

未知)

[構造式]有効な構造式はない

[分子式] $C_{21}H_{20}O_{17}S_2$

[分子量] 608.511

[正確な分子量] 608.014195

[基原] 次の植物から分離: *Phoenix dactylifera*

-----文献-----

Karrer, W. et al., Konstitution und Vorkommen der Organischen Pflanzenstoffe, 2nd edn., Birkhäuser Verlag, Basel, 1972, nos. 1470; 1473, (生育)

Cody, V. et al., Plant Flavonoids in Biology and Medicine II, (eds., Cody, V. et al), A.R. Liss, N.Y., 1988, (生化学的性質)

The Flavonoids: Advances in Research since 1980, (Ed. Harborne, J.B.), Chapman and Hall, London, 1988

§ 4',5,7-Trihydroxy-3'-methoxyflavone; 7-O-(Disulfo-β-D-glucopyranoside)

[CAS No.] 121283-88-3

[化合物分類] フラボノイド (Flavone; 4 × O-置換基), フラボノイド (Flavonoids 構造は一部又は全てが未知)

[構造式] 有効な構造式はない

[分子式] $C_{22}H_{22}O_{17}S_2$

[分子量] 622.538

[正確な分子量] 622.029845

[基原] 次の植物から分離: *Phoenix dactylifera*

-----文献-----

The Flavonoids: Advances in Research since 1980, (Ed. Harborne, J.B.), Chapman and Hall, London, 1988

*****テンダイウヤク (*Lindera root*) *****

§ § クスノキ科テンダイウヤク (*Lindera strychnifolia* F. Villar) の根。

§ Bilindestrenolide

[CAS No.] 201739-00-6

[化合物分類] テルペノイド (12,8-Eudesmanolide and furano-eudesmane sesquiterpenoid)

[構造式]

[分子式] $C_{30}H_{44}O_4$

[分子量] 458.596

[正確な分子量] 458.24571

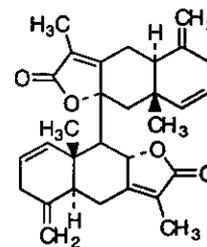
[一般的性質] 9'-Config. not clear from the lit.

[基原] *Lindera strychnifolia*

[性状] 結晶

[比旋光度]: $[\alpha]_D^{15} +201.7$ (c, 0.2 in $CHCl_3$)

[その他のデータ] Mp >300 °C



-----文献-----

Kouno, I. et al., Phytochemistry, 1997, 46, 1283-1284, (分離, H-NMR, C13-NMR)

§ 1,3,7(11)-Elematrien-12,8-olide; 8 α-form

[化学名・別名] Isogermafurenolide

[CAS No.] 20267-89-4

[化合物分類] テルペノイド (Elemene sesquiterpenoid)

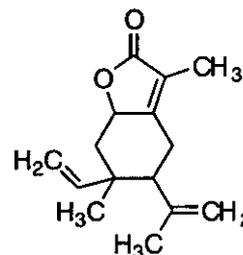
[構造式]

[基原] *Lindera strychnifolia* の根

[性状] 結晶 (petrol/Et₂O)

[融点] Mp 85-85.5 °C

[比旋光度]: $[\alpha]_D^{22} +5$ (c, 0.3 in dioxane)



-----文献-----

Takeda, K. et al., J.C.S. (C), 1968, 569

§ 8,12-Epoxy-1(10),4,7,11-germacratetraen-15-ol; (1(10)E,4Z)-form, Ac

[化学名・別名] Neosericenyl acetate

[化合物分類] テルペノイド (12,8-Germacranolide andfuranogermacrane sesquiterpenoid)

[構造式]

[分子式] $C_{17}H_{22}O_3$

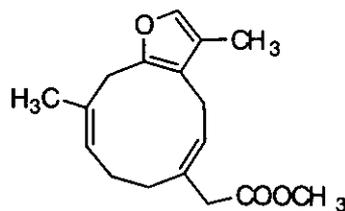
[分子量] 274.359

[正確な分子量] 274.156895

[基原] *Lindera strychnifolia*

[性状] 結晶 (Et:O)

[融点] Mp 68-69 °C



-----文献-----

Tada, H. et al., J.C.S. (C), 1971, 1070

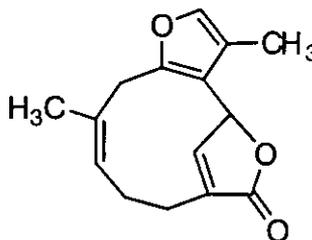
§ 8,12-Epoxy-1(10),4,7,11-germacratetraen-15,6-olide; (1(10)E,6 α)-form

[化学名・別名] Linderalactone

[CAS No.] 728-61-0

[化合物分類] テルペノイド (12,8-Germacranolide andfuranogermacrane sesquiterpenoid)

[構造式]



[基原] *Lindera strychnifolia*

[性状] 結晶 (MeOH)

[融点] Mp 140 °C

[比旋光度]: $[\alpha]_D^{26} +102$ (c, 1 in dioxan)

-----文献-----

Takeda, K. et al., J.C.S. (C), 1969, 1491; 2786, (分離, 構造決定, 絶対構造)

Takeda, K. et al., J.C.S. (C), 1970, 973, ((-)-Linderadine)

Achmad, S.A. et al., Aust. J. Chem., 1992, 445, (分離, 結晶構造)

Okada, K. et al., Acta Cryst. C, 1993, 49, 341, (結晶構造)

Li, W.-S. et al., Phytochemistry, 1993, 32, 1503, ((+)-Linderadine, 結晶構造)

§ 8,12-Epoxy-1(10),4,7,11-germacratetraen-15,6-olide; (1(10)E,6 α)-form, 4 β,5 β-Epoxyde

[化学名・別名] 4,5;8,12-Diepoxy-1(10),7,11-germacratrien-15,6-olide. Linderane

[CAS No.] 13476-25-0

[化合物分類] テルペノイド (12,8-Germacranolide andfuranogermacrane sesquiterpenoid)

[構造式]

[分子式] $C_{19}H_{26}O_4$

[分子量] 260.289

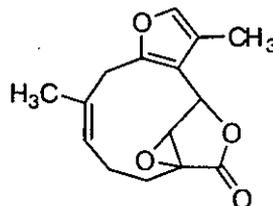
[正確な分子量] 260.10486

[基原] *Lindera strychnifolia*, *Cryptocarya densiflora*

[性状] 結晶 (Me₂CO)

[融点] Mp 190-191 °C で分解

[比旋光度]: $[\alpha]_D^{24} +180.3$ (c, 1 in dioxan)



-----文献-----

Takeda, K. et al., J.C.S. (C), 1969, 1491; 2786, (分離, 構造決定, 絶対構造)

Takeda, K. et al., J.C.S. (C), 1970, 973, ((-)-Linderadine)

Li, W.-S. et al., Phytochemistry, 1993, 32, 1503, ((+)-Linderadine, 結晶構造)

§ 8,12-Epoxy-1(10),4,7,11-germacratetraen-15,6-olide; (1(10)Z,6 α)-form

[化学名・別名] Neolinderalactone

[CAS No.]26379-18-0

[化合物分類]テルペノイド(12,8-Germacranolide andfuranogermacrane sesquiterpenoid)

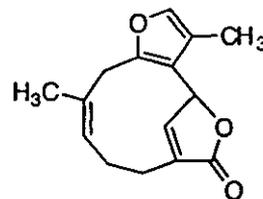
[構造式]

[基原]*Lindera strychnifolia*

[性状]プリズム結晶 (MeOH)

[融点]Mp 116-118 °C

[比旋光度]: $[\alpha]_D^{25} +100$ (c, 1.09 in EtOH)



-----文献-----

Joshi, B.S. et al., Tetrahedron, 1967, 23, 261, (構造決定)

Takeda, K. et al., J.C.S. (C), 1969, 1491; 2786, (分離, 構造決定, 絶対構造)

Takeda, K. et al., J.C.S. (C), 1970, 973, ((-)-Linderadine)

Achmad, S.A. et al., Aust. J. Chem., 1992, 445, (分離, 結晶構造)

Okada, K. et al., Acta Cryst. C, 1993, 49, 341, (結晶構造)

Li, W.-S. et al., Phytochemistry, 1993, 32, 1503, ((+)-Linderadine, 結晶構造)

§ 1,4(15),7(11)-Eudesmatrien-12,8-olide; 8 α -form

[化学名・別名]Lindestrenolide

[CAS No.]20267-90-7

[化合物分類]テルペノイド(12,8-Eudesmanolide andfuranoeudesmane sesquiterpenoid)

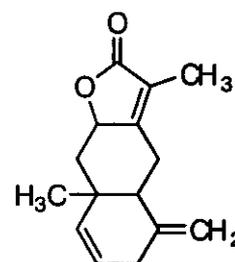
[構造式]

[基原]*Lindera strychnifolia*

[性状]オイル

[沸点]Bp_{0.2} 100-105 °C (bath)

[比旋光度]: $[\alpha]_D^{23} +189$ (c, 1.1 in dioxan)



-----文献-----

Takeda, K. et al., J.C.S. (C), 1968, 569

Tada, H. et al., J.C.S. (C), 1971, 1070

§ 1,4(15),7(11)-Eudesmatrien-12,8-olide; 8 α -form, 8,9-Didehydro

[化学名・別名]1,4(15),7(11),8-Eudesmatetraen-12,8 α -olide. Dehydrolindestrenolide

[CAS No.]32810-35-8

[化合物分類]テルペノイド(12,8-Eudesmanolide andfuranoeudesmane sesquiterpenoid)

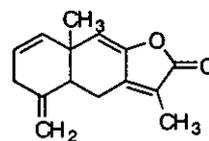
[構造式]

[基原]*Lindera strychnifolia*

[性状]結晶 (EtO/petrol)

[融点]Mp 111-113 °C

[比旋光度]: $[\alpha]_D^{26} +180.4$ (c, 1 in EtOH)



