

Supporting Information

J. Chem. Metrol. 19:1 (2025) 72-81

Microwave-assisted extraction for the determination of shanzhiside methyl ester and barlerin in *Barleria prionitis* L.

Nilubon Sornkaew^{1*}, Thanapich Santiwat², and Nakorn Niamnont²

¹ *Herbal and Cannabis Science, Faculty of Science and Technology, Bansomdejchaopraya Rajabhat University, Bangkok 10600, Thailand 10140, Thailand*

² *Organic Synthesis, Electrochemistry & Natural Product Research Unit, Department of Chemistry, Faculty of Science, King Mongkut's University of Technology Thonburi, Bangkok 10140, Thailand*

| Table of Contents | Page |
|---|------|
| Figure S1: ¹ H-NMR (400 MHz, CD ₃ OD) Spectrum of 1 (Barlerin) | 2 |
| Figure S2: ¹³ C-NMR (100 MHz, CD ₃ OD) Spectrum of 1 (Barlerin) | 3 |
| Figure S3: HR-ESI-MS Spectrum of 1 (Barlerin) | 4 |
| Figure S4: ¹ H-NMR (400 MHz, CD ₃ OD) Spectrum of 2 (Shanzhiside Methyl Ester) | 5 |
| Figure S5: ¹³ C-NMR (100 MHz, CD ₃ OD) Spectrum of 2 (Shanzhiside Methyl Ester) | 6 |
| Figure S6: HR-ESI-MS Spectrum of 2 (Shanzhiside Methyl Ester) | 7 |
| Figure S7: HPLC Chromatogram of Shanzhiside Methyl Ester Standard | 7 |
| Figure S8: HPLC Chromatogram of Barlerin Standard | 7 |

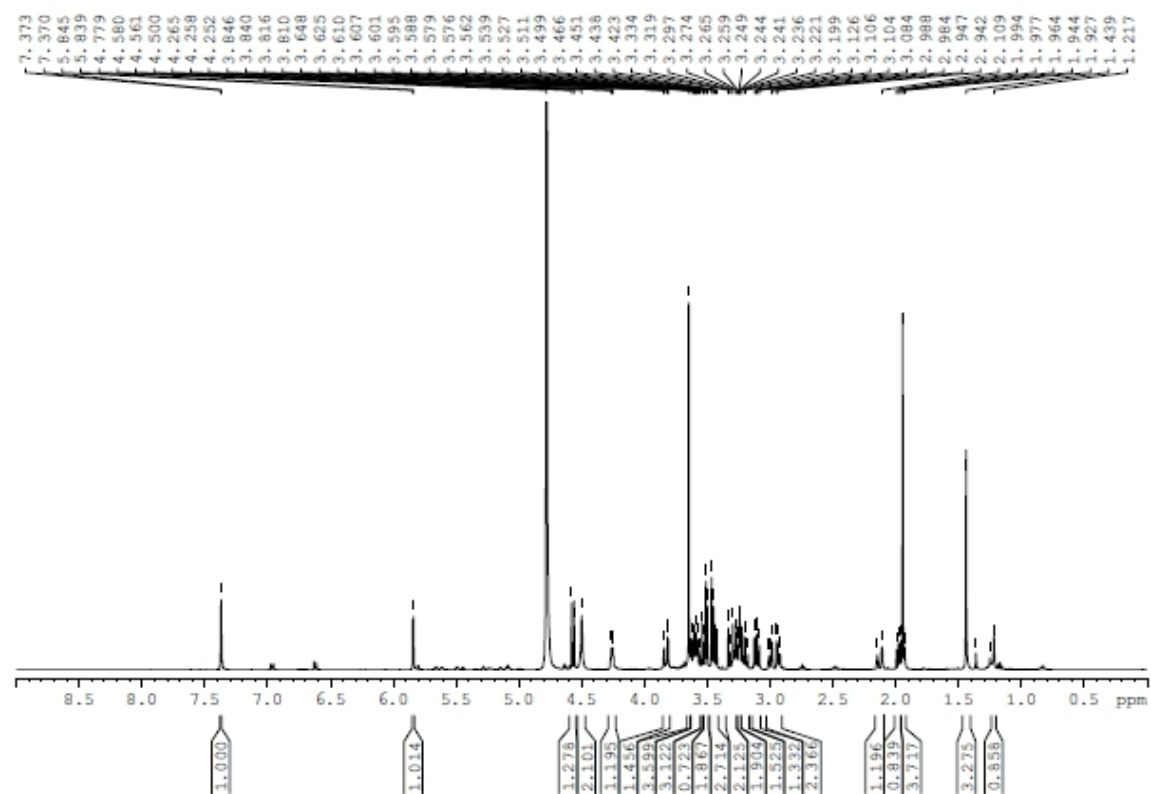


Figure S1: ^1H -NMR (400 MHz, CD_3OD) Spectrum of **1** (Barlerin)

