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ALKALOIDS FROM THE STEM BARK OF Strychnos ignatii BERG.

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บทคัดย่อ

โดยวิธีทางรงคเลข และการตกผลึก สามารถแยกได้สารที่มีสูตรโครงสร้างเป็น monomeric indole alkaloid 4 ชนิด คือ strychnine, brucine, geissoschizol และ polyneuridine จากเปลือกต้นของพญามือเหล็ก Strychnos ignatii Berg. (S. krabiensis A.W. Hill) นอกจากนี้ยังแยกได้สารที่มีสูตรโครงสร้างเป็น bisindole alkaloid 2 ชนิด คือ longicaudatine และสารใหม่อีกชนิดหนึ่งชื่อ dihydrolongicaudatine แต่พบในปริมาณน้อย

สาร geissoschizol และ polyneuridine ยังไม่มีรายงานว่าพบในพืชชนิดนี้มาก่อน และนับเป็นครั้งแรกที่พบสารทั้ง 2 ชนิดนี้ในพืชวงศ์ Loganiaceae

ได้ทำการพิสูจน์สูตรโครงสร้างของสารเหล่านี้ โดยวิธีทางสเปกโตรสโคปี รวมทั้งได้อธิบายความสัมพันธ์แง่ชีวสังเคราะห์ของสารที่แยกได้เหล่านี้ อย่างสังเขป

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ABBREVIATIONS

| | | |
|---------------------|---|---|
| br | = | broad |
| $^{\circ}\text{C}$ | = | degree Celsius |
| ca. | = | approximately |
| CC | = | column chromatography |
| ^{13}C NMR | = | Carbon-13 Nuclear Magnetic Resonance |
| d | = | doublet |
| g | = | gram |
| hRf | = | Rate of flow in chromatography multiplied in 100 |
| ^1H NMR | = | Proton Nuclear Magnetic Resonance |
| IR | = | Infrared |
| J | = | coupling constant |
| kg | = | kilogram |
| m ₊ | = | multiplet |
| M | = | Molecular ion |
| mg | = | milligram |
| MHz | = | Mega Hertz |
| min | = | minute |
| ml | = | millilitre |
| m.p. | = | melting point |
| MW | = | Molecular weight |
| m/z | = | mass to charge ratio |
| nm | = | nanometre |
| PLC | = | Preparative thin-layer Chromatography |
| ppm | = | part per million |

| | | |
|------------------------|---|---------------------------------------|
| q | = | quartet |
| s | = | singlet |
| t | = | triplet |
| TLC | = | Thin Layer Chromatography |
| UV | = | Ultra Violet |
| λ_{max} | = | The wave length at maximum absorption |
| ν_{max} | = | Wave number |
| δ | = | chemical shift |
| Δ | = | unsaturated double bond |
| \varnothing | = | diameter |