

1 Table S1 Terpenoids from *G. biloba*

No.	Compounds	Formula	MW	Source	Content (mg/g)	Ref.
<i>Diterpenes</i>						
1	Ginkgolide A	C ₂₀ H ₂₄ O ₉	408	L & R-B & R & E-P & Plu & Em & En-P & M-S & T-B & S-Br & Fl & S-B & St & R	0.1-5.9 ^L ; 0.031-0.093 ^{E-P} ; 0.32- 0.53 ^{Plu} ; 0.051-0.31 ^{Em} ; 0.11-0.14 ^{En-P} ; 0.044-0.12 ^{M-S} ; 0.18 ^{T-B} ; 0.13 ^{S-Br} ; 0.19 ^{Fl} ; 0.13 ^R ; 0.13 ^{R-B} ; 0.13 ^{S-B} ; 0.083-0.48 St ; 0.80 ^R	1-11
2	Ginkgolide B	C ₂₀ H ₂₄ O ₁₀	424	L & R-B & Fl & R & B-B & E-P & Plu & Em & En-P & M-S & T- B & S-Br & Fl & S-B & St & R	0.1-6.2 ^L ; 0.017-2.8 ^{E-P} ; 0.52-0.65 ^{Plu} ; 0.20-0.60 ^{Em} ; 0.083-0.17 ^{En-P} ; 0.023-0.045 ^{M-S} ; 0.09 ^{T-B} ; 0.06 ^{S-Br} ; 0.08 ^{Fl} ; 0.05 ^R ; 0.05 ^{R-B} ; 0.05 ^{S-B} ; 0.16-0.42 St ; 0.62 ^R	1-6,8-13
3	Ginkgolide C	C ₂₀ H ₂₄ O ₁₁	440	L & R-B & Fl & R & B-B & E-P & Plu & Em & En-P & M-S & T- B & S-Br & Fl & S-B	0.30-5.0 ^L ; 0.12-1.3 ^{E-P} ; 1.0-1.4 ^{Plu} ; 0.60-0.71 ^{Em} ; 0.35-0.64 ^{En-P} ; 0.15- 0.38 ^{M-S} ; 0.09 ^{T-B} ; 0.07 ^{S-Br} ; 0.08 ^{Fl} ; 0.05 ^R ; 0.05 ^{R-B} ; 0.05 ^{S-B}	1-10,12,13
4	Ginkgolide M	C ₂₀ H ₂₄ O ₁₀	424	L & R-B	-	1,14
5	Ginkgolide J	C ₂₀ H ₂₄ O ₁₀	424	L & E-P & T-B & S-Br & Fl & S- B & St & R	0.1-2.3 ^L ; 0.037-0.094 ^{E-P} ; 0.03 ^{T-B} ; 0.01 ^{S-Br} ; 0.02 ^{Fl} ; 0.02 ^R ; 0.02 ^{R-B} ; 0.02 ^{S-B} ; 0.089-0.090 St ; 0.18 ^R	8,9,11,15
6	Ginkgolide P	C ₂₀ H ₂₄ O ₁₀	424	L	-	16
7	Ginkgolide Q	C ₂₀ H ₂₄ O ₁₁	440	L	-	16
8	Ginkgolide K	C ₂₀ H ₂₂ O ₉	406	L	-	17
9	Ginkgolide L	C ₂₀ H ₂₂ O ₈	390	L	-	18

No.	Compounds	Formula	MW	Source	Content (mg/g)	Ref.
10	Ginkgolide N	C ₂₀ H ₂₂ O ₁₁	422	L	-	19
<i>Sesquiterpenes</i>						
11	Bilobalide	C ₁₅ H ₁₈ O ₈	326	L & R & R-B & B-B & E-P & Plu & En-P & M-S & T-B & S-Br & Fl & St	0.28-3.8 ^L ; 0.0026-0.039 ^{E-P} ; 0.027- 0.038 ^{Plu} ; 0.0017-0.016 ^{En-P} ; 0.0021- 0.0036 ^{M-S} ; 0.22 ^{T-B} ; 0.16 ^{S-Br} ; 0.27 ^{Fl} ; 0.02 ^R ; 0.02 ^{R-B} ; 0.02 ^{S-B} ; 0.22- 1.23 St ; 1.36 ^R	2,4,5,8- 11,13,20
12	BB isomer	C ₁₈ H ₂₀ O ₄	300	L	-	21
13	Bilobanol	C ₁₆ H ₂₂ O ₆	310	R	-	4
14	Bilobanone	C ₁₅ H ₂₀ O ₂	232	H-W	-	22,23
15	γ-Eudesmol	C ₁₅ H ₂₆ O	222	H-W	-	24
16	β-Eudesmol	C ₁₅ H ₂₆ O	222	H-W	-	24
17	Elemol	C ₁₅ H ₂₆ O	222	H-W	-	24
18	<i>trans</i> -10,11-Dihydro-atlantone	C ₁₅ H ₂₄ O	220	H-W	-	24
19	<i>cis</i> -10,11-Dihydro-atlantone	C ₁₅ H ₂₄ O	220	H-W	-	24
20	<i>trans</i> -10,11-Dihydro-6-oxo-atlantone	C ₁₅ H ₂₂ O ₂	234	H-W	-	24
21	<i>cis</i> -Atlantone	C ₁₅ H ₂₂ O	218	H-W	-	24
22	<i>trans</i> -Atlantone	C ₁₅ H ₂₂ O	218	H-W	-	24
23	Wilsonol A	C ₁₃ H ₂₄ O ₄	244	L	-	25
24	Alatoside E	C ₁₉ H ₃₄ O ₇	374	L	-	25