-----文献-----

Takeda, K. et al., J.C.S. (C), 1968, 569

Tada, H. et al., J.C.S. (C), 1971, 1070

§ 2,7(14),9-Humulatriene

[化学名・別名]1,4,4-Trimethyl-8-methylene-1,5-cycloundecadiene. β -Humulene

[CAS No.]116-04-1

[化合物分類]テルペノイド(Humulane sesquiterpenoid)

[構造式]

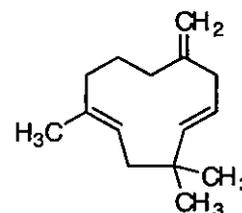
[分子式]C₁₅H₂₄

[分子量]204.355

[正確な分子量]204.1878

[基原]ホップと *Lindera strychnifolia*

[性状]オイル



-----文献-----

Naya, Y. et al., Chem. Lett., 1973, 727

§ 8-Hydroxy-1,3,7(11)-elematrien-12,8-olide; 8 β -form

[化学名・別名] 8-Hydroxyisogermafurenolide

[CAS No.] 20267-91-8

[化合物分類] テルペノイド (Elemene sesquiterpenoid)

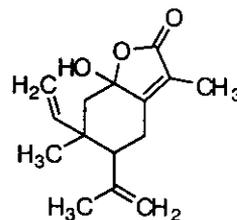
[構造式]

[基原] *Lindera strychnifolia*

[性状] 結晶 (Et₂O/petrol)

[融点] Mp 160-161 °C

[比旋光度]: $[\alpha]_D^{22} +4.7$ (c, 1 in dioxan)



-----文献-----

Takeda, H. et al., J.C.S. (C), 1968, 569

§ 8-Hydroxy-1,4(15),7(11)-eudesmatrien-12,8-olide; 8 β -form

[化学名・別名] Hydroxylindestrenolide

[CAS No.] 20267-92-9

[化合物分類] テルペノイド (12,8-Eudesmanolide and furanoeudesmane sesquiterpenoid)

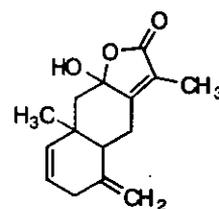
[構造式]

[基原] *Lindera strychnifolia*

[性状] 結晶 (EtOAc)

[融点] Mp 220-221 °C

[比旋光度]: $[\alpha]_D^{22} +209.8$ (c, 1 in dioxan)



-----文献-----

Takeda, K. et al., J.C.S. (C), 1968, 569

§ Isogermafurene

[化学名・別名] Isofuranogermacrene. Curzerene

[CAS No.] 17910-09-7

[化合物分類] テルペノイド (Elemene sesquiterpenoid)

[構造式]

[分子式] C₁₅H₂₀O

[分子量] 216.322

[正確な分子量] 216.151415

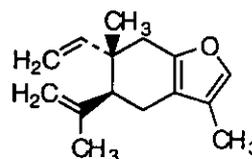
[基原] *Lindera strychnifolia* の根から分離される。 *Curcuma zedoaria*, *Curcuma* spp.

[性状] オイル

[比旋光度]: $[\alpha]_D^{20} -0.7$ (c, 0.87 in CHCl₃)

[UV]: [neutral] λ_{max} 210 (log ϵ 3.8) (EtOH)

[その他のデータ] たぶん天然物ではない



-----文献-----

Ishii, H. et al., Tetrahedron, 1968, 24, 625, (分離)

Hikino, H. et al., Chem. Pharm. Bull., 1970, 18, 752, (分離, 絶対構造)

Lu, Y.-C. et al., CA, 1981, 94, 7575r, (Neocurzerene)

§ Isolinderalactone

[CAS No.] 957-66-4

[化合物分類] テルペノイド (Elemene sesquiterpenoid)

[構造式]

[分子式] C₁₅H₁₆O₃

[分子量] 244.29

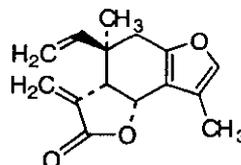
[正確な分子量] 244.109945

[基原] *Lindera strychnifolia* の根

[性状] 結晶 (Me₂CO)

[融点] Mp 118-121 °C

[比旋光度]: $[\alpha]_D -224.7$ (c, 0.52 in dioxan)



[UV]:[neutral] λ_{\max} 210 (ϵ 16700) (MeOH)

-----文献-----

Takeda, K. et al., J.C.S., 1964, 4578, (分離)

Takeda, K. et al., J.C.S. (C), 1969, 1491, (構造決定)

§ Isolinderalactone; 3,4 β -Dihydro

[化学名・別名] Dihydroisolinderalactone

[CAS No.] 19332-11-7

[化合物分類] テルペノイド (Elemene sesquiterpenoid)

[構造式]

[分子式] $C_{15}H_{18}O_3$

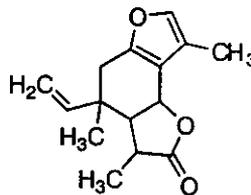
[分子量] 246.305

[正確な分子量] 246.125595

[基原] *Lindera strychnifolia*

[性状] 結晶 (MeOH)

[融点] Mp 124-126 °C で分解



-----文献-----

Takeda, K. et al., J.C.S., 1964, 4578, (分離)

Takeda, K. et al., J.C.S. (C), 1969, 1491, (構造決定)

§ Isolinderalactone; 3,4 α -Dihydro

[化学名・別名] 4-Epidihydroisolinderalactone. 4-*epi*-Dihydroisolinderalactone

[CAS No.] 19332-12-8

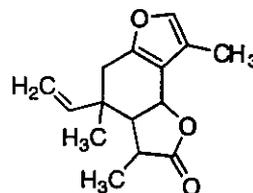
[化合物分類] テルペノイド (Elemene sesquiterpenoid)

[構造式]

[基原] *Lindera strychnifolia*

[性状] 結晶 (MeOH)

[融点] Mp 124-126 °C で分解



-----文献-----

Takeda, K. et al., J.C.S., 1964, 4578, (分離)

Takeda, K. et al., J.C.S. (C), 1969, 1491, (構造決定)

§ Lindenene

[CAS No.] 24173-83-9

[化合物分類] テルペノイド (Cycloeudesmane sesquiterpenoid)

[構造式]

[分子式] $C_{15}H_{18}O$

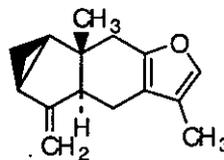
[分子量] 214.307

[正確な分子量] 214.135765

[基原] *Lindera strychnifolia*

[性状] オイル

[比旋光度]: $[\alpha]_D -50.1$ (c, 1.6 in $CHCl_3$)



-----文献-----

Takeda, K. et al., Tetrahedron, 1964, 20, 2655; 2991, (Lindenol)

Takeda, K. et al., J.C.S. (C), 1967, 631; 1969, 1920; 2786, (Isolinderoxide, Linderene, Lindenone)

Ishii, H. et al., Tetrahedron, 1968, 24, 625, (Linderoxide)

§ Lindenene; 6 α -Hydroxy

[化学名・別名] Lindenol. Linderene

[CAS No.] 26146-27-0

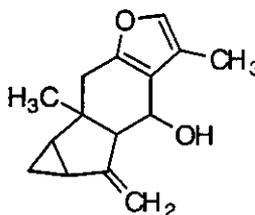
[化合物分類] テルペノイド (Cycloeudesmane sesquiterpenoid)

[構造式]

[分子式] $C_{15}H_{18}O_2$

[分子量] 230.306

[正確な分子量] 230.13068



[基原] *Lindera strychnifolia*
[性状] 結晶
[融点] Mp 145 °C
[比旋光度]: $[\alpha]_D +15.1$ (CHCl₃)

-----文献-----

Takeda, K. et al., *Tetrahedron*, 1964, 20, 2655; 2991, (Lindenol)
Takeda, K. et al., *J.C.S. (C)*, 1967, 631; 1969, 1920; 2786, (Isolinderoxide, Linderene, Lindenone)
Ishii, H. et al., *Tetrahedron*, 1968, 24, 625, (Linderoxide)

§ Lindenene; 6 α -Acetoxy

[化合物分類] テルペノイド (Cycloeudesmane sesquiterpenoid)

[構造式]

[分子式] C₁₇H₂₀O₃

[分子量] 272.343

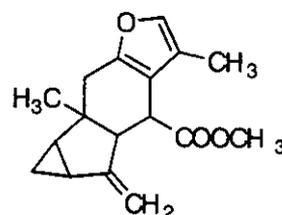
[正確な分子量] 272.141245

[基原] 次の植物から分離: *Lindera strychnifolia*

[性状] プリズム結晶 (petrol)

[融点] Mp 79-82 °C

[比旋光度]: $[\alpha]_D^{25} +25.7$ (c, 1.168 in EtOH)



-----文献-----

Takeda, K. et al., *Tetrahedron*, 1964, 20, 2655; 2991, (Lindenol)
Takeda, K. et al., *J.C.S. (C)*, 1967, 631; 1969, 1920; 2786, (Isolinderoxide, Linderene, Lindenone)
Ishii, H. et al., *Tetrahedron*, 1968, 24, 625, (Linderoxide)
Tori, K. et al., *Tet. Lett.*, 1975, 4583, (C13-NMR)

§ Lindenene; 6-Oxo

[化学名・別名] Lindenone

[CAS No.] 26379-19-1

[化合物分類] テルペノイド (Cycloeudesmane sesquiterpenoid)

[構造式]

[分子式] C₁₅H₁₆O₂

[分子量] 228.29

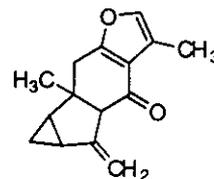
[正確な分子量] 228.11503

[基原] *Lindera strychnifolia*

[性状] 結晶 (petrol)

[融点] Mp 107.5-108.5 °C

[比旋光度]: $[\alpha]_D -333$ (c, 0.2 in dioxan)



-----文献-----

Takeda, K. et al., *Tetrahedron*, 1964, 20, 2655; 2991, (Lindenol)
Takeda, K. et al., *J.C.S. (C)*, 1967, 631; 1969, 1920; 2786, (Isolinderoxide, Linderene, Lindenone)
Ishii, H. et al., *Tetrahedron*, 1968, 24, 625, (Linderoxide)

