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CHEMICAL CONSTITUENTS OF THE STEMS OF
Piper ribesoides Wall.

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นำลำต้นสะค้านพลูที่แห้ง มาสกัดด้วยตัวทำละลายอินทรีย์ นำสิ่งสกัดที่ได้มาแยกด้วยคอลัมน์โครมาโทกราฟีแบบรวดเร็ว สามารถแยกสารประกอบได้ 7 ชนิด จากสมบัติทางกายภาพและข้อมูลทางสเปกโทรสโคปีสามารถทราบโครงสร้างทางเคมีของสารประกอบได้ 7 ชนิด คือ methyl-5-(3',4'-methylenedioxyphenyl)penta-2,4-dienoate (m.p. 141-143°C, $C_{13}H_{12}O_4$, ผลึกรูปเข็มสีเหลือง), 2-(3'-hydroxy-4'-methoxyphenyl)-3-methyl-5-trans-propenyl-7-methoxybenzofuran (m.p. 102-105°C, $C_{20}H_{20}O_4$, ของแข็งสีขาว), 2-(3',4'-methylenedioxyphenyl)-3-methyl-5-trans-propenyl-7-methoxybenzofuran (m.p. 146-148°C, $C_{20}H_{18}O_4$, ผลึกรูปเข็มสีขาว), (-)-borneol p-hydroxycinnamide (m.p. 153-154°C, $C_{19}H_{24}O_3$, ผลึกรูปเข็มสีขาว), heteropeucenin-8-methyether (m.p. 105-107°C, $C_{16}H_{18}O_4$, ผลึกรูปเข็มสีเหลือง), crotepoxide (m.p. 149-150°C, $C_{18}H_{18}O_8$, ของแข็งสีขาว) และ N-isobutyl-13-(3,4-methylenedioxyphenyl)trideca-2,4,12-trinamide (m.p. 116-117°C, $C_{24}H_{33}NO_3$, ผลึกรูปเข็มสีขาว)

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The dried stems of Piper ribesoides Wall. were extracted by organic solvents. The crude extracts were separated by flash column chromatography and 7 compounds were obtained. From their physical properties and spectroscopic data. These 7 compounds were identified as a methyl-5-(3',4'-methylenedioxyphenyl)penta-2,4-dienoate (m.p.141-143°C, C₁₃H₁₂O₄, yellow needle), 2-(3'-hydroxy-4'-methoxyphenyl)-3-methyl-5-trans-propenyl-7-methoxybenzofuran (m.p.102-105°C, C₂₀H₂₀O₄, white solid), 2-(3',4'-methylenedioxyphenyl)-3-methyl-5-trans-propenyl-7-methoxybenzofuran (m.p.146-148°C, C₂₀H₁₈O₄, white needle), (-)-borneol p-hydroxycinnamate (m.p.153-154°C, C₁₉H₂₄O₃, white needle), heteropeucenin-8-methyether (m.p.105-107°C, C₁₆H₁₈O₄, yellow needle), crotepoxide (m.p.149-150°C, C₁₈H₁₈O₃, white solid) and N-isobutyl-13-(3,4-methylenedioxyphenyl)trideca-2,4,12-trinamide (m.p.116-117°C, C₂₄H₃₃N₃O₃, white needle).

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LIST OF ABBREVIATIONS

Fig.	Figure
R_f	Retardation factor
TMS	Tetramethylsilane
δ	Chemical shift
J	Coupling constant
ppm	Part per million
m.p.	Melting point
TLC	Thin layer chromatography
PTLC	Preparative thin layer chromatography
λ_{\max}	The wavelength at maximum absorption
cm^{-1}	Unit of wavenumber
M^+	Molecular ion in mass spectrum
m/e	Mass to charge ratio
s	Singlet
d	Doublet
dd	Doublet of doublet
ddd	Doublet of doublet of doublet
m	Multiplet
t	triplet
tt	triplet of triplet