No.	Compounds	Formula	MW	Source	Content (mg/g)	Ref.
25	Icariside B6	C ₁₉ H ₃₂ O ₇	372	L	-	25
<i>Triterpenoids</i>						
26	Ursolic acid	C ₃₀ H ₄₈ O ₃	456	S	-	6

2 B-B: Branch bark, EM: Embryoid, En-P: Endopleura, E-P: Exopleura, Fl: Flower, Fr: Fruit, H-W: Heart wood, L: Leave, M-S: Mesosperm, Plu: Plumule, R: Root,

3 R-B: Root bark, S: Seed, S-Br: Side branch, St: stem, T-B: Terminal bud, MW: Molecular weight

4 [Table S2](#) Flavonoids from *G. biloba*

No.	Compounds	Formula	MW	Source	Content (mg/g)	Ref.
<i>Flavonol and their glycosides</i>						
27	Quercetin	C ₁₅ H ₁₀ O ₇	302	L & E-P & Plu & Em & En-P & M-S & St & R	0.0010-0.029 ^L ; 0.00006- 0.0011 ^{E-P} ; 0.00075- 0.00078 ^{Plu} ; 0-0.00055 ^{Em} ; 0.00046-0.00050 ^{En-P} ; 0.00030-0.00079 ^{M-S} ; 0.00017-0.00038 St ; 0.00021 ^R	9-11,26-28
28	Kaempferol	C ₁₅ H ₁₀ O ₆	286	L & E-P & St	0.00042-0.035 ^L ; 0.00006- 0.00069 ^{E-P} ; 0.00013 St	9-11,26,28,29
29	Isorhamnetin	C ₁₆ H ₁₂ O ₇	316	L & E-P & Em & En-P & M-S	0-0.041 ^L ; 0.0014-0.0042 ^{E-P} ; 0.000065-0.000093 ^{En-P} ; 0.00069-0.00077 ^{Em} ; 0.00065-0.0023 ^{M-S}	9,10,26,28,29
30	Quecetin-3- <i>O</i> -rhamanoside	C ₂₁ H ₂₀ O ₁₁	448	Fl & L & E-P & St	0.0082-0.086 ^L ; 0.00012- 0.00016 ^{E-P} ; 0.0052 St	10-12,26,28,30
31	Quecetin-3- <i>O</i> -glucoside	C ₂₁ H ₂₀ O ₁₂	464	Fl & L & E-P & Plu & En-P & M-S & St & R	0.023-0.19 ^L ; 0.00025- 0.00056 ^{E-P} ; 0.00018- 0.00042 ^{Plu} ; 0.00013- 0.00025 ^{En-P} ; 0.00037- 0.0012 ^{M-S} ; 0.0017-0.0020 St ; 0.00059 ^R	10-12,26,28

No.	Compounds	Formula	MW	Source	Content (mg/g)	Ref.
32	Quercetin-3- <i>O</i> -rutinoside	C ₂₇ H ₃₀ O ₁₆	610	Fl & L & S-B & E-P & Plu & Em & En-P & M-S & St & R	0.22-2.3 ^L ; 0.00082-0.0017 ^{E-P} ; 0.00011-0.00050 ^{Plu} ; 0.00012-0.00017 ^{Em} ; 0.00038-0.00044 ^{En-P} ; 0.00056-0.0015 ^{M-S} ; 0.023 St ; 0.00040 ^R	10-12,28,31-33
33	Quercetin-3- <i>O</i> -2"-glucosyl-rhamanoside	C ₂₇ H ₃₀ O ₁₆	610	L & St & R	0.030-0.31 ^L ; 0.00090-0.0037 St ; 0.000092 ^R	11,28,34,35
34	Quercetin-3- <i>O</i> -2",6"-di-rhamnosyl-glucoside	C ₃₃ H ₄₀ O ₂₀	756	L	0.0055-0.68 ^L	28,36,37
35	Kaempferol-3- <i>O</i> -rhamnoside	C ₂₁ H ₂₀ O ₁₀	432	Fl & P & L	-	12,36,38
36	Kaempferol-3- <i>O</i> -glucoside	C ₂₁ H ₂₀ O ₁₁	448	L & E-P	0.26-0.44 ^L ; 0.0016-0.0028 ^{E-P}	9,26
37	Kaempferol-7- <i>O</i> -glucoside	C ₂₁ H ₂₀ O ₁₁	448	Fl & L & P	0.0032-0.019 ^L	11,12,28,30,39
38	Kaempferol-3- <i>O</i> -rutinoside	C ₂₇ H ₃₀ O ₁₅	594	Fl & L & E-P & St	0.20-1.3 ^L ; 0.0028-0.0086 ^{E-P} ; 0.0012 St	9,11,12,26,28,30
39	Kaempferol-3- <i>O</i> -2",6"-di-rhamnosyl-glucoside	C ₃₃ H ₄₀ O ₁₉	740	L & St	0.35 ^L ; 0.00075 St	11,36,40
40	Kaempferol-3- <i>O</i> -2"-glucosyl-rhamnoside	C ₂₇ H ₃₀ O ₁₅	594	L	-	26,31
41	Kaempferol-3- <i>O</i> -galactoside-4'- <i>O</i> -glucoside	C ₂₇ H ₃₀ O ₁₆	610	Fl	-	12
42	Kaempferol-4'- <i>O</i> -glucoside	C ₂₁ H ₂₀ O ₁₁	448	Fl	-	12
43	Isorhamnetin-3- <i>O</i> -glucoside	C ₂₂ H ₂₂ O ₁₂	478	Fl & L & E-P & St	0.0077-0.41 ^L ; 0.0016-0.0045 ^{E-P} ; 0.00068 St	9,11,12,28,36,40
44	Isorhamnetin-3- <i>O</i> -rutinoside	C ₂₈ H ₃₂ O ₁₆	624	Fl & L & St	0.14-1.2 ^L ; 0.00089-0.074 St	11,12,28,30,31
45	Isorhamnetin-3- <i>O</i> -2"-glucosyl-rhamnoside	C ₂₈ H ₃₂ O ₁₆	624	L	-	35,41
46	Isorhamnetin-3- <i>O</i> -2",6"-dirhamnosyl-glucoside	C ₃₄ H ₄₂ O ₂₀	770	L	-	36,37

