almost equal to that of control. From these results, the role of acid protease and calcium ion was discussed.

The Constituents of the Essential Oil from the Flower of Yucca gloriosa L. (p. 649~653)
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The essential oil was obtained in 0.042% yield by steam distillation from the fresh flowers of Yucca gloriosa L., which were collected in Higashiosaka-shi in May 1976. The essential oil was separated into three parts by chemical treatment: neutral, sodium carbonate soluble and sodium hydroxide soluble parts. The neutral part was chromatographed on activated alumina, using n-hexane, benzene, ethyl ether, ethyl acetate and methanol successively. Each fraction was investigated by gas chromatography, instrumental analysis and each component was identified by comparison with authentic samples.

As a result, it was found that the neutral part of the essential oil contained α-pinene, camphene, β-pinene, 1-p-menthene, limonene, p-cymene, terpinolene, α-copaene, γ-gurjunene, aromadendrene, α-muurolene, γ-muurolene, δ-cadinene, γ-cadinene, n-heptadecane, cis-8-heptadecene, n-nonadecane, cis-9-nonadecene, n-hexanol, 3-hexen-1-ol, 3-octanol, 1-octen-3-ol, linalool, α-terpineol, citronellol and aliphatic hydrocarbons of C₁₀~C₃₂. The sodium carbonate part contained aliphatic fatty acids of C₃~C₁₈. The sodium hydroxide part contained guaiacol, phenol, o-cresol, m-cresol, p-cresol, eugenol, carvacrol and chavicol.

The hydrocarbons such as n-heptadecane, cis-8-heptadecene, n-nonadecane and cis-9-nonadecene were the characteristic constituents of this essential oil.

Partial Purification and Some Properties of Dehydroacetic Acid Hydrolase and Triacetic Acid Lactone Hydrolase from Pseudomonas sp. C-5-1 [Note] (p. 655~658)
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Culture conditions for the formation of dehydroacetic acid hydrolase (DHA hydrolase) and triacetic acid lactone hydrolase (TAL hydrolase) by Pseudomonas sp. C-5-1, and some properties of their enzymes were investigated.

DHA in the culture medium was necessary for the enzyme formation and the optimum medium was determined as follows: DHA-Na, 0.2%; KH₂PO₄, 0.1%; MgSO₄·7H₂O, 0.05%; NH₄NO₃, 0.1%; yeast extract, 0.1%. Both enzymes have been partially purified by DEAE-cellulose column chromatography and gel filtration on Sephadex G-75. Optimum pH and temperature for DHA hydrolase activity were 5.0 and 55~60°C, respectively, and the effect of metal ions such as Mg²⁺, Mn²⁺, Zn²⁺, Cu²⁺ and Hg²⁺ on the activity was not determined.

On the other hand, optimum pH and temperature for TAL hydrolase activity were found to be 6.0~7.5 and 50°C, respectively. This enzyme was activated by the addition of Mn²⁺, but was completely inhibited with EDTA, Cu²⁺, Zn²⁺ and Hg²⁺.

Essential Oil of Mentha gentilis L. Containing 1-Acetoxymenthone (Studies on Chemical Constituents of Wild Mints. Part XI) [Note] (P. 659~661)
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The authors have examined the essential oil of Mentha gentilis L. containing (+)-1-acetoxymenthone (1.7%) as a characteristic component. As a result, thirty-four compounds accompanied with the following two terpenic alcohols were detected as the constituents of the oil: (+)-(1R:4S)-4-hydroxypiperitone (0.1%) and lavandulol (0.1%). The former was newly isolated as a natural substance which was identical with the product derived from (+)-4-hydroxypiperitone or (+)-pulegone, and the latter, as a new component of the gentilis oil.

From the seasonal variation of the contents identified in the oil, the biochemical properties of this strain were also discussed.

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Note: [Note] indicates a note or additional information.