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Three Prenylflavanones from *Euchresta japonica*

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Three new prenylflavanones, euchrenones a₁, a₂ and a₃, were isolated from the roots of *Euchresta japonica*. Euchrenone a₁, C₂₅H₂₄O₅ ([M⁺] 404.1623, calcd. 404.1623) was deduced one of the alternative structures of 5-hydroxy-[6'',6''-dimethylpyrano (2'',3'':7,8)]-[6''',6'''-dimethylpyrano (2''',3''':4',3')] flavanone or 5-hydroxy-[6'',6''-dimethylpyrano (2'',3'':7,6)] derivate. The oxydative material of euchrestaflavanone A by DDQ supported the structure for euchretin a₁ could be presented as the former. Euchrenones a₂ and a₃ were also concluded to be 5,4'-dihydroxy-3'-(γ , γ -dimethylallyl)-[6'',6''-dimethylpyrano (2'',3'':7,8)] flavanone and 5,7,4'-trihydroxy-6,8,3'-tri-(γ , γ -dimethylallyl) flavanone, respectively.

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Prenylisoflavones from *Euchresta japonica*

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Three new prenylisoflavones, designated euchrenones b₁, b₂ and b₃, were isolated from the roots of *Euchresta japonica* Hook. f. ex Regel (Leguminosae) collected at Mt Taradake, Nagasaki prefecture, Japan. The roots of *E. japonica* have been used traditionally as a substituent of *Sophora tonkinensis* Gagnep. for the treatment of tumors. The structures of euchrenone b₁, C₃₀H₃₄O₅ [M⁺ at m/z 474], euchrenone b₂, [M⁺ m/z 490] and euchrenone b₃ [M⁺ m/z 462] were concluded to be 5,7,4'-trihydroxy-6,8,3'-tri-(γ , γ -dimethylallyl) isoflavone, 5,7,2',4'-tetrahydroxy-6,8,3'-tri-(γ , γ -dimethylallyl) isoflavone and 5-hydroxy-6-isoprenyl-[6'',6''-dimethylpyrano (2'',3'':7,8)]-2'-methoxy-4',5'-methylenedioxyisoflavone on the basis of spectroscopic methods and chemical evidence.

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A Novel Coumaronochromone from the Stems of *Euchresta japonica* and its Antibacterial Activity

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In the course of our continuing chemotaxonomical search on the genus *Euchresta*, a new highly substituted coumaronochromone, designated as euchretin A mp 208-209°C, was isolated as pale yellow needles from the C₆H₆ extract of the stems of *E. japonica* Hooker fil. ex Regel. The structure was determined to be 5,7,5'-trihydroxy-6,8-di(3,3-dimethylallyl)-[6''',6'''-dimethylpyrano (2''',3''':4',3')] coumaronochromone by the spectral evidences. The efficiency of euchretin A against bacteria was examined. Euchretin A showed much stronger effect than that of *p*-hydroxybenzoyl methyl ester against *Escherchia coli*, *Staphylococcus aureus* and *Candida tropicalis*.