Anthraquinones from *Neonauclea calycina* and Their Inhibitory Activity against DNA Topoisomerase II.

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In a series of searches for DNA topoisomerase II inhibitors from naturally occurring compounds, a wood extract of *Neonauclea calycina* showed a moderate effect in vitro. Purification of the extract resulted in the isolation of seven known anthraquinones. The structures were characterized as dammacanthal, rubiadin 1-methyl ether, nordammacanthal, morindone, dammacanthol, lucidin 3-O-primeveroside and morindone 6-O-primeveroside by spectral analysis, respectively. Dammacanthal and morindone showed an intensive inhibitory effect against topoisomerase II.

Identification of Lac Dye Components by Electrospray High Performance Liquid Chromatography-Tandem Mass Spectrometry.

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A reliable identification method for laccaric acids which are the main components in lac dye has been established using ESI LC/MS/MS with a volatile mobile phase containing acetylacetone. Addition of acetylacetone to the mobile phase enables us to separate laccaric acids without reduction of resolution. The volatile mobile phase, acetonitrile-0.005% aqueous TFA solution of laccaric acids containing 0.005 M acetylacetone, is applicable to directly interfaced ESI LC/MS/MS without clogging problems.

A Prenylated Flavanone from Roots of *Amorpha fruticosa*.

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From the roots of *Amorpha fruticosa*, a new prenylated flavanone was isolated, in addition to seven known phenolic compounds. The structure of the new flavanone was confirmed to be 5,7,3'-trihydroxy-6,8,5'-trisoprenyl-4'-methoxyflavanone (isomoritin) by spectroscopic analysis, including 2D NMR.

Stilbene Derivatives in the Stem of *Parthenocissus quinquefolia*.

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From the stem of *Parthenocissus quinquefolia* (Vitaceae), two new resveratrol oligomers, parthenosissins A and B were isolated in addition to three known stilbenes. These structure were elucidated by the analysis of spectral data including 2D-NMR and NOE experiments.