

NOTIZEN

***n*-Paraffins from the Flowers and Leaves of *Parabenzoin praecox* (Sieb. et Zucc.) Nakai (Lauraceae)**

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P. praecox (Sieb. et Zucc.) Nakai (Lauraceae), flowers and
leaves, *n*-paraffins (C₁₇ to C₃₄)

In the course of the chemotaxonomical study of
Lauraceae family, *n*-paraffin constituents of the
leaves and flowers of *P. praecox* were investigated.

Flowers. The flowers (12 g), collected on March
31st at Hiroshima Prefecture in Japan, were ex-
tracted with *n*-hexane (500 ml) for one week. The
n-paraffin fraction (5.7 mg) was isolated from
the extractives by means of column chromatography
over *n*-hexane and then by Molecular Sieb 5A
treatment.

The following *n*-paraffins were detected by gas
chromatography (SE-30 10% on Chromosorb W,
temperature programmed 190 to 320 °C, 2 °C/
min): *n*-Paraffins C₁₇ to C₁₉ trace, C₂₀ 0.1%, C₂₁
11.6%, C₂₂ 0.7%, C₂₃ 30.1%, C₂₄ 1.6%, C₂₅ 25.8%,
C₂₆ 0.7%, C₂₇ 14.7%, C₂₈ 0.3%, C₂₉ 13.3%, C₃₀
0.1%, C₃₁ 1.0%. Odd paraffins : even paraffins =
96.5 : 3.5.

Leaves. The leaves (250 g) which collected on
May 25th in Hiroshima Prefecture were extracted
with *n*-hexane for one week. The following *n*-paraf-
fins (479.8 mg) were detected by gas chromato-
graphy as the same method mentioned above:
n-Paraffins C₂₁ 0.2%, C₂₂ 0.3%, C₂₃ 1.4%, C₂₄ 0.5%,
C₂₅ 3.8%, C₂₆ 0.7%, C₂₇ 19.1%, C₂₈ 1.0%, C₂₉
55.1%, C₃₀ 1.3%, C₃₁ 16.2%, C₃₂ trace, C₃₃ 0.4%,
C₃₄ trate. Odd paraffins : even paraffins = 96.2 : 3.8

The *n*-paraffins of *P. praecox* are similar to those
of other Lauraceae plants^{1, 2} as shown in Table I.
The main constituent of the leaves is C₂₉ paraffin
and that of the flowers is C₂₃ paraffin.

Table I. *n*-Paraffin constituents of lauraceae plants. A: *Cinnamomum camphora* Sieb. B: *Lindera obtusiloba* Blume. C: *Lit-
sea japonica* (Thunb.) Juss. D: *Lindera umbellata* Thunb. E: *Parabenzoin praecox* (Sieb. et Zucc.) Nakai. F: *Lindera umbel-
lata* Thunb.-flowers. G: *Parabenzoin praecox* (Sieb. et Zucc.) Nakai-flowers.

<i>n</i> -Paraffins	Constituents [%]*						
	A	B	C	D	E	F	G
C ₁₆	trace	1.1	—	0.1	—	—	—
C ₁₇	trace	0.3	—	0.2	—	—	trace
C ₁₈	trace	1.3	—	0.3	—	—	trace
C ₁₉	trace	0.4	trace	0.3	—	—	trace
C ₂₀	0.2	1.3	trace	0.6	—	0.3	0.1
C ₂₁	0.5	0.4	trace	0.3	0.2	36.5	11.6
C ₂₂	0.8	1.3	trace	0.6	0.3	2.8	0.7
C ₂₃	2.6	1.4	0.6	1.3	1.4	46.7	30.1
C ₂₄	2.4	1.3	2.1	1.2	0.5	0.7	1.6
C ₂₅	7.1	2.9	3.4	4.5	3.8	8.5	25.8
C ₂₆	—	1.9	7.0	1.5	0.7	—	0.7
C ₂₇	23.9	25.6	14.4	18.8	19.1	2.8	14.7
C ₂₈	4.3	1.6	18.8	1.5	1.0	—	0.3
C ₂₉	43.3	45.1	23.8	53.3	53.1	0.9	13.3
C ₃₀	1.2	1.6	14.2	1.3	1.3	0.05	0.1
C ₃₁	8.8	11.5	14.8	15.0	16.2	0.25	1.0
C ₃₂	trace	trace	trace	—	trace	—	—
C ₃₃	trace	trace	0.9	—	0.4	—	—
C ₃₄	trace	trace	—	—	trace	—	—

* The percentage of the constituents of the oils was calculated from the areas of the peaks of the gas chromatogram.

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¹ H. Komae and N. Hayashi, *Phytochem.* **10**, 2834 [1971].
² N. Hayashi and H. Komae, *Z. Naturforsch.* **27 b**, 1438
[1972].



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