No.	Compounds	Formula	MW	Source	Content (mg/g)	Ref.
47	Tamarixetin	C ₁₆ H ₁₂ O ₇	316	L	-	26,42
48	Myricetin	C ₁₅ H ₁₀ O ₈	318	L & St & R	0.0015-0.013 ^L ; 0.0012 St ; 0.0013 ^R	11,26,28,36,42
49	Syringetin-3- <i>O</i> -rutinoside	C ₂₉ H ₃₄ O ₁₇	654	L	-	30,31
50	Myricetin-3- <i>O</i> -rutinoside	C ₂₇ H ₃₀ O ₁₇	626	L	-	36,40
51	Laricitrin-3- <i>O</i> -rutinoside	C ₂₈ H ₃₂ O ₁₇	640	L	-	26,43,44
52	5,7,5'-trihydroxy-3',4'-dimethoxyflavonol-3- <i>O</i> -6"- rhamnosyl-glucoside	C ₂₉ H ₃₄ O ₁₇	654	L	-	31
53	5, 7-dihydroxyl-4'-methoxyflavonol-3- <i>O</i> -rutinoside (Flavonol glycoside K)	C ₂₈ H ₃₂ O ₁₅	608	L	-	37
<i>Flavone and their glycosides</i>						
54	Apigenin	C ₁₅ H ₁₀ O ₅	270	R-B & L & P & E-P & M-S & St	0.0049-0.084 ^L ; 0.0011- 0.0014 ^{E-P} ; 0.00078- 0.00086 ^{M-S} ; 0.0038 St 0.0021-0.063 ^L ; 0.00037-	5,10,11,26,28,32,39
55	Luteolin	C ₁₅ H ₁₀ O ₆	286	L & E-P & Em & M-S	0.00059 ^{E-P} ; 0.00043- 0.00055 ^{Em} ; 0.00042- 0.00052 ^{M-S}	10,28,36,45
56	Genkwanin	C ₁₆ H ₁₂ O ₅	284	R-B & L & E-P & Em	0.00016-0.0011 ^{E-P} ; 0.00014-0.00018 ^{Em}	5,10,32,46
57	4'- <i>O</i> -methyl-apigenin	C ₁₆ H ₁₂ O ₅	284	L	-	26
58	Apigenin-7- <i>O</i> -glucoside	C ₂₁ H ₂₀ O ₁₀	432	Fl & L & E-P & St	0.0071-0.31 ^L ; 0.0045 St	9,11,12,28,47
59	Luteolin-4'- <i>O</i> -glucoside	C ₂₁ H ₂₀ O ₁₁	448	L	-	47
60	Luteolin-7- <i>O</i> -glucoside	C ₂₁ H ₂₀ O ₁₁	448	L	-	37

