

องค์ประกอบทางเคมีของใบตาสือใบเล็ก (*Amoora gigantea* Pierre ex. Laness)

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CHEMICAL CONSTITUENTS OF THE LEAF OF
Amoora gigantea Pierre ex. Laness



Miss Nisakorn Kamjaikittikul

ศูนย์วิทยทรัพยากร
จุฬาลงกรณ์มหาวิทยาลัย

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นำใบตาสื่อใบเล็กที่แห้งและบดละเอียด มาสกัดด้วยตัวทำละลายเฮกเซน ได้สิ่งสกัดมีลักษณะเป็นของเหลวหนืดสีน้ำตาลอมเขียว นำกากที่เหลือมาสกัดต่อด้วยตัวทำละลายเมทานอล ได้สิ่งสกัดสีดำนอมเขียว นำสิ่งสกัดมาทำการแยกด้วยวิธีคอลัมน์โครมาโทกราฟี สามารถแยกสารได้ 10 ชนิด ซึ่งสามารถพิสูจน์โครงสร้าง โดยอาศัยสมบัติทางกายภาพ ปฏิกริยาทางเคมี และข้อมูลทางสเปกโทรสโกปีได้สารต่างๆ ดังนี้ ของผสมไฮโดรคาร์บอนโซ่ตรง (C_{22-24} , C_{27-33}), เอสเทอร์โซ่ตรงยาว, 5α -dammara-20(21),24-dien-3-one, ของผสมแอลกอฮอล์โซ่ตรงยาว(C_{32-33}), 5α -dammara-20(21),24-dien-3 β -ol, ของผสมสเตอรอยด์ (stigmasterol, β -sitosterol), ของผสมสเตอรอยด์ไกลโคไซด์ (stigmasterol-3-O- β -D-glucopyranoside, β -sitosterol-3-O- β -D-glucopyranoside), และ tetratriacontanoic acid ($C_{34}H_{68}O_2$) ส่วนสารอีก 2 ชนิดที่เหลือไม่สามารถหาสูตรโครงสร้างได้เนื่องจากสารที่แยกได้นั้นมีปริมาณน้อยมาก สำหรับงานวิจัยนี้ นับว่าเป็นครั้งแรกที่ได้มีการรายงานองค์ประกอบทางเคมีของพืชชนิดนี้

ศูนย์วิทยทรัพยากร
จุฬาลงกรณ์มหาวิทยาลัย

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สาขาวิชา.....

ปีการศึกษา..... 2538

ลายมือชื่อนิสิต.....นิสากร กำจายกิตติกุล

ลายมือชื่ออาจารย์ที่ปรึกษา.....ดร.อมร

ลายมือชื่ออาจารย์ที่ปรึกษาร่วม.....

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Dried and ground leaf of *Amoora gigantea* Pierre ex. Laness were extracted with hexane, giving a greenish-brown sticky liquid. The residue was further extracted with methanol, giving a greenish-black crude extract. The both crude extracts then were separated by column chromatography and ten compounds were obtained. These isolated compounds were established on the basis of physical properties and spectral evidences. Eight compounds can be identified, they were a mixture of long chain hydrocarbons (C_{22-24} , C_{27-33}), long chain ester (Octadecyl eicosanoate($C_{38}H_{76}O_2$)), 5α -dammara-20(21), 24-dien-3-one, a mixture of long chain alcohol (C_{32-33}), 5α -dammara-20(21), 24-dien-3 β -ol, a mixture of steroid (stigmasterol and β -sitosterol), a mixture of steroid glycoside (stigmasterol-3-O- β -D-glucopyranoside and β -sitosterol-3-O- β -D-glucopyranoside), and tetratriacontanoic acid($C_{34}H_{68}O_2$). The other two substances cannot be identified due to the limited amount. This is the first report ever known about the chemical constituents of this particular plant species.

ศูนย์วิทยทรัพยากร
จุฬาลงกรณ์มหาวิทยาลัย

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จุฬาลงกรณ์มหาวิทยาลัย

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LIST OF ABBREVIATIONS

| | |
|--------------------|--------------------------------------|
| TMS | Tetramethylsilane |
| Hz | Hertz |
| ppm | part per million |
| δ | chemical shift |
| s | singlet (NMR) |
| d | doublet (NMR) |
| t | triplet (NMR) |
| q | quartet (NMR) |
| m | multiplet (NMR) |
| dd | doublet of doublet |
| J | coupling constant |
| cm^{-1} | unit of wave number |
| M^+ | molecular ion |
| m/e | mass to charge ratio |
| M.W. | molecular weight |
| ν_{max} | the wavelength at maximum absorption |
| br | broad |
| s | strong |
| m | medium |
| w | weak |
| % | percent |
| R_t | Retention time in gas chromatography |
| conc. | concentration |
| syn. | synonym |