids. Altogether nine alkaloids were isolated, six of which being heteroyohimbine alkaloids identified as mitragynine, paynantheine, speciogynine, mitraciliatine, ajmalicine, and tetrahydroalstonine. The other three being oxindole alkaloids identified as isopteropodine, isomitraphylline, and mitraphylline. Tetrahydroalstonine and isopteropodine have never been reported from this species before. The physical and chemical properties of these alkaloids were studied.

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ลายมือชื่ออาจารย์ที่ปรึกษาร่วม .....





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## ABBREVIATIONS

br	=	broad (for NMR spectra)
t-BuOCl	=	tertiary butyl hypochlorite
°C	=	degree Celsius
$^{13}\text{C}$ -NMR	=	carbon-13 nuclear magnetic resonance
cm	=	centimeter
d	=	doublet (for NMR spectra)
EIMS	=	electron impact mass spectrometry
g	=	gram
Glu	=	glucose
$^1\text{H}$ -NMR	=	proton nuclear magnetic resonance
IR	=	infrared
KBr	=	potassium bromide
kg	=	kilogram
L	=	liter
m	=	meter
m	=	multiplet (for NMR spectra)
$\text{M}^+$	=	molecular ion
m/e	=	mass to charge ratio
mg	=	milligram
MHz	=	mega hertz
ml	=	milliliter
mm	=	millimeter
m.p.	=	melting point
nm	=	nanometer



$\text{Pb(OAc)}_4$	=	lead tetraacetate
PEP	=	phosphoenolpyruvic acid
ppm	=	parts per million
PRPP	=	5-phosphoribosyl-1-pyrophosphate
Py	=	pyridine
q	=	quartet (for NMR spectra)
s	=	singlet (for NMR spectra)
t	=	triplet (for NMR spectra)
TLC	=	thin-layer chromatography
UV	=	ultraviolet
Zn	=	zinc

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