No.	Compounds	Formula	MW	Source	Content (mg/g)	Ref.
61	Luteolin-3'- <i>O</i> -glucoside	C ₂₁ H ₂₀ O ₁₁	448	L	-	26,47
62	Chrysoeriol-7- <i>O</i> -glucoside	C ₂₂ H ₂₂ O ₁₁	462	L	-	47
63	Tricetin-4'-methyl ether-3'-glucosides	C ₂₂ H ₂₂ O ₁₂	478	L	-	47
64	Tricin 7- <i>O</i> -glucoside	C ₂₃ H ₂₄ O ₁₂	492	L	-	45
<i>Flavanone glycoside</i>						
65	Liquiritin	C ₂₁ H ₂₂ O ₉	418	S & Plu	0.000075-0.00019 ^{Plu}	6,41
<i>Isoflavone and their glycosides</i>						
66	Genistein	C ₁₅ H ₁₀ O ₅	270	L & St & Fr	0.23-0.27 St ; 0-0.25 ^L ; 0-0.28 ^{Fr}	48-50
67	Genistein-7- <i>O</i> -glucoside	C ₂₁ H ₂₀ O ₁₀	432	L	-	41,51
<i>Flavan-3-ols</i>						
68	Epicatechin	C ₁₅ H ₁₄ O ₆	290	L & E-P & En-P & M-S & St & R	0.0093-0.14 ^L ; 0.0026-0.012 ^{E-P} ; 0.00091-0.0011 ^{En-P} ; 0.00050-0.00054 ^{M-S} ; 0.0022-0.016 St ; 0.0016 ^R	9-11,28,52
69	Catechin	C ₁₅ H ₁₄ O ₆	290	L & E-P	0.079-0.62 ^L ; 0.00039-0.0029 ^{E-P}	9,28,52,54
70	Epigallocatechin	C ₁₅ H ₁₄ O ₇	306	L & En-P & St & R	0.0026-0.3 ^L ; 0.00013-0.00016 ^{En-P} ; 0.012-0.026 St , 0.23 ^R	11,28,52,54
71	Gallocatechin	C ₁₅ H ₁₄ O ₇	306	L	0.08 ^L	52,54
<i>Acylated flavonol glycosides</i>						
72	Quercetin 3- <i>O</i> -2''-(6'''- <i>trans-p</i> -coumaroyl)glucosyl-rhamnoside	C ₃₆ H ₃₆ O ₁₈	756	Fl & L & St	0.089-0.42 ^L ; 0.00033-0.39 St	11,12,26,28
73	Kaempferol 3- <i>O</i> -2''-(6'''- <i>trans-p</i> -coumaroyl)glucosyl-	C ₃₆ H ₃₆ O ₁₇	740	Fl & L & St	0.041-0.44 ^L ; 0.00036-	11,12,26,28

No.	Compounds	Formula	MW	Source	Content (mg/g)	Ref.
	rhamnoside				0.039 St	
74	Isorhamnetin 3- <i>O</i> -2''-(6'''- <i>trans-p</i> -coumaroyl)glucosyl-rhamnoside	C ₃₇ H ₃₈ O ₁₈	770	L	-	35
75	Kaempferol 3- <i>O</i> -2''-(6'''- <i>trans-p</i> -coumaroyl)glucosyl-rhamnoside -7- <i>O</i> -glucoside	C ₄₂ H ₄₆ O ₂₂	902	L	-	35
76	Quercetin 3- <i>O</i> -2''-(6'''- <i>trans-p</i> -coumaroyl)glucosyl-rhamnoside -7- <i>O</i> -glucoside	C ₄₂ H ₄₆ O ₂₃	918	L	-	34,35
77	Myricetin 3- <i>O</i> -2''-(6- <i>trans-p</i> -coumaroyl)glucosyl-rhamnoside	C ₃₆ H ₃₆ O ₁₉	772	L	-	31
78	Kaempferol 3- <i>O</i> -[2''-{6'''-(7''''- <i>O</i> -glucosyl)- <i>trans-p</i> -coumaroyl}]-glucosyl]-rhamnoside	C ₄₂ H ₄₆ O ₂₂	902	L	-	34
79	Quercetin 3- <i>O</i> -2[2''-{6'''-(7''''- <i>O</i> -glucosyl)- <i>trans-p</i> -coumaroyl}]-glucosyl]-rhamnoside	C ₄₂ H ₄₆ O ₂₃	918	L	-	34
80	Quercetin 3- <i>O</i> -4''-(6'''- <i>trans-p</i> -coumaroyl)glucosyl-rhamnoside	C ₃₆ H ₃₆ O ₁₈	756	L	-	30,55
81	Kaempferol 3- <i>O</i> -4''-(6'''- <i>trans-p</i> -coumaroyl)glucosyl-rhamnoside	C ₃₆ H ₃₆ O ₁₇	740	L	-	30,56
82	Kaempferol-3- <i>O</i> -(6''- <i>trans-p</i> -coumaroyl) glucoside	C ₃₀ H ₂₆ O ₁₃	594	L	-	57,58
83	Kaempferol 3- <i>O</i> -2''-(6- <i>cis-p</i> -coumaroyl)glucosyl-rhamnoside	C ₃₆ H ₃₆ O ₁₇	740	L	-	59
84	Quercetin 3- <i>O</i> -2''-(6- <i>cis-p</i> -coumaroyl)glucosyl-rhamnoside	C ₃₆ H ₃₆ O ₁₈	756	L	-	59
85	Quercetin 3- <i>O</i> -2''-(6- <i>trans</i> -feruloyl)glucosyl-rhamnoside	C ₃₇ H ₃₈ O ₁₉	786	L	-	31
86	Kaempferol 3- <i>O</i> -2''-(6- <i>trans</i> -caffeoyl)glucosyl-	C ₃₆ H ₃₆ O ₁₈	756	L	-	31