§ Lindenene; 13-Methoxy

[化学名・別名] Linderoxide

[CAS No.] 17910-10-0

[化合物分類] テルペノイド (Cycloeudesmane sesquiterpenoid)

[構造式]

[分子式] C₁₆H₂₀O₂

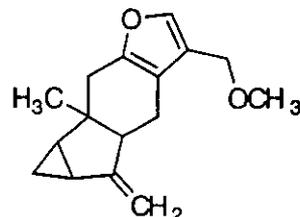
[分子量] 244.333

[正確な分子量] 244.14633

[基原] *Lindera strychnifolia*

[性状] オイル

[比旋光度]: $[\alpha]_D^{21} -52.5$ (c, 0.8 in CHCl₃)



-----文献-----

Takeda, K. et al., *Tetrahedron*, 1964, 20, 2655; 2991, (Lindenol)

Takeda, K. et al., J.C.S. (C), 1967, 631; 1969, 1920; 2786, (Isolinderoxide, Linderene, Lindenenone)
Ishii, H. et al., Tetrahedron, 1968, 24, 625, (Linderoxide)

§ Lindene; $\Delta^{4,5}$ -Isomer, 13-methoxy

[化学名・別名] Isolinderoxide

[CAS No.] 15004-40-7

[化合物分類] テルペノイド (Cycloeudesmane sesquiterpenoid)

[構造式]

[分子式] $C_{16}H_{20}O_2$

[分子量] 244.333

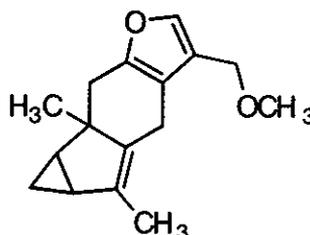
[正確な分子量] 244.14633

[基原] *Lindera strychnifolia* の根

[性状] オイル

[沸点] $B_{p,3}$ 97-100 °C

[比旋光度]: $[\alpha]_D^{25}$ -238 (c, 1.5 in dioxane)



-----文献-----

Takeda, K. et al., Tetrahedron, 1964, 20, 2655; 2991, (Lindenenol)

Takeda, K. et al., J.C.S. (C), 1967, 631; 1969, 1920; 2786, (Isolinderoxide, Linderene, Lindenenone)

Ishii, H. et al., Tetrahedron, 1968, 24, 625, (Linderoxide)

Tori, K. et al., Tet. Lett., 1975, 4583, (C13-NMR)

§ Lindestrene

[化学名・別名] Furanoeudesma-1,4(15)-diene

[CAS No.] 2221-88-7

[化合物分類] テルペノイド (12,8-Eudesmanolide and furanoeudesmane sesquiterpenoid)

[構造式]

[分子式] $C_{15}H_{18}O$

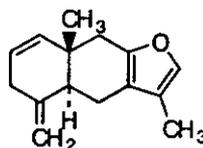
[分子量] 214.307

[正確な分子量] 214.135765

[基原] *Lindera strychnifolia*

[沸点] $B_{p,2}$ 100-102 °C

[比旋光度]: $[\alpha]_D^{25}$ -63.4 (c, 0.8 in dioxan)



-----文献-----

Hikino, H. et al., Chem. Pharm. Bull., 1962, 10, 641, (構造決定)

Minato, H. et al., J.C.S. (C), 1966, 1866; 1968, 621, (合成法)

Takeda, K. et al., J.C.S. (C), 1969, 1920, (構造決定)

§ Strychnilactone

[CAS No.] 246167-10-2

[化合物分類] テルペノイド (Secoeudesmane sesquiterpenoid), テルペノイド (Cycloeudesmane sesquiterpenoid)

[構造式]

[分子式] $C_{17}H_{24}O_6$

[分子量] 324.373

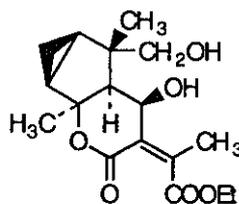
[正確な分子量] 324.15729

[基原] *Lindera strychnifolia*

[性状] 結晶 ($CHCl_3/MeOH$)

[融点] M_p 181-182 °C

[比旋光度]: $[\alpha]_D^{20}$ -267.6



-----文献-----

Kouno, I. et al., Chem. Pharm. Bull., 1999, 47, 1056, (分離, H-NMR, 結晶構造)

*****テンマ (Tenma) *****

§ § ラン科オニノヤガラ (*Gastrodia elata* Blume) の塊茎。

§ Bis(4-hydroxybenzyl) ether

[化学名・別名] 4,4'-Dihydroxydibenzyl ether. 4,4'-Oxybis[methylene] bisphenol

[化合物分類] 単環芳香族 (Simple benzyl alcohol)

[構造式]

[分子式] $C_{14}H_{14}O_2$

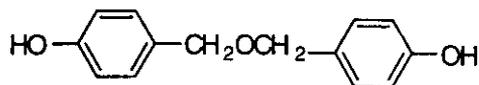
[分子量] 230.263

[正確な分子量] 230.094295

[基原] 次の植物から分離: *Gastrodia elata* (source of oriental drug "Tianma"). Constit. of *Eulophia nuda*

[性状] 板状結晶 (CH_2Cl_2)

[融点] Mp 63-65 °C. Mp 95-96 °C



-----文献-----

Taguchi, H. et al., Chem. Pharm. Bull., 1981, 29, 55

Tuchinda, P. et al., Phytochemistry, 1989, 28, 2463, (分離, H-NMR)

§ Bis(4-hydroxybenzyl) ether; Mono-β-D-glucopyranoside

[化学名・別名] Gastrodioside

[CAS No.] 77162-64-2

[化合物分類] 単環芳香族 (Simple benzyl alcohol)

[構造式]

[分子式] $C_{20}H_{24}O_8$

[分子量] 392.405

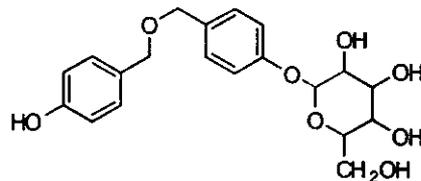
[正確な分子量] 392.14712

[基原] *Gastrodia elata*

[性状] 針状結晶 + 1/2H₂O

[融点] Mp 162-164 °C

[比旋光度]: $[\alpha]_D^{25} -42.4$ (c, 0.5 in EtOH)



-----文献-----

Taguchi, H. et al., Chem. Pharm. Bull., 1981, 29, 55

Tuchinda, P. et al., Phytochemistry, 1989, 28, 2463, (分離, H-NMR)

§ Bis(4-hydroxybenzyl) sulfide; S-Oxide

[化学名・別名] 4,4'-[Sulfinylbis(methylene)] bis[phenol] (CAS 名). Bis(4-hydroxybenzyl) sulfoxide.

4-Hydroxybenzyl sulfoxide

[CAS No.] 189639-17-6

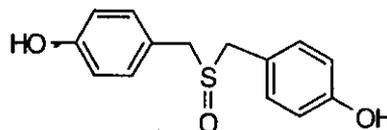
[構造式]

[分子式] $C_{14}H_{14}O_3S$

[分子量] 262.329

[正確な分子量] 262.066365

[基原] *Gastrodia elata* の塊茎



-----文献-----

Yun-Choi, H.S. et al., Arch. Pharmacol Res., 1997, 20, 91, (分離, sulfoxide)

§ N, N-Bis(4-hydroxybenzyl) hydroxylamine

[化学名・別名] 4,4'-[(Hydroxyimino) bis(methylene)] bisphenol (CAS 名). N,N-Bis

(4-hydroxyphenylmethyl) hydroxylamine. N,N-Dihydroxy-N-(4-hydroxyphenylmethyl) benzenemethanamine

[CAS No.] 245428-10-8

[化合物分類] アルカロイド化合物 (Miscellaneous acyclic alkaloid)

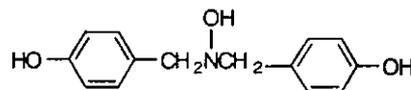
[構造式]

[分子式] $C_{14}H_{15}NO_3$

[分子量] 245.277

[正確な分子量] 245.105194

[基原] 次の植物から得られるアルカロイド: *Gastrodia elata*



[UV]: [neutral] λ_{max} 238 (log ϵ 4.4); 279 (log ϵ 3.5); 282 (log ϵ 3.4) (MeOH)

-----文献-----

Hao, X.Y. et al., Chin. Chem. Lett., 1999, 10, 467, (分離)

§ 2,4-Bis(4-hydroxybenzyl) phenol

[化学名・別名] 2,4-Bis[(4-hydroxyphenyl) methyl] phenol (CAS 名)

[CAS No.] 34826-64-7

[化合物分類] 単環芳香族 (Diphenylmethane), 単環芳香族 (Simple phenol)

[構造式]

[分子式] $C_{20}H_{18}O_3$

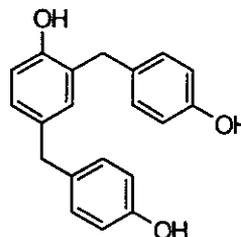
[分子量] 306.36

[正確な分子量] 306.125595

[基原] *Galeola faberi* の根茎と *Gastrodia elata* の塊茎

[性状] 淡黄色の針状結晶 (C_6H_6/Me_2CO)

[融点] Mp 153-155 °C (150-152 °C)



-----文献-----

Natesan, R. et al., Indian J. Chem., 1973, 11, 1007, (合成法)

Petric, R.A. et al., Br. Polym. J., 1986, 18, 171, (合成法)

Li, Y.M. et al., Planta Med., 1993, 59, 363, (分離, H-NMR, C13-NMR)

Li, Y.M. et al., Yaoxue Xuebao, 1993, 28, 766, (分離)

Noda, N. et al., Phytochemistry, 1995, 39, 1247

§ 4,4'-Dihydroxydiphenylmethane

[化学名・別名] 4,4'-Methylenebisphenol (CAS 名). 4-[(4-Hydroxyphenyl) methyl] phenol (CAS 名).