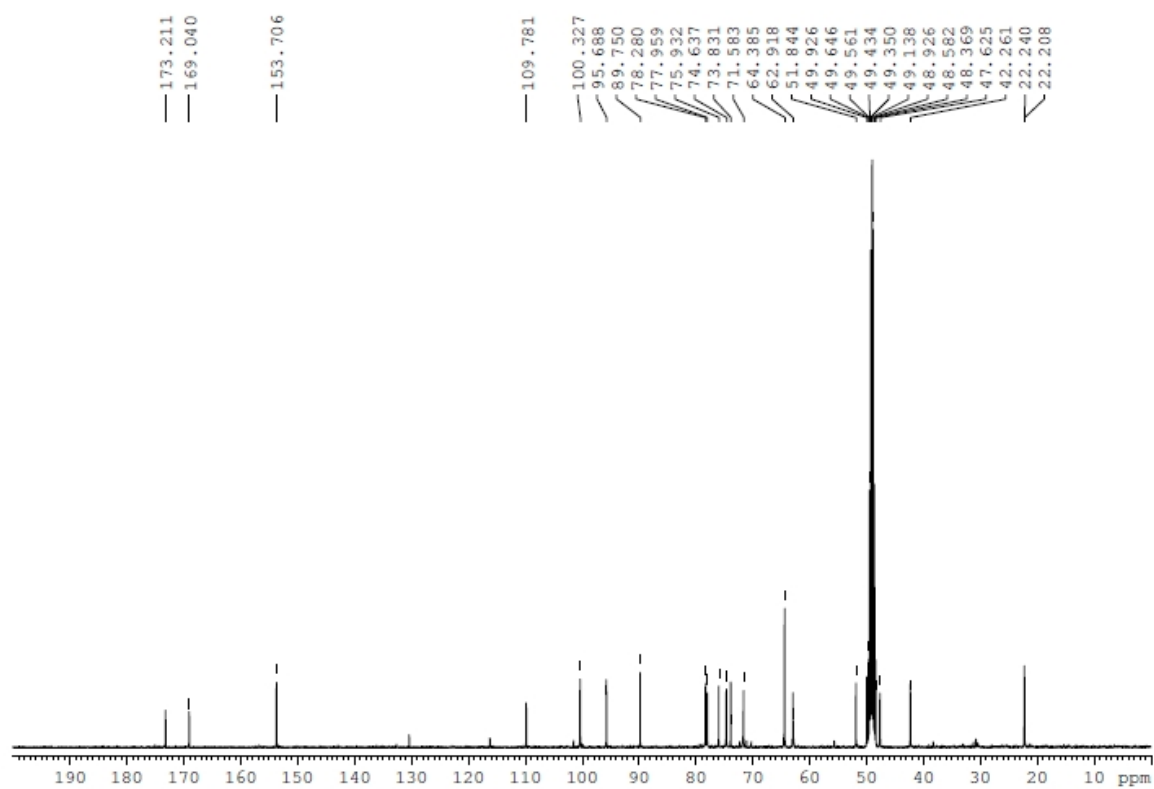


Figure S2: ^{13}C -NMR (100 MHz, CD_3OD) Spectrum of **1** (Barlerin)