No.	Compounds	Formula	MW	Source	Content (mg/g)	Ref.
	rhamnoside					
87	Biginkgoside A	C ₇₂ H ₇₂ O ₃₄	1480	L	-	60
88	Biginkgoside B	C ₇₂ H ₇₂ O ₃₆	1512	L	-	60
89	Biginkgoside C	C ₇₂ H ₇₂ O ₃₄	1480	L	-	60
90	Biginkgoside D	C ₇₂ H ₇₂ O ₃₄	1480	L	-	60
91	Biginkgoside E	C ₇₂ H ₇₂ O ₃₆	1512	L	-	60
92	Biginkgoside F	C ₇₂ H ₇₂ O ₃₅	1496	L	-	60
93	Biginkgoside G	C ₇₂ H ₇₂ O ₃₄	1480	L	-	60
94	Biginkgoside H	C ₇₂ H ₇₂ O ₃₄	1480	L	-	60
95	Biginkgoside I	C ₇₂ H ₇₂ O ₃₆	1512	L	-	60
<i>Biflavones</i>						
96	Amentoflavone	C ₃₀ H ₁₈ O ₁₀	538	L & Fl & E-P & St	0.0053-0.052 ^L ; 0.0033-0.0045 ^{E-P} ; 0.0014-0.0053 St	10,11,26,28,42,61
97	Bilobetin	C ₃₁ H ₂₀ O ₁₀	552	E-P & L & Fl & Flu & Em & St & R	0.18-0.81 ^L ; 0.022-0.087 ^{E-P} ; 0.0013-0.0019 ^{Flu} ; 0.00062-0.0010 ^{Em} ; 0.0020-0.0026 St ; 0.000039 ^R	10,11,26,28,32,61-63
98	Sequoiaflavone	C ₃₁ H ₂₀ O ₁₀	552	L	-	58
99	Ginkgetin	C ₃₂ H ₂₂ O ₁₀	566	E-P & L & S & Flu & Em & M-S & St	0.23-1.5 ^L ; 0.14-0.16 ^{E-P} ; 0.093-0.14 ^{Flu} ; 0.00052-0.00070 ^{Em} ; 0.00035-0.00046 ^{M-S} ; 0.0081-0.010 St	3,6,10,11,26,28,32
100	Ginkgetin 7"-O-glucoside	C ₃₈ H ₃₃ O ₁₅	728	L	-	64
101	Isoginkgetin	C ₃₂ H ₂₂ O ₁₀	566	E-P & L & Fl & S & St	0.058-2.0 ^L ; 0.0046-0.42 ^{E-P} ; 0.0047-0.0061 St	3,6,9-11,28,32,61,65

No.	Compounds	Formula	MW	Source	Content (mg/g)	Ref.
102	Isoginkgetin 7''-O-glucoside	C ₃₈ H ₃₃ O ₁₅	728	L	-	64
103	Sciadopitysin	C ₃₃ H ₂₄ O ₁₀	580	E-P & L & Fl & S & Flu & M-S & St & R	0.067-1.9 ^L ; 0.015-0.16 ^{E-P} ; 0.0093-0.014 ^{Flu} ; 0.00032-0.00044 ^{M-S} ; 0.0020-0.0026 St ; 0.000039 ^R	3,6,10,11,26,28,32,61
104	Podocarpusflavone	C ₃₁ H ₂₀ O ₁₀	552	L	-	58,65
105	5'-Methoxybilobetin	C ₃₂ H ₂₂ O ₁₁	582	E-P	-	63,65
106	Amentoflavone 7''-O-glucoside	C ₃₆ H ₂₈ O ₁₅	700	Fl	-	61
107	2,3-Dihydroisoginkgetin	C ₃₂ H ₂₄ O ₁₀	568	L	-	58,65
108	2,3-Dihydrosciadopitysin	C ₃₃ H ₂₆ O ₁₀	582	L	-	58,65
<i>Biflavone precursor</i>						
109	4'-O-methyl-unciflavone F	C ₂₄ H ₁₈ O ₈	434	L	-	26

5 Em: Embryoid, E-P: Exopleura, En-P: Endopleura, Fr: Fruit, L: Leave, Fl: Flower, M-S: Mesosperm, R: Root, R-B: Root bark, P: pollen, Plu: Plumule, S: Seed, S-B:

6 Stem bark, St: Stem, MW: molecular weight.

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9 **Table S3** The alkylphenolic acids and alkylphenols from *G. biloba*

