

Separation and Purification of Oligostilbenes Using HPLC with Dereplication Strategy

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Abstract : The leaves of *Neobalanocarpus heimii* were investigated for their oligostilbene contents. Prior to isolation process, the determinations of compounds were based on mass spectrometric fragmentation patterns. Three compounds, heimiol B, hopeaphenol, and vaticaphenol A were identified directly from the crude extract. Preparative high-performance liquid chromatography (HPLC) was used to isolate and purify the other compounds. The purified compounds were then analyzed using NMR spectroscopy to identify the compound structure and stereochemistry. The method employed for the research modified to comply with different HPLC techniques such as preparative and analytical techniques. The crude sample was injected into preparative HPLC to obtain several fractions which consist of oligostilbene mixture. The fractions were further isolated using analytical HPLC to obtain four pure compounds. The compounds then were characterized using nuclear magnetic resonance (NMR). The result shows that the leaves extract of *Neobalanocarpus heimii* contain three oligostilbenes, namely vaticanol A, balanocarpol, and vaticaphenol A, and a galactopyranose.

Keywords : balanocarpol, hemiol B, hopeaphenol, vaticanol A, vaticaphenol A

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