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ALKALOIDS OF *UNCARIA ATTENUATA* KORTH.



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Department of Pharmaceutical Botany

Graduate School

Chulalongkorn University

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Thesis Title Alkaloids of *Uncaria attenuata* Korth.

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จากการใช้สมรรถรงค์เลข สามารถแยกอัลกาลอยด์จากใบโงเบ (*Uncaria attenuata* Korth., Rubiaceae) ได้ 2 ประเภท คือ heteroyohimbines และ oxindoles, heteroyohimbines ที่ได้ คือ tetrahydroalstonine และ rauniticine อัลกาลอยด์ชนิดหลังนี้ ยังไม่เคยมีรายงานว่าพบในพืชสกุล *Uncaria* ได้ศึกษาคุณสมบัติทางกายภาพ รวมทั้งคุณสมบัติและปฏิกิริยาทางเคมีของอัลกาลอยด์ทั้งสอง นอกจากนี้ ยังแยกได้ heteroyohimbine ใหม่ ที่ยังไม่เคยมีรายงานมาก่อนเลยทั้งในธรรมชาติและโดยการสังเคราะห์ ได้ทำการศึกษาคุณสมบัติทางกายภาพและเคมี และกำหนดว่าเป็น 14-hydroxy-3-isorauniticine พร้อมทั้งบรรยายการกำหนดสูตรโครงสร้างอย่างละเอียด ส่วน oxindoles ที่แยกได้ 2 ชนิดมีปริมาณน้อยมาก รวมทั้งได้พบร่องรอยของ oxindole อีก 1 ชนิด ทั้งได้อภิปรายเกี่ยวกับอัลกาลอยด์ทั้งหมดที่มีรายงานว่าพบในพืชสกุล *Uncaria*

Thesis Title Alkaloids of *Uncaria attenuata* Korth.
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ABSTRACT

Heteroyohimbine and oxindole alkaloids have been isolated from the leaves of *Uncaria attenuata* Korth. (Rubiaceae) by means of column chromatography. The isolated heteroyohimbines are tetrahydroalstonine, and rauniticine which has never been reported as being present in this genus before. Physical and chemical properties including chemical transformations of these two alkaloids are studied. One novel heteroyohimbine, not previously been reported elsewhere either naturally or synthetically, has been obtained. From the physical and chemical properties being studied, it is assigned as 14-hydroxy-3-isorauniticine. A detailed discussion on the elucidation of chemical structure is included. Only small quantities of two oxindoles have been obtained and traces of another oxindole is revealed. A discussion of the so far reported alkaloidal content of the genus *Uncaria* is presented.



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