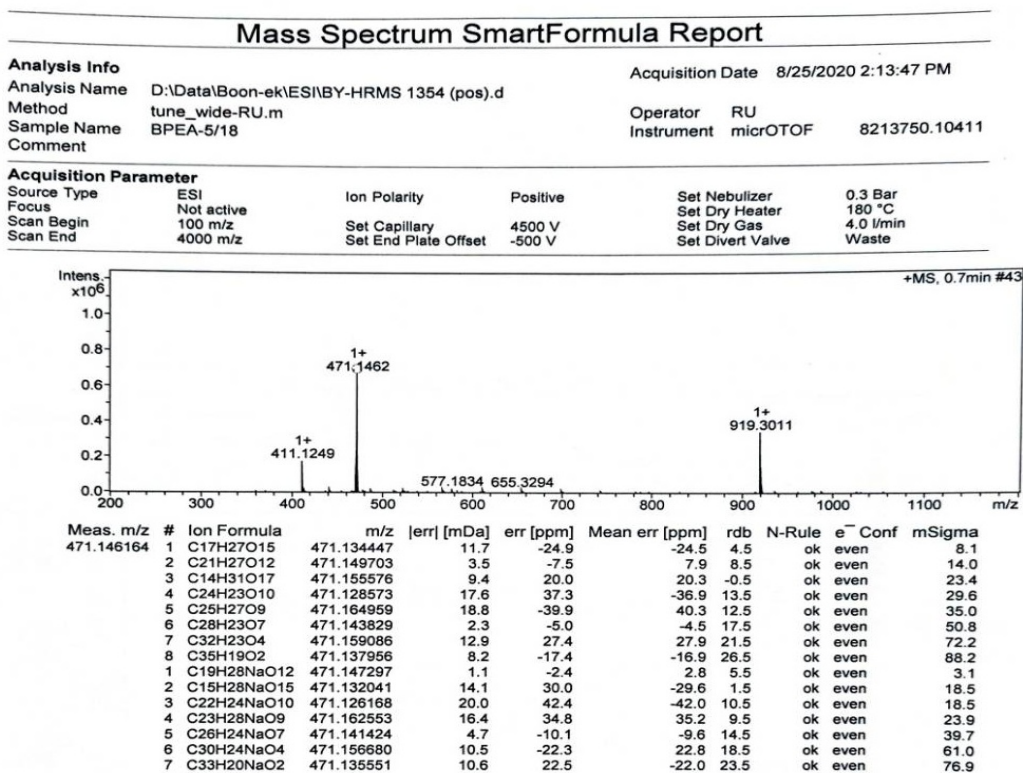


Figure S3: HR-ESI-MS Spectrum 1 (Barlerin)