4,4'-Methylenediphenol (旧 CAS 名). Bis(4-hydroxyphenyl) methane

[CAS No.] 620-92-8

[関連 CAS No.] 53818-85-2, 110299-22-4

[その他の CAS No.] 1333-16-0, 87139-40-0

[化合物分類] 単環芳香族 (Simple phenol), 単環芳香族 (Diphenylmethane)

[構造式]

[分子式] $C_{13}H_{12}O_2$

[分子量] 200.237

[正確な分子量] 200.08373

[基原] 次の植物から分離: *Gastrodia elata*, *Galeola faberi*

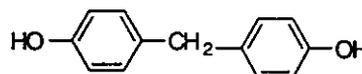
[性状] 葉状結晶 (H_2O)

[融点] Mp 162-163 °C

[PKa 値] pK_{a1} 7.55; pK_{a2} 10.8 (25 °C, H_2O)

[傷害・毒性] 50% 致死量 (LD_{50}) (ラット, 経口) 4950 mg/kg

[化学物質毒性データ総覧 (RTEC) 登録番号] SL9625000



-----文献-----

Elliger, C.A., Synth. Commun., 1985, 15, 1315, (合成法)

Petric, R.A. et al., Br. Polym. J., 1986, 18, 171, (合成法, C13-NMR)

Li, Y.M. et al., Yaoxue Xuebao, 1993, 28, 766, (分離)

Lewis, R.J., Sax's Dangerous Properties of Industrial Materials, 8th edn., Van Nostrand Reinhold, 1992, BK1250

RTECS (化学物質毒性データ)

健康障害に関するデータ

急性毒性に関するデータ

<<試験方法>> LD_{50} 試験 (50% 致死量試験).

曝露経路 : 経口投与.

被験動物 : げっ歯類-ラット.

投与量・期間 : 4950 mg/kg

・ 毒性影響 : 致死量以外に毒性影響に関する報告はない.

参照文献

AIHAAP American Industrial Hygiene Association Journal. (AIHA, 475 Wolf Ledges Pkwy., Akron,

OH 44311) V.19- 1958- [Vol.,頁,年(19-)]23,95,1962

米国に於ける状況

EPA TSCA Section 8(b) CHEMICAL INVENTORY

EPA TSCA Section 8(d) unpublished health/safety studies

EPA TSCA TEST SUBMISSION (TSCAT) DATA BASE, JANUARY 2001

§ **Glutathione; S-(4-Hydroxybenzyl)**

[化学名・別名] S-(4-Hydroxybenzyl) glutathione

[CAS No.] 129636-38-0

[化合物分類] アミノ酸とペプチド (Tripeptide)

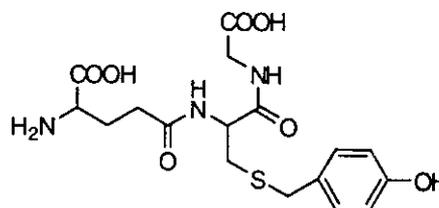
[構造式]

[分子式] $C_{17}H_{23}N_3O_7S$

[分子量] 413.451

[正確な分子量] 413.125672

[基原] *Gastrodia elata*



-----文献-----

Andersson, M. et al., *Phytochemistry*, 1995, 38, 835, (S-4-Hydroxybenzylglutathione)

§ **4-Hydroxybenzyl alcohol; 4-O-β-D-Glucopyranoside**

[化学名・別名] 4-(Hydroxymethyl) phenyl β-D-glucopyranoside (CAS 名). 4-β

-D-Glucopyranosyloxybenzyl alcohol. Gastrodin

[CAS No.] 62499-27-8

[化合物分類] 単環芳香族 (Simple benzyl alcohol)

[構造式]

[分子式] $C_{15}H_{18}O_7$

[分子量] 286.281

[正確な分子量] 286.105255

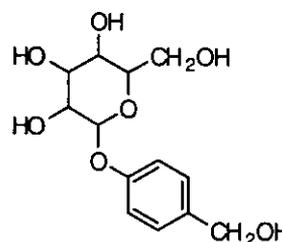
[基原] 次の植物から分離: *Gastrodia elata*, *Galeolae septentrionalis*

[用途] 抗痙攣, 抗高血圧, 催眠と鎮静作用を示す

[性状] 針状結晶 (MeOH/EtOAc)

[融点] Mp 156-157 °C

[比旋光度]: $[\alpha]_D^{25} -62.1$ (c, 0.31 in EtOH)



-----文献-----

C.Djerassi et al., *Dictionary of Natural Products*, Chapman, Hall, 2002

§ **4-[[4-(Methoxymethyl) phenoxy] methyl] phenol (CAS 名)**

[化学名・別名] 4-(4-Hydroxybenzyloxy) benzyl methyl ether

[CAS No.] 77182-71-9

[化合物分類] 単環芳香族 (Simple benzyl alcohol)

[構造式]

[分子式] $C_{15}H_{16}O_3$

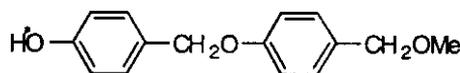
[分子量] 244.29

[正確な分子量] 244.109945

[基原] 次の植物から分離: *Gastrodia elata*

[性状] 針状結晶 (Et₂O/hexane)

[融点] Mp 120-123 °C



-----文献-----

Taguchi, H. et al., *Chem. Pharm. Bull.*, 1981, 29, 55

§ **4-[[4-[[4-(Methoxymethyl) phenoxy] methyl] phenoxy] methyl] phenol (CAS 名)**

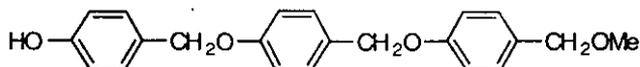
[化学名・別名] 4-[4-(4-Hydroxybenzyloxy) benzyloxy] benzyl methyl ether

[CAS No.] 210969-95-2

[化合物分類] 単環芳香族 (Miscellaneous aryl derivative)

[構造式]

[分子式] $C_{22}H_{22}O_4$



[分子量] 350.413
[正確な分子量] 350.15181
[基原] *Gastrodia elata* の塊茎

-----文献-----

Yun-Choi, H.S. et al., Arch. Pharmacol Res., 1998, 21, 357

§ Parishin

[化学名・別名] [[3-[[[4-(β-D-Glucopyranosyloxy) phenyl] methoxy] carbonyl]-3-hydroxy-1,5-dioxo-1,5-pentanediy] bis (oxymethylene-4,1-phenylene)] bis-β-D-glucopyranoside (CAS 名).

Tris (*p*-glucosyloxybenzyl) citrate

[CAS No.] 62499-28-9

[化合物分類] 脂肪族化合物 (Triacylglycerol)

[構造式]

[分子式] C₅H₆O₂₅

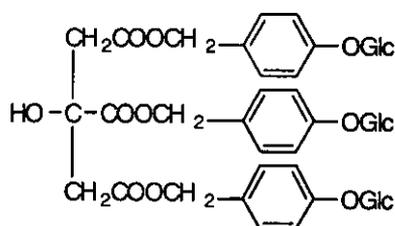
[分子量] 996.922

[正確な分子量] 996.311075

[基原] 次の植物から分離: *Gastrodia elata*, *Vanda parishii*

[性状] 無定型の塊

[比旋光度]: [α]_D -73.9 (c, 1 in MeOH)



-----文献-----

Dahmeacuten, J. et al., Phytochemistry, 1976, 15, 1986, (分離, IR, H-NMR)

Taguchi, H. et al., Chem. Pharm. Bull., 1981, 29, 55, (分離)

Lin, J.-H. et al., Phytochemistry, 1996, 42, 549, (Parishin B, isol, UV, IR, H-NMR, C13-NMR, Mas)

§ Stigmast-5-en-3-ol; (3β,24R)-form, 4-Hydroxybenzyl ether

[CAS No.] 210969-94-1

[化合物分類] ステロイド (Stigmastane steroid). (C₂₉).

[構造式]

[分子式] C₃₆H₅₆O₂

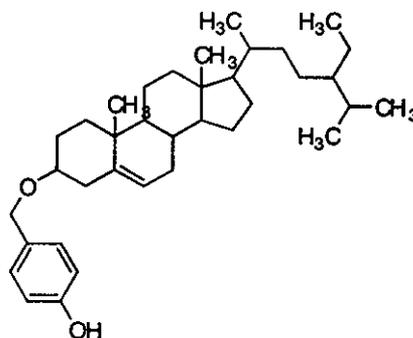
[分子量] 520.837

[正確な分子量] 520.42803

[基原] *Gastrodia elata*

[性状] 結晶 (MeOH)

[融点] Mp 189-192 °C



-----文献-----

Karrer, W. et al., Konstitution und Vorkommen der Organischen Pflanzenstoffe, 2nd edn., Birkhäuser Verlag, Basel, 1972, no. 2071, (生育)

Yun-Choi, H.S. et al., Arch. Pharmacol Res., 1998, 21, 357; CA, 129, 146830z, (4-hydroxybenzyl ether)

*****テンリョウチャ (Tenryocha) *****

§ § バラ科 (*Rubus suavissimus* S. Lee) の茎葉。

§ 13,16-Dihydroxy-19-kauranoic acid; (ent-13β,16β OH)-form, 13-O-β-D-Glucopyranoside

[化学名・別名] Suavioside F

[化合物分類]テルペノイド (Kaurane diterpenoid)

[構造式]

[分子式] $C_{36}H_{44}O_9$

[分子量] 498.612

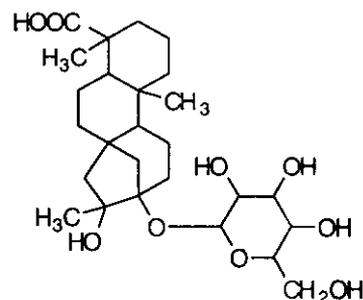
[正確な分子量] 498.282885

[基原] *Rubus suavissimus*

[性状] 無定型の粉末

[比旋光度]: $[\alpha]_D^{19} -51.5$ (c, 0.79 in MeOH)

