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**Kaempferol 3-Rhamnoside 7-[6-feruloylglucosyl (1→3) rhamnoside]
from *Asplenium prolongatum***

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The taxonomy of the genus *Asplenium* is especially difficult because of morphological variability. It was therefore hoped that chemical studies of the genus, particularly the distribution of flavonoid constituents may provide useful characters to aid classification of that group. From the fronds of *A. prolongatum* collected at Yakushima, a new flavonol glycoside was isolated. The structure was elucidated as kaempferol 3-rhamnopyranoside 7-O-[6-feruloylglucopyranosyl (1→3)-rhamnopyranoside] by means of spectral analysis (FABMS, ^1H - ^1H COSY).

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Phenolic Compounds from *Salix sachalinensis*

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In the continuation of our chemotaxonomic studies on Salicaceous plants, we have revealed the intraspecific chemical variations in *Salix sachalinensis* on the basis of the chemical constituents in their leaves. For the advanced characterization of two chemical races, phenolic compounds in the bark and the wood were investigated. Nine compounds including two novel phenolics were isolated. The known compounds were characterized as quercetin, myricetin, taxifolin, (+)-catechin and (+)-gallocatechin. On the other hand, the structures of new compounds were determined to be *p*-coumaryl alcohol- γ -O- β -D-glucopyranoside for sachalide 1, and 6-(1-*para*-hydroxyphenyl-*trans*-propenyl) catechin-7-O- β -D-glucopyranoside for sachalide 2 by the spectroscopic analysis. The aglycone moiety of the latter compound was a new type skeleton consisting of C₆-C₃-C₆-C₃-C₆ units.

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Revised Structure of a Diterpene from *Euphorbia antiquorum*

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The structure of a new diterpene, antiquorin, was elucidated on the basis of the spectroscopic analysis. The conformation of the ring junction between the A and B rings was concluded by the CD spectral results to be *cis*-fused. By observation of the octant rule for a carbonyl group at C-3, the symbol and intensity of the Cotton effect at 300 nm was used for prediction of the states of the fused rings, and the predicted result led us to propose that the A and B rings were *cis*-fused. Further confirmation of its structure, however, by X ray diffraction showed that the A and B rings are not *cis*-fused, but *trans*-fused. Therefore, the proposed structure of antiquorin must be revised.