〔Chem. Pharm. Bull., **33**, 4034 (1985)〕

Flavonoids Syntheses. II, Synthesis of Flavones with a 2′, 3,′ 6′ Trioxygenated Ring B. MUNEKAZU IINUMA*, TOSHIYUKI TANAKA, MIZUO MIZUNO

Flavones with a trioxygenated ring B in flavone skelton, having an apparent hydroguinone structure, are of interest because of their stability and occurrence in nature. The only known naturally occurring flavone with a 2′, 3′, 6′-trioxygenated B ring is 3′, 5, 6′, 7-tetrahydroxy-2′, 8-dimethoxyflavone isolated from *Scutellaria baicalensis*. In this paper, we describe syntheses of above flavone, together with 2′,5,6′, 7-tetrahydroxy-3′,8-dimethoxy, 2′,3′,5,7-tetrahydroxy-6′,8-dimethoxyflavone as isomers of ring B, and 3′ 5, 6′ 7-tetrahydroxy-2′, 6-dimethoxyflavone as an isomer of ring A, in order to confirm the proposed structure. As the result of comparison with natural flavone, it is make apparent that the proposed structure is correct.

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Flavonoids Syntheses. III. Syntheses of Flavones Isolated from *Scutellaria rehderiana*. MUNEKAZU IINUMA*, TOSHIYUKI TANAKA, MIZUO MIZUNO, ZHI-DA MIN

A new flavone called rehderianin I was isolated from the dried roots of *Scutellaria rehderiana* Diels by Liu et al. Its structure was deduced to be 2′,4′,5-trihydroxy-6,8-dimethoxyflavone. A tetrahydroxy-dimethoxyflavone was also isolated, and was identified as viscidullin III (3,3′,5,7-tetrahydroxy-2′,4′-demethoxyflavone). These two flavones have unprecedented substitutional patterns for Scutellaria flavonoids in the A and B ring. We described in this paper the syntheses of rehderianin I, viscidullin III and related compounds. As results of comparison with natural products,rehderianin I and viscidullin III were revised 2′,5,5′-trihydroxy-7,8-dimethoxy-, and 3′,5,6′,7-tetrahydroxy-2′,8-dimethoxyflavone, respectively.

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Alkaloids of *Stephania sinica*. MIN ZHI-DA, LIN GE, XU GUANG-XI, MUNEKAZU IINUMA, TOSHIYUKI TANAKA, MIZUO MIZUNO

Stephania sinica DIELS (Menispermaceae), which is called Runan in China, is distributed in the Hubei, Gueizhou and Yunnan provinces of China. Runan was mistakenly identified as growing in Guangxi province. Several isoquinoline alkaloids have been reported in *Stephania* spp. One of them is a hasbanane alkaloid which was isolated from *S.* japonica. The chemistry of S. sinica has not been studied previously. We report here the preliminary chemical study of this plant; a new alkaloid having hasbanan skelton named runanine was isolated from the roots together with two known compounds, cepharanthine and β-sitosterol.