[その他のデータ] 苦味を呈する



-----文献-----

Ohtani, K. et al., *Phytochemistry*, 1992, 31, 1553, (分離, H-NMR, C13-NMR)

§ 13,16-Dihydroxy-19-kauranoic acid; (*ent*-13 β , 16 β OH)-form, 13-O- β -D-Glucopyranoside, β -D-glucopyranosyl ester

[化学名・別名] Suavioside G

[化合物分類]テルペノイド (Kaurane diterpenoid)

[構造式]

[分子式] $C_{37}H_{50}O_{14}$

[分子量] 660.754

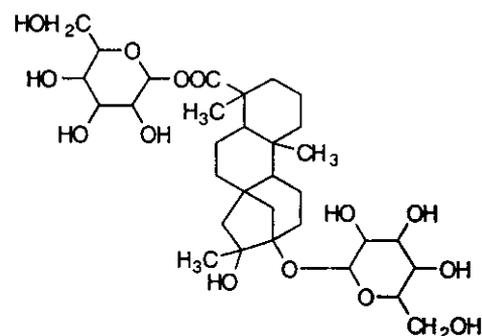
[正確な分子量] 660.33571

[基原] *Rubus suavissimus*

[性状] 無定型の粉末

[比旋光度]: $[\alpha]_D^{19} -56.9$ (c, 0.84 in MeOH)

[その他のデータ] 甘味を呈する



-----文献-----

Ohtani, K. et al., *Phytochemistry*, 1992, 31, 1553, (分離, H-NMR, C13-NMR)

§ 9,13-Dihydroxy-16-kauran-19-oic acid; (*ent*-9 α , 13 β)-form, 13-O- β -D-Glucopyranoside, β -D-glucopyranosyl ester

[化学名・別名] Suavioside B

[化合物分類]テルペノイド (Kaurane diterpenoid)

[構造式]

[分子式] $C_{37}H_{50}O_{14}$

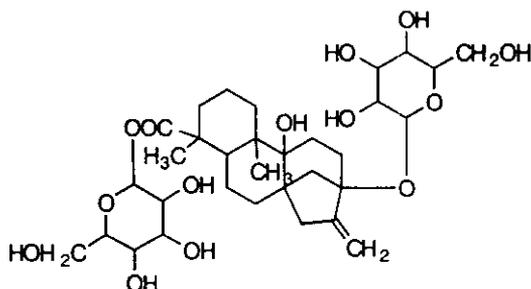
[分子量] 658.739

[正確な分子量] 658.32006

[基原] *Rubus suavissimus*

[性状] 無定型の粉末

[比旋光度]: $[\alpha]_D^{25} -36.9$ (c, 1.08 in MeOH)



-----文献-----

Ohtani, K. et al., *Phytochemistry*, 1992, 31, 1553, (分離, H-NMR, C13-NMR)

§ 13,17-Dihydroxy-15-kauran-19-oic acid; (*ent*-13 β)-form, 13-O- β -D-Glucopyranoside, β -D-glucopyranosyl ester

[化学名・別名] Suavioside J

[化合物分類]テルペノイド (Kaurane diterpenoid)

[構造式]

[分子式] $C_{37}H_{50}O_{14}$

[分子量] 658.739

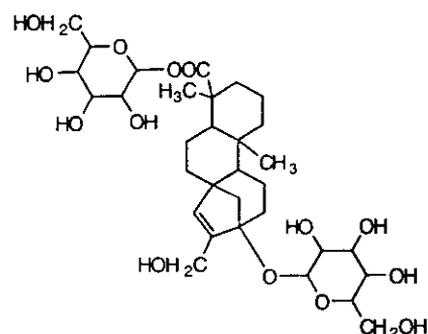
[正確な分子量] 658.32006

[基原] *Rubus suavissimus*

[性状] 無定型の粉末

[比旋光度]: $[\alpha]_D^{19} -50.7$ (c, 0.67 in MeOH)

[その他のデータ] 甘味を呈する



-----文献-----

Ohtani, K. et al., *Phytochemistry*, 1992, 31, 1553, (分離, H-NMR, C13-NMR)

§ 13,17-Dihydroxy-15-kauren-19-oic acid; (*ent*-13 β)-form, 17-Aldehyde, 13-*O*- β -D-glucopyranoside, β -D-glucopyranosyl ester

[化学名・別名] Suavioside H

[化合物分類] テルペノイド (Kaurane diterpenoid)

[構造式]

[分子式] $C_{32}H_{48}O_{14}$

[分子量] 656.723

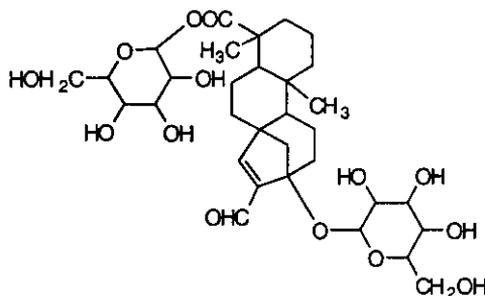
[正確な分子量] 656.30441

[基原] *Rubus suavissimus*

[性状] 無定型の粉末

[比旋光度]: $[\alpha]_D^{25} -36.7$ (c, 0.81 in MeOH)

[その他のデータ] 甘味を呈する



-----文献-----

Ohtani, K. et al., *Phytochemistry*, 1992, 31, 1553, (分離, H-NMR, C13-NMR)

§ 13-Hydroxy-16-kauren-19-oic acid; *ent*-form, 13-*O*- β -D-Glucopyranoside, β -D-glucopyranosyl ester

[化学名・別名] Rubusoside

[CAS No.] 64849-39-4

[化合物分類] テルペノイド (Kaurane diterpenoid)

[構造式]

[分子式] $C_{32}H_{50}O_{13}$

[分子量] 642.739

[正確な分子量] 642.325145

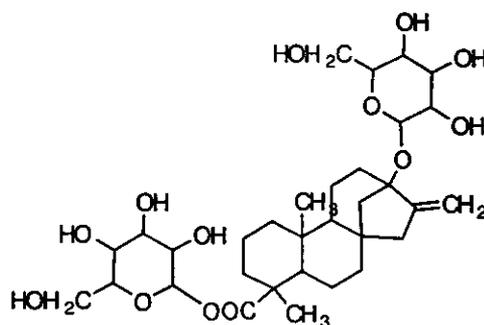
[基原] 次の植物から分離: *Rubus chingii* の葉, *Rubus suavissimus*

[性状] プリズム結晶 (MeOH 溶液)

[融点] Mp 178-181 °C

[比旋光度]: $[\alpha]_D^{25} -40.3$ (c, 0.8 in MeOH)

[その他のデータ] 甘味を呈する



-----文献-----

Tanaka, T. et al., *Agric. Biol. Chem.*, 1981, 45, 2165, (Rubusoside)

DuBois, G.E. et al., *J. Med. Chem.*, 1981, 24, 1269, (用途)

Crammer, B. et al., *Chem. Br.*, 1986, 22, 915, (レビュー)

§ 13-Hydroxy-16-kauren-19-oic acid; *ent*-form, 13-*O*- β -D-Glucopyranoside

[化学名・別名] 13-*O*-Glucosylsteviol

[化合物分類] テルペノイド (Kaurane diterpenoid)

[構造式]

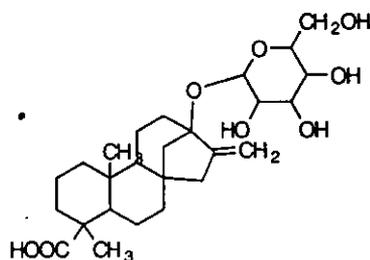
[分子式] $C_{26}H_{40}O_8$

[分子量] 480.597

[正確な分子量] 480.27232

[基原] *Rubus suavissimus*

[その他のデータ] 甘味を呈する



-----文献-----

Kohda, H. et al., *Phytochemistry*, 1976, 15, 981, (Stevioside, Rebaudioside A and B, Steviolhioside)

Sakamoto, I. et al., *Chem. Pharm. Bull.*, 1977, 25, 3437, (Rebaudioside)

Hanson, J.R. et al., *Nat. Prod. Rep.*, 1993, 10, 301, (レビュー, Stevioside)

§ 13-Hydroxy-16-kauren-19-oic acid; *ent*-form, 13-*O*-[6-(4-Hydroxycinnamoyl)]- β

-D-glucopyranoside], β -D-glucopyranosyl ester

[化学名・別名] Suavioside C₁

[CAS No.] 142543-23-5

[化合物分類] テルペノイド (Kaurane diterpenoid)

[構造式]

[分子式] C₄₁H₅₆O₁₅

[分子量] 788.884

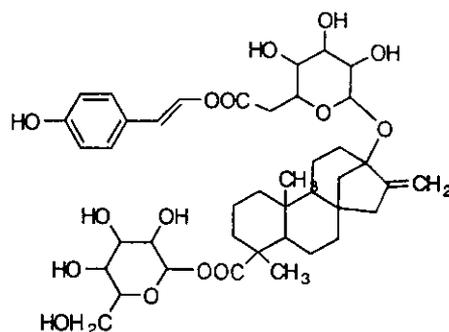
[正確な分子量] 788.361925

[基原] *Rubus suavissimus*

[性状] 無定形の粉末

[比旋光度]: $[\alpha]_D^{25}$ -47.4 (c, 0.39 in MeOH)

[その他のデータ] 苦味を呈する



-----文献-----

Ohtani, K. et al., *Phytochemistry*, 1992, 31, 1553, (Suavioside)

Hanson, J.R. et al., *Nat. Prod. Rep.*, 1993, 10, 301, (レビユー, Stevioside)

§ 13-Hydroxy-16-kauran-19-oic acid; *ent*-form, 13-O-(6-Caffeoyl- β -D-glucopyranoside), β -D-glucopyranosyl ester