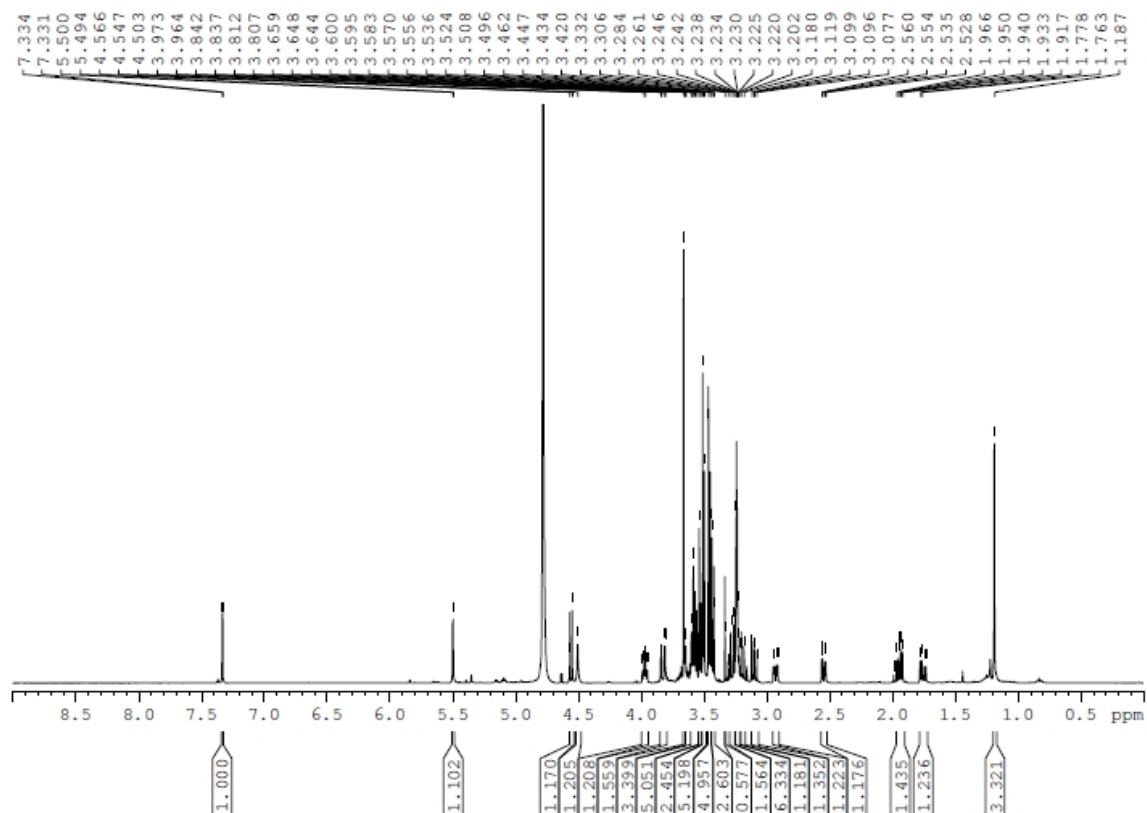


Figure S4: ^1H -NMR (400 MHz, CD_3OD) Spectrum of **2** (Shanzhiside Methyl Ester)

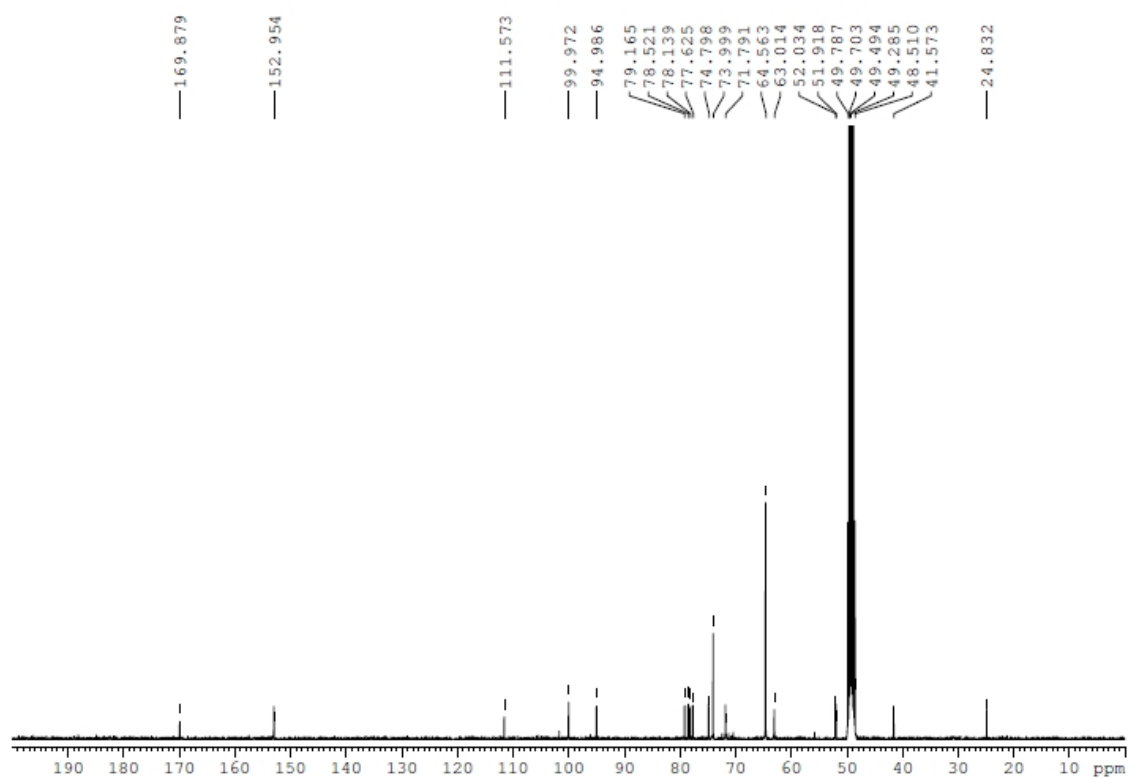


Figure S5: ^{13}C -NMR (100 MHz, CD_3OD) Spectrum of **2** (Shanzhiside Methyl Ester)

Mass Spectrum SmartFormula Report

Analysis Info

Analysis Name D:\Data\Boon-ek\ESI\BY-HRMS 1355 (pos).d
 Method tune_wide-RU.m
 Sample Name BPEA-5/31
 Comment