No.	Compounds	Formula	MW	Source	Content (mg/g)	Ref.
<i>Alkylphenolic acids</i>						
110	Ginkgolic acid (C13:0)	C ₂₀ H ₃₂ O ₃	320	E-P & L & Flu & Em & En-P & M-S & F-R	0.33-0.55 ^{E-P} ; 0.038-1.6 ^L ; 0.094-0.11 ^{Flu} ; 0.0047-0.0057 ^{Em} ; 0.0090-0.061 ^{En-P} ; 0.042-0.046 ^{M-S} ; 0-0.034 ^S ; 25 ^{F-R}	9,10,66-69
111	Ginkgolic acid (C14:0)	C ₂₁ H ₃₄ O ₃	334	E-P	-	70
112	Ginkgolic acid (C15:0)	C ₂₂ H ₃₆ O ₃	348	E-P & Fr & L & S & F-R	0.18-0.31 ^L ; 0.0011-0.0076 ^S ; 6.4 ^{F-R}	50,67-69,71
113	Ginkgolic acid (C15:1, 8Z)	C ₂₂ H ₃₄ O ₃	346	Fr & E-P & L & Flu & Em & En-P & M-S & F-R	0.040-0.53 ^{E-P} ; 0.0011-1.3 ^L ; 2.2-2.6 ^{Flu} ; 0.048-0.051 ^{Em} ; 0.02-0.12 ^{En-P} ; 0.040-0.043 ^{M-S} ; 0.0031-0.31 ^S ; 83 ^{F-R}	9,10,12,66,68,69,72-74
114	Ginkgolic acid (C15:1, 10Z)	C ₂₂ H ₃₄ O ₃	346	L & S	0.027-1.8 ^L ; 0.0005-0.0079 ^S	69,72,75,76
115	Ginkgolic acid (C17:0)	C ₂₄ H ₄₀ O ₃	376	E-P & Fr	-	67,71
116	Ginkgolic acid (C17:1, 8Z)	C ₂₄ H ₃₈ O ₃	374	E-P & L & S	0-0.0033 ^L ; 0-0.0007 ^S	66,69,73
117	Ginkgolic acid (C17:1, 10Z)	C ₂₄ H ₃₈ O ₃	374	F-R & E-P & S	32 ^{F-R} ; 0-0.10 ^{E-P} ; 0-3.1 ^L ; 0-0.033 ^S	68,69,74,77
118	Ginkgolic acid (C17:1, 12Z)	C ₂₄ H ₃₈ O ₃	374	E-P & L	2.4-4.4 ^L	76,78,79
119	Ginkgolic acid (C17:2, 8Z 11Z)	C ₂₄ H ₃₆ O ₃	372	E-P & L & N & S	0.0005-0.29 ^L ; 0 -0.0074 ^S	66, 69,74,80
120	Resorcylic acid (C13:0)	C ₂₀ H ₃₂ O ₄	336	S	-	81
121	Resorcylic acid (C15:1, 8Z)	C ₂₂ H ₃₄ O ₄	362	S	-	81
122	Alkyl coumarin (C13:0)	C ₂₃ H ₃₆ O ₃	360	Fr	-	82

123	Alkyl coumarin (C15:1, 6Z)	C ₂₅ H ₃₈ O ₃	386	Fr	-	82
124	Alkyl coumarin (C17:0)	C ₂₇ H ₄₄ O ₃	416	Fr	-	82
<i>Alkylphenols</i>						
125	Cardanols (C13:0)	C ₁₉ H ₃₂ O	276	E-P	-	67,83
126	Cardanols (C15:0)	C ₂₁ H ₃₆ O	304	E-P & Fr	-	67,71,83
127	Cardanols (C15:1, 8Z)	C ₂₁ H ₃₄ O	302	E-P & Fr	-	71,77,83
128	Cardanols (C17:1, 8Z)	C ₁₉ H ₃₀ O	274	E-P	-	84
129	Cardanols (C17:1, 10Z)	C ₁₉ H ₃₀ O	274	E-P	-	77,83,84
130	Cardol (C13:0)	C ₁₉ H ₃₂ O ₂	292	E-P	-	83
131	Cardol (C15:0)	C ₂₁ H ₃₆ O ₂	320	E-P & Fr	-	67,71,85
132	Cardol (C15:1, 8Z)	C ₂₁ H ₃₄ O ₂	318	E-P & Fr	-	67,71
133	Cardol (C17:1, 10Z)	C ₂₃ H ₃₈ O ₂	346	E-P	-	77
134	Urushiol (C15:0)	C ₂₁ H ₃₆ O ₂	320	L	-	86
135	Urushiol (C19:1, 8Z)	C ₂₅ H ₄₂ O ₂	374	L	-	42

10 Em: Embryoid, E-P: Exopleura, En-P: Endopleura, Fr: Fruit, F-R: Fruit rind, L: Leave, M-S: Mesosperm, N: Nut, Plu: Plumule, S: Seed, MW: molecular weight

12 Table S4 Proanthocyanidins and carboxylic acids from *G. biloba*

No.	Compounds	Formula	MW	Source	Content (mg/g)	Ref.
<i>Proanthocyanidins</i>						
136	Epicatechin-(4 β →8)-catechin	C ₃₀ H ₂₆ O ₁₂	578	L	-	54
137	Gallocatechin-(4 β →8)-catechin	C ₃₀ H ₂₆ O ₁₃	594	L	-	54
138	Catechin-(4 β →8)-catechin	C ₃₀ H ₂₆ O ₁₂	578	L	-	54
139	Epigallocatechin-(4 β →8)-catechin	C ₃₀ H ₂₆ O ₁₂	578	L	0.15 ^L	52,54
140	Epigallocatechin-(4 β →6)-catechin	C ₃₀ H ₂₆ O ₁₂	578	L	-	54
141	Epigallocatechin-(4 β →8)-epigallocatechin	C ₃₀ H ₂₆ O ₁₄	610	L	-	54
142	Epiallocatechin-(4 β →8)-gallocatechin	C ₃₀ H ₂₆ O ₁₄	610	L	-	54
143	Epigallocatechin(4 β →8)-epigallocatechin-(4 β →8)-catechin	C ₄₅ H ₃₈ O ₂₀	898	L	-	52
<i>Carboxylic acids</i>						
144	Protocatechuic acid	C ₇ H ₆ O ₄	154	E-P & B-B & L & St & R	0.0031-1.3 ^L ; 0.057-0.81 St ; 0.16 ^R	3,11,13,87-89
145	<i>p</i> -hydroxybenzoic acid	C ₇ H ₆ O ₃	138	L & St & R	0.0060-0.57 ^L ; 0.00013-0.00031 St ; 0.000063 ^R	11,28,32,88,89
146	Vanillic acid	C ₈ H ₈ O ₄	168	B-B & L	0.094-0.20 ^L	13,89
147	Isovanillic acid	C ₈ H ₈ O ₄	168	L	-	90
148	Gallic acid	C ₇ H ₆ O ₅	170	L	0.033-0.20 ^L	88,90,91
149	<i>p</i> -coumaric acid	C ₉ H ₈ O ₃	164	P & L & E-P & St & R	0.00050-0.065 ^L ; 0.0029-0.0037 ^{E-P} ; 0.00010-0.0023 St ; 0.0012 ^R	28,39,88,90 Lu, 2017 #540}