[化学名・別名] Suavioside D₁

[CAS No.] 142543-24-6

[化合物分類] テルペノイド (Kaurane diterpenoid)

[構造式]

[分子式] C₄₁H₅₆O₁₆

[分子量] 804.884

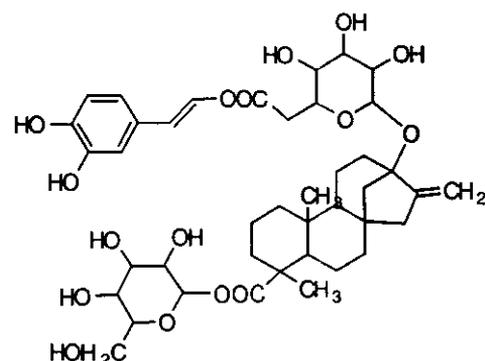
[正確な分子量] 804.35684

[基原] *Rubus suavissimus*

[性状] 無定形の粉末

[比旋光度]: $[\alpha]_D^{25}$ -46.5 (c, 1.03 in MeOH)

[その他のデータ] 無味



-----文献-----

Ohtani, K. et al., *Phytochemistry*, 1992, 31, 1553, (Suavioside)

Hanson, J.R. et al., *Nat. Prod. Rep.*, 1993, 10, 301, (レビユー, Stevioside)

§ 13-Hydroxy-16-kauran-19-oic acid; *ent*-form, 13-O- β -D-Glucopyranoside, (6-caffeoyl- β -D-glucopyranosyl) ester

[化学名・別名] Suavioside D₂

[CAS No.] 142543-25-7

[化合物分類] テルペノイド (Kaurane diterpenoid)

[構造式]

[分子式] C₄₁H₅₆O₁₆

[分子量] 804.884

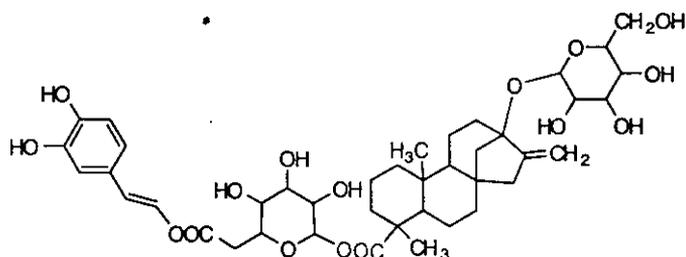
[正確な分子量] 804.35684

[基原] *Rubus suavissimus*

[性状] 無定形の粉末

[比旋光度]: $[\alpha]_D^{25}$ -43.4 (c, 0.5 in MeOH)

[その他のデータ] 苦味を呈する



-----文献-----

Ohtani, K. et al., *Phytochemistry*, 1992, 31, 1553, (Suavioside)

Hanson, J.R. et al., *Nat. Prod. Rep.*, 1993, 10, 301, (レビユー, Stevioside)

§ 3,16,17-Kauranetriol; (*ent*-3 β , 16 β OH)-form, 17-O- β -D-Glucopyranoside

[化学名・別名] Suavioside A

[CAS No.] 133740-37-1

[化合物分類] テルペノイド (Kaurane diterpenoid)

[構造式]

[分子式] $C_{26}H_{44}O_8$

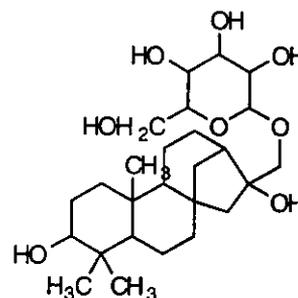
[分子量] 484.629

[正確な分子量] 484.30362

[基原] *Rubus suavissimus*

[性状] 粉末

[比旋光度]: $[\alpha]_D^{25} +47.21$ (c, 0.14 in Py)



-----文献-----

Ohtani, K. et al., *Phytochemistry*, 1992, 31, 1553, (Suavioside)

Ohtani, K. et al., *Phytochemistry*, 1992, 31, 1553, (Suavioside E, Paniculose IV)

Hanson, J.R. et al., *Tetrahedron*, 1970, 26, 4839, (分離, 合成法)

Ellmauer, E. et al., *J. Nat. Prod.*, 1987, 50, 221, (分離)

Bandara, B.M.R. et al., *Phytochemistry*, 1988, 27, 225, (分離)

Hirono, S. et al., *Chem. Pharm. Bull.*, 1990, 38, 1743, (分離, H-NMR, C13-NMR, 結晶構造)

Ding, Y.-L. et al., *Phytochemistry*, 1991, 30, 2413, (3-ketone, 分離)

Gustafson, K.R. et al., *Tetrahedron*, 1991, 47, 4547, (3-ketone, 分離)

§ 3,16,17-Kauranetriol; (ent-3 β,16 β OH)-form, 3-Ketone,17-β-D-glucopyranoside

[化学名・別名] Sugereoside

[CAS No.] 41743-57-1

[化合物分類] テルペノイド (Kaurane diterpenoid)

[構造式]

[分子式] $C_{26}H_{42}O_8$

[分子量] 482.613

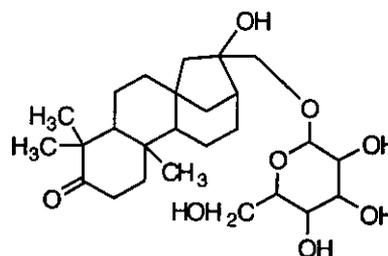
[正確な分子量] 482.28797

[基原] 次の植物から分離: *Ilex sugerokii*, *Rubus suavissimus*

[性状] 針状結晶 (MeOH)

[融点] Mp 209-211 °C

[比旋光度]: $[\alpha]_D^{25} -55.6$ (c, 0.36 in Py)



-----文献-----

Ichikawa, N. et al., *Nippon Kagaku Kaishi*, 1973, 785; *CA*, 79, 19023n, (Sugereoside)

§ 16,17,19-Kauranetriol; (ent-16 β OH)-form, 19-Carboxylic acid, β-D-glucopyranosyl ester

[化学名・別名] Paniculose IV. Crispioside B

[CAS No.] 65562-09-6

[化合物分類] テルペノイド (Kaurane diterpenoid)

[構造式]

[分子式] $C_{26}H_{42}O_9$

[分子量] 498.612

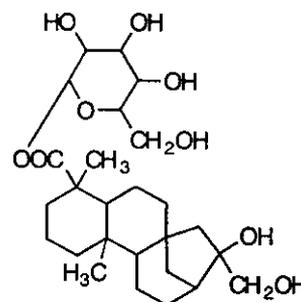
[正確な分子量] 498.282885

[基原] *Stevia paniculata*, *Stevia ovata*, *Francoeuria crispa*, *Rubus suavissimus*

[性状] 結晶 (MeOH)

[融点] Mp 149-153 °C

[比旋光度]: $[\alpha]_D^{18.5} +65.6$ (c, 0.25 in MeOH)

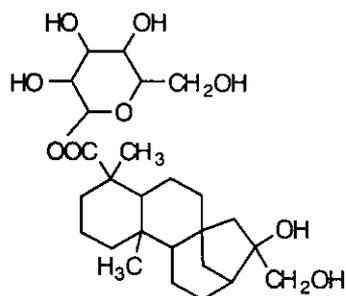


-----文献-----

Ohtani, K. et al., *Phytochemistry*, 1992, 31, 1553, (Suavioside E, Paniculose IV)

§ 16,17,19-Kauranetriol; (ent-16 α OH)-form, 19-Carboxylic acid, 19-β-D-glucopyranosyl ester

[化学名・別名] Suavioside E
 [CAS No.] 142631-50-3
 [化合物分類] テルペノイド (Kaurane diterpenoid)
 [構造式]
 [分子式] $C_{26}H_{42}O_9$
 [分子量] 498.612
 [正確な分子量] 498.282885
 [基原] *Aster tongolensis*, *Rubus suavissimus*
 [性状] 無定型の粉末
 [比旋光度]: $[\alpha]_D^{25} -1.84$ (c, 0.38 in MeOH)

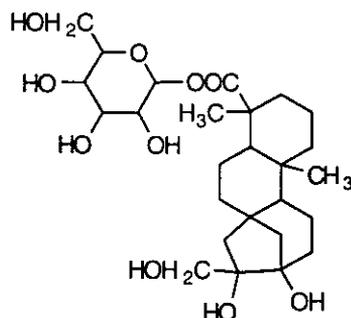


-----文献-----

Ohtani, K. et al., *Phytochemistry*, 1992, 31, 1553, (Suavioside E, Paniculoside IV)

§ 13,16,17-Trihydroxy-19-kauranoic acid; (*ent*-13 β ,16 β OH)-form, β -D-Glucopyranosyl ester

[化学名・別名] Suavioside I
 [化合物分類] テルペノイド (Kaurane diterpenoid)
 [構造式]
 [分子式] $C_{26}H_{42}O_{10}$
 [分子量] 514.612
 [正確な分子量] 514.2778
 [基原] *Rubus suavissimus*
 [性状] 無定型の粉末
 [比旋光度]: $[\alpha]_D^{19} -37.5$ (c, 0.94 in MeOH)
 [その他のデータ] 甘味を呈する



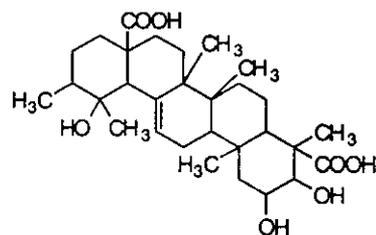
-----文献-----

Ohtani, K. et al., *Phytochemistry*, 1992, 31, 1553, (分離, H-NMR, C13-NMR)

§ 2,3,19-Trihydroxy-12-ursene-23,28-dioic acid; (2 α ,3 β ,19 α)-form

[化合物分類] テルペノイド (Ursane triterpenoid)
 [構造式]

[基原] *Rubus coreanus*, *Rubus suavissimus*, *Geum japonicum*
 [性状] 粉末
 [比旋光度]: $[\alpha]_D^{24} +29.5$ (c, 0.45 in MeOH)

