

[*Biol. Pharm. Bull.*, **21**, 641-642 (1998)]

[Lab. of Pharmacognosy]

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

Hideki TOSA, Munekazu IINUMA,* Fujio ASAI, Toshiyuki TANAKA, Hiroshi NOZAKI,
Shougo IKEDA, Ken TSUTSUI, Kimiko TSUTSUI, Masashi YAMADA and Shiho FUJIMORI

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 damnacanthal, rubiadin 1-methyl ether, nordamnacanthal, morindone, damnacanthol, lucidin 3-O-primeveroside and morindone 6-O-primeveroside by spectral analysis, respectively. Damnacanthal and morindone showed an intensive inhibitory effect against topoisomerase II.

[*J. Mass Spectrom. Soc. Jpn.*, **46**, 63-68 (1998)]

[Lab. of Pharmacognosy]

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

Hisao OKA, Yuko ITO, Sadaji YAMADA Tadaaki KAGAMA, Junko HAYAKAWA,
Ken-ichi HARADA, Eiichiro ATSUMI, Masanao SUZUKI, Makoto SUZUKI, Hiroko
ODANI, Setsuyo Akahori, Kenji MAEDA, Toshiyuki TANAKA* and Mizuo MIZUNO

A reliable identification method for laccic 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 laccic acids without reduction of resolution. The volatile mobile phase, acetonitrile-0.005% aqueous TFA solution of laccic acids containing 0.005 M acetylacetone, is applicable to directly interfaced ESI LC/MS/MS without clogging problems.

[*Phytochemistry*, **48**, 907-909 (1998)]

[Lab. of Pharmacognosy]

A Prenylated Flavanone from Roots of *Amorpha fruticosa*.

Masayoshi OHYAMA, Toshiyuki TANAKA and Munekazu IINUMA*

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'-triisoprenyl-4'-methoxyflavanone (isoamoritin) by spectroscopic analysis, including 2D NMR.

[*Phytochemistry*, **48**, 1045-1049 (1998)]

[Lab. of Pharmacognosy]

Stilbene Derivatives in the Stem of *Parthenocissus quinquefolia*.

Toshiyuki TANAKA,* Munekazu IINUMA and Hiroko MURATA

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.