The bioassay-guided fractionation of the methylene chloride soluble portion of a methanol extract of Gastrodia elata tubers led to the isolation of a new furfural, 5-(4-hydroxy-benzyloxymethyl)-furan-2-carbaldehyde (2), together with four known compounds (1, 3-5), which exhibited potent inhibitory activity at the concentration of 25 μg/ml on melanin biosynthesis in cultured B-16 mouse melanoma cells.

[PD2-55] [2003-10-11 09:00 - 12:30 / Grand Ballroom Pre-function]

The antioxidative compounds of the Aster tataricus

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The Aster tataricus is a chinese traditional medicine called "Ziwan" which has an expectorative and remediable cough action. The anti-oxidant activities of A. tataricus were investigated. The MeOH extract of A. tataricus showed strong anti-oxidant activity in the NBT(nitroblue tetrazolium) method system, and thus fractionated with several solvents in to the EtOAc, n-BuOH, CH_2Cl_2, H_2O fraction. The EtOAc soluble fraction exhibiting strong anti-oxidant activity was further purified by repeated silica gel and sephadex LH-20 column chomatography. Three compounds were isolated from the EtOAc fraction by the activity-oriented purification procedure. Their structures were determind as quercetin, kaempferol, kaempferol 3-O-glucoside, respectively, on the basis of spectral data. The antioxidative compounds of the EtOAc fraction of A. tataricus is under study.

[PD3-1] [2003-10-11 09:00 - 12:30 / Grand Ballroom Pre-function]

The compostions of essential oils from Thymus species and their antifungal activities

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To develop useful antifungal agents from essential oils in Korean plant resources, the activities of Thymus quinquecostatus and T. quinquecostatus var. japonica were evaluated against ten pathogenic fungi. Their results were compared with those of T. vulgaris, which is native to Europe.The essential oils of the tested Thymus species were obtained by steam distillation using a simultaneous steam distillation-extraction apparatus. The above ground parts of plants cultivated in the herbal garden of Duksung Women"s University were used. The composition of the essential oils were analyzed and compared by GC-MS.The antifungal activity of the essential oil fraction of Thymus species and thymol, the main component of this oil, were investigated against Aspergillus niger, A. flavus, Trichoderma viride, Candida albicans, C. utilis, C. tropicalis, Cryptococcus neoformans, Trichosporon mucoides, Trychophyton tonsurans, and Blastoschizomyces capitatus. The MICs and the growth inhibition against the fungi was evaluated by broth dilution method and disk diffusion test. Additionally, the combination effects of the essential oils with synthetic antibiotics were estimated.

[PD3-2] [2003-10-11 09:00 - 12:30 / Grand Ballroom Pre-function]

Inhibitory effects of Saiko-ka-Ryukotsu-Borei-To on the migration and proliferation of vascular smooth muscle cell and suppression of carotid intimal thickness after balloon injury in rats

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Objectives:We have reported that oral administration of Saiko-ka-Ryukotsu-Borei-To (SRB), a traditional