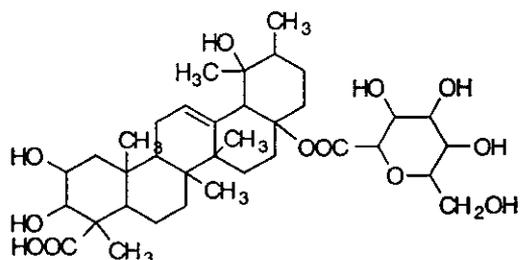


-----文献-----

Gao, F. et al., *Chem. Pharm. Bull.*, 1985, 33, 37
 Abe, F. et al., *Chem. Pharm. Bull.*, 1987, 35, 1748, (Suavissimoside F1)
 Ohtani, K. et al., *Phytochemistry*, 1990, 29, 3275, (分離, H-NMR, C13-NMR)
 Wang, B.-G. et al., *Phytochemistry*, 1998, 49, 185, (*Rubus pungens* ester)
 Lien, T.P. et al., *Phytochemistry*, 1999, 50, 463, (2-Acetylsuavissimoside F1)

§ 2,3,19-Trihydroxy-12-ursene-23,28-dioic acid; (2 α ,3 β ,19 α)-form, 28- β -D-Glucopyranosyl ester

[化学名・別名] Suavissimoside F1. Suavissimoside R1
 [CAS No.] 95645-51-5
 [化合物分類] テルペノイド (Ursane triterpenoid)
 [構造式]
 [分子式] $C_{36}H_{56}O_{12}$
 [分子量] 680.831
 [正確な分子量] 680.37718
 [基原] 次の植物の根から分離: *Rubus suavissimus*, *Trachelospermum asiaticum*
 [性状] 針状結晶・二水和物 (MeOH)
 [融点] Mp 255 °C で分解
 [比旋光度]: $[\alpha]_D^{24} +19.1$ (c, 1.2 in MeOH)



-----文献-----

Abe, F. et al., Chem. Pharm. Bull., 1987, 35, 1748, (Suavissimoside F1)
Lien, T.P. et al., Phytochemistry, 1999, 50, 463, (2-Acetylsuavissimoside F1)

*****トウガラシ (Capsicum) *****

§ § ナス科トウガラシ (*Capsicum annuum* L.) の果実または茎葉。

§ Acetamide; *N*-(13-Methyltetradecyl)

[化学名・別名] Capsiamide

[CAS No.] 64317-66-4

[化合物分類] アルカロイド化合物 (Miscellaneous simple amide alkaloid)

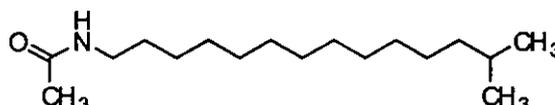
[構造式]

[分子式] $C_{17}H_{35}NO$

[分子量] 269.47

[正確な分子量] 269.271864

[基原] *Capsicum annuum*



-----文献-----

IARC Monog., 1974, 7, 197; Suppl. 7, 389, (レビュー, 毒性)
Takahashi, M. et al., Yakugaku Zasshi, 1977, 97, 758, (Capsiamide)
Kerridge, D.H., Chem. Soc. Rev., 1988, 17, 181, (レビュー)

§ 4-(2-Aminoethyl) phenol; *N*-(4-Hydroxy-3-methoxy-*Z*-cinnamoyl)

[化学名・別名] *N*-*cis*-Feruloyltyramine

[CAS No.] 80510-09-4

[化合物分類] アルカロイド化合物 (Cinnamic acid amide), アルカロイド化合物 (Simple tyramine alkaloid)

[構造式]

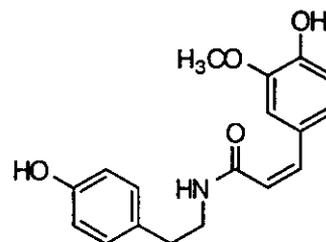
[分子式] $C_{18}H_{19}NO_4$

[分子量] 313.352

[正確な分子量] 313.131409

[基原] 次の植物から得られるアルカロイド: *Aristolochia kankauensis*, *Capsicum annuum*, *Tinospora tuberculata*

[性状] 青白い黄色のオイル



-----文献-----

Smith, T.A., Phytochemistry, 1977, 16, 9, (レビュー, 生育, 誘導體)
Yoshihara, T. et al., Agric. Biol. Chem., 1981, 45, 2593-2598, (*N*-Feruloyltyramine)
Fukuda, N. et al., Chem. Pharm. Bull., 1983, 31, 156-161, (*N*-Feruloyltyramine)

§ Antheraxanthin; (3*S*,3'*R*,5*S*,6*R*,9*E*)-form

[化学名・別名] Antheraxanthin A

[CAS No.] 25494-44-4

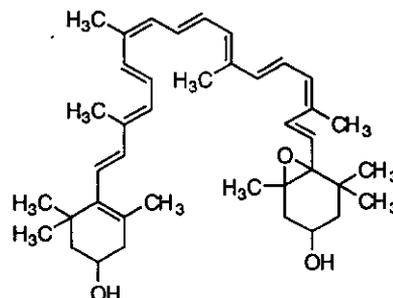
[化合物分類] テルペノイド (Tetraterpenoid)

[構造式]

[基原] *Lilium* spp., *Euonymus europaeus*, *Capsicum annuum*, その他

[性状] 結晶 (MeOH)

[融点] Mp 197 °C



-----文献-----

Karrer, W. et al., Konstitution und Vorkommen der Organischen Pflanzenstoffe, 2nd edn., Birkhäuser Verlag, Basel, 1972, no. 1841, (生育)
Straub, O. et al., Key to Carotenoids, 2nd edn., Birkhauser Verlag, Basel and Boston, 1987, 231, (成書)
Tsushima, M. et al., J. Nat. Prod., 2000, 63, 960, (Antheraxanthin B)

§ Capsanthin

[化学名・別名] 3,3'-Dihydroxy- β , κ -caroten-6'-one

[CAS No.] 465-42-9

[関連 CAS No.] 87801-05-6

[化合物分類] テルペノイド
(Tetraterpenoid)

[構造式]

[分子式] $C_{40}H_{56}O_3$

[分子量] 584.881

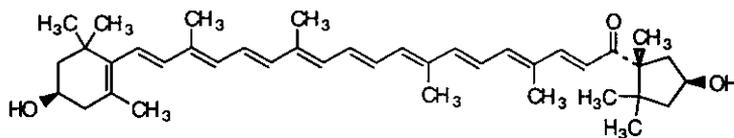
[正確な分子量] 584.422945

[基原] パプリカ *Capsicum annuum* の果実。また, *Encephalartos longifolius*, *Tecoma radicans*, アスパラガス (*Asparagus officinalis*), *Lilium* spp., *Berberis* spp.からも分離される

[性状] 赤色の結晶 (petrol)

[融点] Mp 175-176 °C

[比旋光度]: $[\alpha]_{D_{25}}$ -70 (CHCl₃)



-----文献-----

De La Mar, R.R. et al., J. Food Sci., 1969, 34, 287, (Ketocapsanthin)

Bennet, R.D. et al., Phytochemistry, 1970, 9, 807, (生合成)

Neamtu, G. et al., CA, 1979, 93, 41684q, (生育, Capsanthone)

Rüttimann, A. et al., Helv. Chim. Acta, 1983, 66, 1939, (合成法, UV, IR, H-NMR, Mas)

Bowden, R.D. et al., J.C.S. Perkin 1, 1983, 1465, (絶対構造, 合成法)

§ Capsanthin; 5 α ,6 α -Epoxide

[化学名・別名] Capsanthin 5,6-epoxide. 5,6-Epoxy-5,6-dihydro-3,3'-dihydroxy- β , κ -caroten-6'-one.

Capsanthin monoepoxide

[CAS No.] 29486-21-3

[化合物分類] テルペノイド (Tetraterpenoid)

[構造式]

[分子式] $C_{40}H_{56}O_4$

[分子量] 600.88

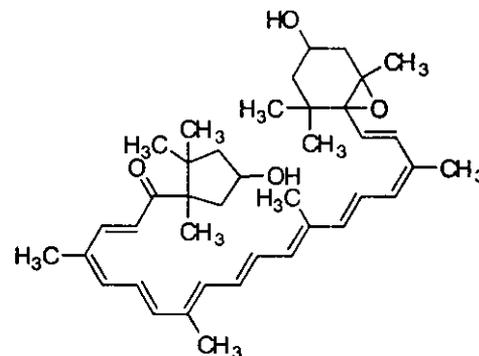
[正確な分子量] 600.41786

[基原] 赤トウガラシ: *Capsicum annuum*

[性状] 赤色の針状結晶

[融点] Mp 177-178 °C

[比旋光度]: $[\alpha]_D +9.4$ (C₆H₆)



-----文献-----

Parkes, K.E.B. et al., Tet. Lett., 1986, 27, 2535, (分離, epoxide)

§ Capsanthin; 3-Deoxy

[化学名・別名] Cryptocapsin. 3'-Hydroxy- β , κ -caroten-6'-one. Kryptocapsin

[CAS No.] 7044-42-0

[化合物分類] テルペノイド (Tetraterpenoid)

[構造式]

[分子式] $C_{40}H_{56}O_2$

[分子量] 568.881

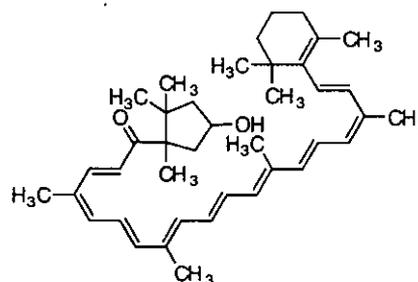
[正確な分子量] 568.42803

[基原] パプリカ (*Capsicum annuum*)

[性状] 紫色の金属状結晶 (EtOAc)

[融点] Mp 172-174 °C (160-161 °C)

[UV]: [neutral] λ_{max} 486 (ϵ 112000); 520 (ϵ 87000) (溶媒の報告はない)

