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THE ALKALOIDS FROM THE STEMS OF *COSCINIUM FENESTRATUM* COLEBR

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for the Degree of Master of Science in Pharmacy

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พิมพ์ด้นฉบับที่ดื่อวิทยานิพนธ์ภายในกรอบสีเขียวนี้เพียงแผ่นเดียว

สุปราษี แก้วประดับ : แอลคาลอยด์จากถems Fenestratum Colebr. (The alkaloids from the stems of *Coscinium fenestratum* Colebr.) อ.ที่ปรึกษา : รศ.ก.ล.ยา ภราไชย, ๖๔๙ หน้า.
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จากการศึกษาหาและคลอloyd's ในถems Fenestratum Colebr. (*Coscinium fenestratum* Colebr.)

สามารถแยกแอลคาลอยด์ได้ ๒ ประเภท คือ protoberberines และ aporphines proto-berberines ที่แยกได้มี ๗ ชนิด คือ berberine, jatrorrhizine, และ tetrahydropalmatine ส่วน aporphines ที่แยกได้ คือ crebanine และคลอloyd's tetrahydropalmatine และ crebanine ยังไม่เคยมีรายงานว่าพบในพืชชนิดนี้ พร้อมทั้งได้ศึกษาคุณสมบัติทางเคมีและกายภาพของแอลคาลอยด์ทั้ง ๘ ชนิด

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KEY WORD: *Coscinium fenestratum* / PROTOBERBERINES / APORPHINES /
MENISPERMACEAE

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The stems of *Coscinium fenestratum* Colebr. were examined for their alkaloids. Altogether four alkaloids were isolated, three of which being protoberberine alkaloids identified as berberine, jatrorrhizine and tetrahydropalmatine, the other one being aporphine alkaloids identified as crebanine. Tetrahydropalmatine and crebanine have never been reported from this species. The physical and chemical properties of these alkaloids were studied.

ภาควิชา..... เกษช. เทพ

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ABBREVIATIONS

\textcircled{a} A	=	Angstrom
br	=	Broad (for NMR spectra)
C	=	Degree celcius
^{13}C -NMR	=	Carbon-13 nuclear magnetic resonance
cm	=	Centimeter
d	=	Doublet
DEPT	=	Distortionless enhancement by polarization transfer
DMSO-d ₆	=	Dimethyl sulfoxide-d ₆
DNA	=	Deoxyribonucleic acid
EI	=	Electron impact
g, gm	=	Gram
^1H -NMR	=	Proton nuclear magnetic resonance
IR	=	Infrared
KBr	=	Potassium bromide
kg	=	Kilogram
L	=	Liter
m	=	Meter
m	=	Multiplet (for NMR spectra)
M^+	=	Molecular ion
m/e	=	Mass to charge ratio
MeOH	=	Methanol
mg	=	Milligram
MHz	=	Mega hertz

ml = Milliliter
mm = Millimeter
m.p. = Melting point
NAD = Nicotinamide adenine dinucleotide
NADH = Reduced nicotinamide adenine dinucleotide
 NaBH_4 = Sodium borohydride
nm = Nanometer
ppm = Part per million
q = Quartet (for NMR spectra)
s = Singlet (for NMR spectra)
t = Triplet (for NMR spectra)
TLC = Thin layer chromatography