Acquisition Date 8/25/2020 2:16:24 PM

Operator RU
 Instrument micrOTOF 8213750.10411

Acquisition Parameter

| Source Type | ESI | Ion Polarity | Positive | Set Nebulizer | 0.3 Bar |
|-------------|------------|----------------------|----------|------------------|-----------|
| Focus | Not active | | | Set Dry Heater | 180 °C |
| Scan Begin | 100 m/z | Set Capillary | 4500 V | Set Dry Gas | 4.0 l/min |
| Scan End | 4000 m/z | Set End Plate Offset | -500 V | Set Divert Valve | Waste |

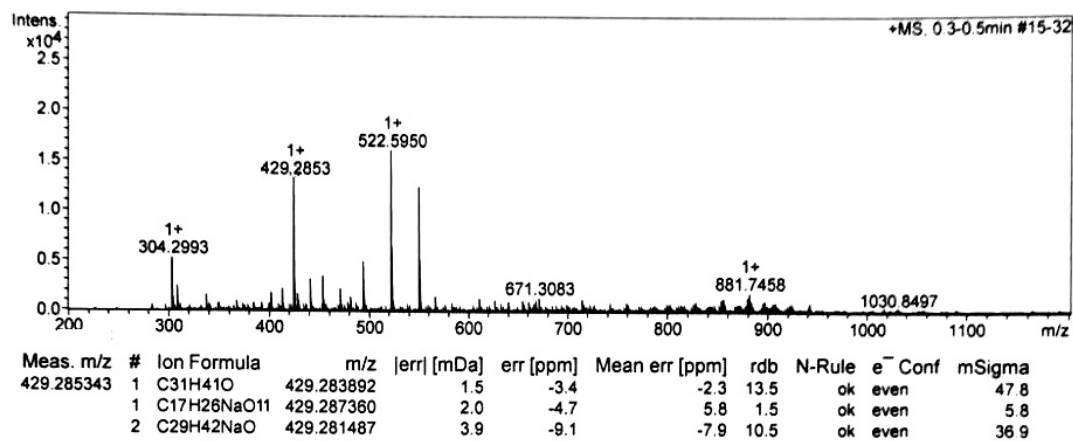


Figure S6: HR-ESI-MS Spectrum of **2** (Shanzhiside Methyl Ester)

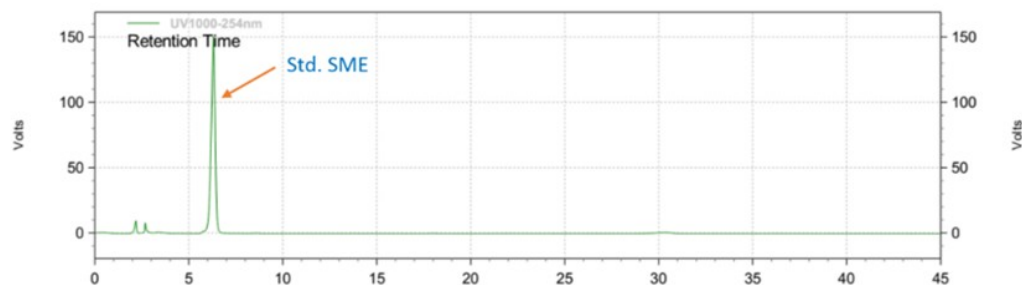


Figure S7: HPLC Chromatogram of Shanzhiside Methyl Ester Standard

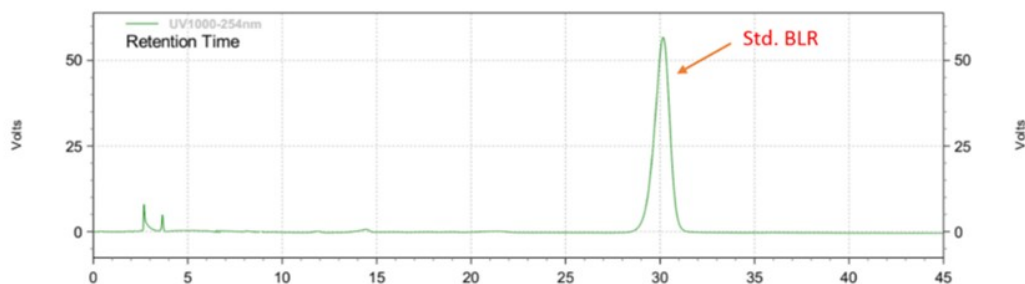


Figure S8: HPLC Chromatogram of Barlerin Standard