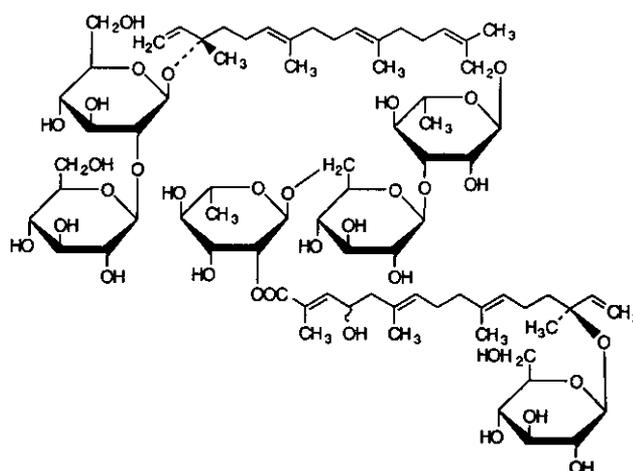


-----文献-----

De La Mar, R.R. et al., J. Food Sci., 1969, 34, 287, (Ketocapsanthin)

§ Capsianoside A

[化学名・別名] Capsianside A
 [CAS No.] 116107-40-5
 [化合物分類] テルペノイド (Labdane diterpenoid)
 [構造式]



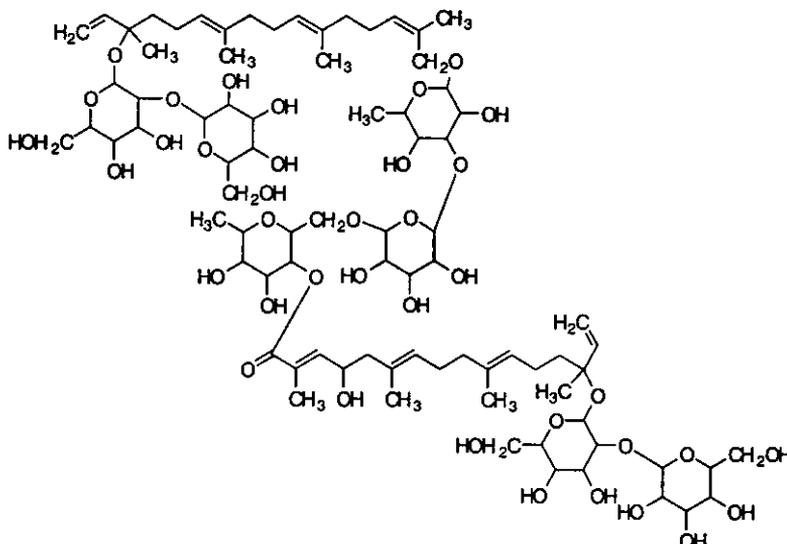
[分子式] $C_{76}H_{124}O_{33}$
 [分子量] 1565.796
 [正確な分子量] 1564.802495
 [一般的性質] 構造式は 1990 年に改正された
 [基原] *Capsicum annuum* の果実
 [性状] 無定型の粉末
 [比旋光度]: $[\alpha]_D^{25} -25.1$ (MeOH)

-----文献-----

Izumitani, Y. et al., Chem. Pharm. Bull., 1990, 38, 1299, (分離, IR, H-NMR, C13-NMR, Mas)

§ Capsianoside A; 2''-O-β-D-Glucopyranoside

[化学名・別名] Capsianoside C. Capsianside C
 [CAS No.] 121940-51-0
 [化合物分類] テルペノイド
 (Labdane diterpenoid)
 [構造式]



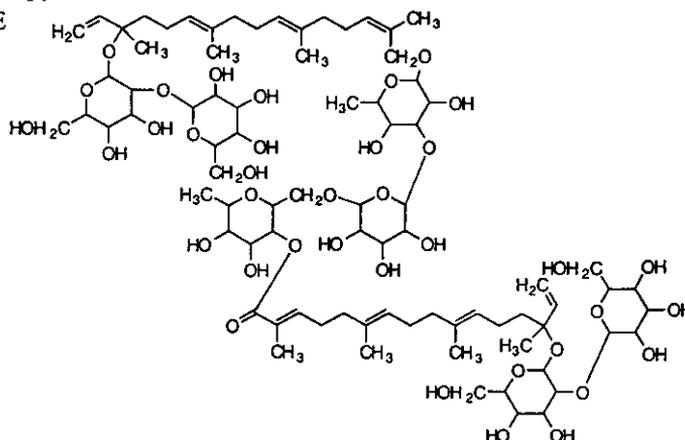
[分子式] $C_{82}H_{134}O_{38}$
 [分子量] 1727.938
 [正確な分子量] 1726.85532
 [基原] *Capsicum annuum*
 [性状] 粉末
 [比旋光度]: $[\alpha]_D^{20} -21$ (c, 0.5 in MeOH)

-----文献-----

Izumitani, Y. et al., Chem. Pharm. Bull., 1990, 38, 1299, (分離, IR, H-NMR, C13-NMR, Mas)

§ Capsianoside A; 13-Deoxy, 2''-O-β-D-glucopyranoside

[化学名・別名] Capsianoside E. Capsianside E
 [CAS No.] 121924-09-2
 [化合物分類] テルペノイド
 (Labdane diterpenoid)
 [構造式]



[分子式] $C_{82}H_{134}O_{37}$
 [分子量] 1711.938
 [正確な分子量] 1710.860405
 [基原] *Capsicum annuum*
 [性状] 粉末
 [比旋光度]: $[\alpha]_D^{19} -21.9$ (c, 1 in MeOH)

-----文献-----

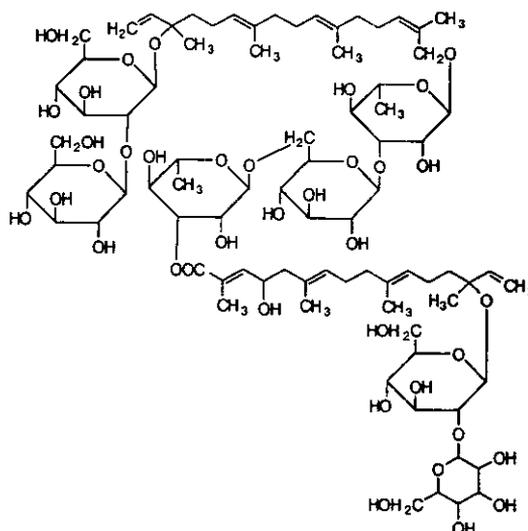
Izumitani, Y. et al., Chem. Pharm. Bull., 1990, 38, 1299, (分離, IR, H-NMR, C13-NMR, Mas)

§ Capsianoside B

[化学名・別名] Capsianside B

[CAS No.] 121924-07-0

[構造式]



[分子式] $C_{76}H_{124}O_{33}$

[分子量] 1565.796

[正確な分子量] 1564.802495

[基原] *Capsicum annuum* の果実

[性状] 粉末

[比旋光度]: $[\alpha]_D^{20} -18$ (c, 0.7 in MeOH)

-----文献-----

Izumitani, Y. et al., Chem. Pharm. Bull., 1990, 38, 1299, (分離, IR, H-NMR, C13-NMR, Mas)

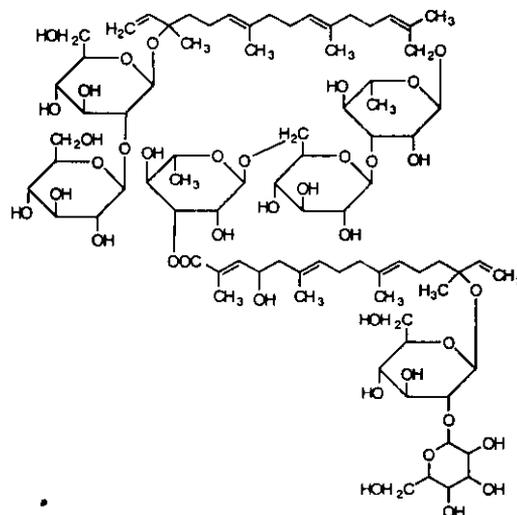
§ Capsianoside B; 2''-O-β-D-Glucopyranosyl

[化学名・別名] Capsianoside D. Capsianside D

[CAS No.] 121924-08-1

[化合物分類] テルペノイド (Labdane diterpenoid)

[構造式]



[分子式] $C_{82}H_{134}O_{38}$

[分子量] 1727.938

[正確な分子量] 1726.85532

[基原] *Capsicum annuum*

[性状] 粉末

[比旋光度]: $[\alpha]_D^{20} -19.9$ (c, 0.7 in MeOH)

-----文献-----

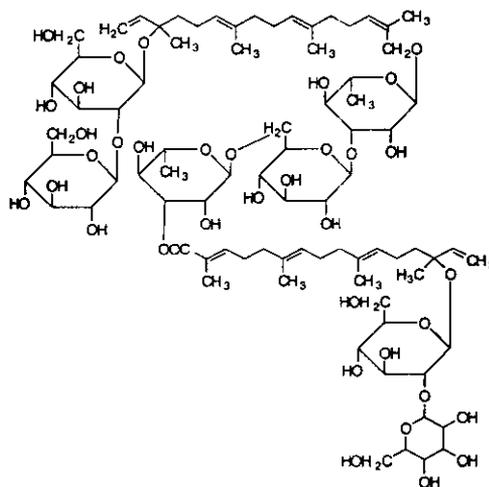
Izumitani, Y. et al., Chem. Pharm. Bull., 1990, 38, 1299, (分離, IR, H-NMR, C13-NMR, Mas)

§ Capsianoside B; 13-Deoxy, 2''-O-β-D-glucopyranosyl

[化学名・別名] Capsianoside F. Capsianside F

[化合物分類] テルペノイド (Labdane diterpenoid)

[構造式]



[分子式] $C_{82}H_{134}O_{37}$

[分子量] 1711.938

[正確な分子量] 1710.860405

[基原] *Capsicum annuum*

[性状] オイル

[比旋光度]: $[\alpha]_D^{19} -22.7$ (c, 0.6 in MeOH)