No.	Compounds	Formula	MW	Source	Content (mg/g)	Ref.
150	Caffeic acid	C ₉ H ₈ O ₄	180	L & E-P & St & R	0.00030-1.3 ^L ; 0.016-0.031 ^{E-P} ; 0.077-0.19 St ; 0.021 ^R	9,11,28,89,90
151	Sinapic acid	C ₁₁ H ₁₂ O ₅	224	L	-	90
152	Ferulic acid	C ₁₀ H ₁₀ O ₄	194	L & St & R	0.0010L; 0.00099- 0.0074 St ; 0.0049 ^R	11,90
153	Chlorogenic acid	C ₁₆ H ₁₈ O ₉	354	L & St & R	0.00070-0.0035 ^L ; 0.0010-0.0063 St ; 0.0023 ^R	11,28,90,91
154	6-Hydroxy-kynurenic acid	C ₁₀ H ₇ NO ₄	205	L	0.06-0.31 ^L	30,88,92
155	D-glucaric acid	C ₆ H ₁₀ O ₈	210	L	-	93,94
156	Ascorbic acid	C ₆ H ₈ O ₆	176	L	-	93
157	Quinic acid	C ₇ H ₁₂ O ₆	192	L	-	93,95
158	Shikimic acid	C ₇ H ₁₀ O ₅	174	L & E-P	1.2-3.9 ^{E-P}	32,93,96
159	Dihydrophaseic acid 3'-O-glucoside	C ₂₁ H ₃₂ O ₁₀	444	S-B	-	7
160	Ginkgonine	C ₁₄ H ₂₄ O ₈	320	E-P	-	97

13 B-B: Branch bark, E-P: Exopleura, L: Leave, P: pollen, R: Root, R-B: Root bark, S-B: Stem bark, St: Stem, MW: molecular weight

14 [Table S5](#) Lignans, simple phenylpropanoids, phenolic compounds, alkaloids, and steroids from *G. biloba*

No.	Compounds	Formula	MW	Source	Content (mg/g)	Ref.
<i>Lignans</i>						
161	Sesamin	C ₂₀ H ₁₈ O ₆	354	L & R & W	-	26,42,98,99
162	Syringaresinol-4'- <i>O</i> -glucoside	C ₂₈ H ₃₆ O ₁₃	580	L	-	26
163	Lariciresinol-4'- <i>O</i> -glucoside	C ₂₆ H ₃₄ O ₁₁	522	L	-	31
164	Ginkgool	C ₂₀ H ₂₄ O ₇	376	R	-	98
165	(-)-Olivil	C ₂₀ H ₂₄ O ₇	376	L & S-B	-	7,25
166	(-)-Olivil 4- <i>O</i> -glucoside	C ₂₆ H ₃₄ O ₁₂	538	Fl	-	62
167	(-)-Olivil 4,4'-di- <i>O</i> -glucoside	C ₃₂ H ₄₄ O ₁₇	700	S-B	-	7
168	Pinoresinol	C ₂₀ H ₂₂ O ₆	358	L	-	98
169	(+)-1-Hydroxypinoresinol 4"- <i>O</i> - glucoside	C ₂₆ H ₃₂ O ₁₂	536	S	-	100
170	Lariresinol	C ₂₂ H ₂₆ O ₈	418	S-B	-	7
171	(+)-Lariciresinol	C ₂₀ H ₂₄ O ₆	360	S-B	-	7
172	(+)-1-Hydroxypinoresinol	C ₂₀ H ₂₂ O ₇	374	S-B	-	7
173	(+)-Pinoresinol <i>O</i> -glucoside	C ₂₆ H ₃₂ O ₁₁	520	S-B	-	7
174	(7 <i>R</i> ,8 <i>S</i>)-Dihydrodehydrodiconiferyl alcohol-4- <i>O</i> -glucoside	C ₂₆ H ₃₄ O ₁₁	522	L & S	-	31,100
175	(7 <i>S</i> , 8 <i>R</i>)-Urolignoside-9'- <i>O</i> -glucoside	C ₃₂ H ₄₄ O ₁₆	684	Fl & S	-	62,101
176	Icariside E	C ₂₆ H ₃₄ O ₁₀	506	L	-	25
177	Ginkgoside B	C ₂₄ H ₂₈ O ₁₁	492	L	-	25
178	5-(3-Hydroxypropyl)-6-methoxy-2-(3'-methoxy-4'-hydroxyphenyl)-3-benzofurancarboxaldehyde	C ₂₀ H ₂₀ O ₆	356	S-B	-	7
179	(+)-Isolariciresinol	C ₂₀ H ₂₄ O ₆	360	R	-	98
180	(-)-Isolariciresinol 4- <i>O</i> -glucoside	C ₂₆ H ₃₄ O ₁₁	522	Fl	-	62

