

[Phytochemistry, **40**, 77-81 (1995)]

[Lab. of Pharmacognosy]

Stimulation of the prenylated flavanones production by mannans and acidic polysaccharides in callus cultures of *Sophora flavescens*.

HIROBUMI YAMAMOTO*, MASAHIKO ICHIMURA KENICHIRO INOUE

The production of prenylated flavanone such as sophoraflavanone G and lehmannin was stimulated up to 5 times by the addition of 2 mg/ml yeast extract. By use of DEAE-cellulose and Concanavalin A-Sepharose column chromatographies, the active component was partially purified as a mannan (ca.91 % of mannose and ca 5 % glucose). Acidic polysaccharides also stimulated the production of prenylated flavanone. The effect of pectin was higher than that of pectinic acid derived from the same origin. Other polysaccharides such as cellulose, β -1,3-glucan, and chitosan did not effect the productivity.

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[Lab. of Pharmacognosy]

Structure elucidation of six acylated iridoid glucosides from *Jasminum hemsleyi*.

T. TANAHASHI, A. SHIMADA, N. NAGAKURA, K. INOUE*, M. ONO, T. FUJITA and C.-C. CHEN

Six new iridoid glucosides, jashemslosides A - D (2 - 5), 6'-O-trans-p-coumaroylloganin (6) and 6'-O-cis-p-coumaroylloganin (7), were isolated from the leaves of *Jasminum hemsleyi*, together with the known four glycosides. The structures of the new glucosides, which contain a menthiaforic acid unit or p-coumaroyl group in addition to the loganin moiety, were elucidated by spectroscopic and chemical studies. Chirospecific HPLC analysis of the monoterpene acid derivatives prepared from 2 and 3 revealed that each of the new compounds was a mixture of two inseparable diastereoisomers.

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[Lab. of Pharmacognosy]

Simple compounds, 2-alkyl-2-amino-1,3-propanediols have potent immunosuppressive activity.

T. FUJITA, M. YONETA, R. HIROSE, S. SASAKI, K. INOUE*, M. KIUCHI,
S. HIRASE, K. ADACHI, M. ARITA, K. CHIBA:

ISP-I(myriocin, thermozyiocidin) was structurally simplified to give 2-amino-2-alkyl-1,3-propanediols that were potent immunosuppressants. Among the series, 2-amino-2-pentadecyl-1,3-propanediol most actively prolonged rat skin allograft survival and was more effective than ciclosporin.