No.	Compounds	Formula	MW	Source	Content (mg/g)	Ref.
181	(+)-Cyclooolivil	C ₂₀ H ₂₄ O ₇	376	R & L & S-B	-	7,25,98
182	(+)-Cyclooolivil-6-O-glucoside	C ₂₆ H ₃₄ O ₁₂	538	Fl	-	62
183	(7 <i>S</i> ,8 <i>R</i>)-Erythro-guaiacyl-glycerol- β - <i>O</i> -4'-dihydroconiferyl ether	C ₂₀ H ₂₆ O ₇	378	L	-	25
184	(8 <i>S</i>)-3-methoxy-8,4'-oxyneolignan-4,9,9'-triol 3'- <i>O</i> -glucoside	C ₂₅ H ₃₄ O ₁₁	510	S-B	-	7
<i>Simple phenylpropanoids</i>						
185	2 <i>S</i> -3-(4-hydroxy-3-meth-oxyphenyl) propane-1,2-diol	C ₁₀ H ₁₄ O ₄	198	Fl & L	-	12,25
186	7,8-dihydro-(<i>R</i>)-7-methoxyconiferyl alcohol	C ₁₁ H ₁₆ O ₄	212	S-B	-	7
187	2 <i>R</i> -3-(4-hydroxy-3-meth-oxyphenyl) propane-1,2-diol	C ₁₀ H ₁₄ O ₄	198	S	-	100
188	Piperoside	C ₁₆ H ₂₄ O ₉	360	Fl	-	12
189	6- <i>O</i> -(4-hydroxyhydrocinnamoyl)-glucose	C ₁₅ H ₂₀ O ₈	328	L	-	25
190	Stroside B	C ₁₆ H ₂₄ O ₉	360	Fl	-	62
<i>Phenylethanoids</i>						
191	Ginkgoside C	C ₂₀ H ₃₀ O ₁₃	478	L	-	51
192	Ginkgoside D	C ₁₉ H ₂₈ O ₁₂	448	L	-	51
193	2-(3,4-Hihydroxyphenyl)ethyl 3- <i>O</i> -glucosyl-glucoside	C ₂₀ H ₃₀ O ₁₃	478	L	-	51
194	Coniferin	C ₁₆ H ₂₂ O ₈	342	S & E-P & Plu & Em	0.0035-0.028 ^L ; 0.00079-0.001 ^{E-P} ; 0.0014-0.0018 ^{Plu} ; 0.00058-0.00070 ^{Em}	6,9,10,100

No.	Compounds	Formula	MW	Source	Content (mg/g)	Ref.
195	Trans-cinnamic acid-4- <i>O</i> -glucoside	C ₁₅ H ₁₈ O ₈	320	Fl	-	62
196	<i>p</i> -coumaryl alcohol glucoside	C ₁₆ H ₂₀ O ₇	318	Fl	-	62
197	Methylconiferin	C ₁₇ H ₂₄ O ₈	356	Fl	-	62
198	<i>Cis-p</i> -coumaric acid 4- <i>O</i> -glucoside	C ₁₅ H ₁₈ O ₈	320	Fl	-	62
199	Cis-coniferin	C ₁₆ H ₂₂ O ₈	342	Fl	-	62
<i>Phenolic compounds</i>						
200	Scrophenoside G	C ₂₆ H ₃₀ O ₁₅	582	S	-	101
201	Salicin	C ₁₃ H ₁₈ O ₇	286	L	-	51
202	Polydatin	C ₂₀ H ₂₂ O ₈	390	L	-	51
203	Pyroatechol	C ₁₅ H ₁₄ O ₆	290	E-P	-	3
204	7- <i>O</i> -Glucosyloxy-5-hydroxy-1(3H)-isobenzofuranone	C ₁₄ H ₁₆ O ₉	328	Fl	-	12
205	Benzylalcohol <i>O</i> -6'-arabinosyl-glucoside	C ₁₈ H ₂₆ O ₁₀	402	Fl	-	62
206	Vanillyl alcohol	C ₈ H ₁₀ O ₃	154	S-B	-	7
207	3,4-Dimethoxyphenyl-glucoside	C ₁₄ H ₂₀ O ₈	316	S-B	-	7
208	3,4-Dimethoxyphenyl alcohol-7- <i>O</i> -glucoside	C ₁₅ H ₂₂ O ₈	330	S-B	-	7
209	GA-1	C ₁₇ H ₁₆ O ₂	252	L	-	42
210	Ginkgobilol	C ₁₈ H ₂₀ O ₄	300	L	-	21
211	Esculin	C ₁₅ H ₁₆ O ₉	340	L	-	51
<i>Alkaloids</i>						
212	Argaminolic A	C ₁₁ H ₁₁ NO ₄	221	Fl	-	12
213	4,4'-Dihydroxy-3,3'-imino-di-benzoic acid	C ₁₄ H ₁₁ NO ₆	289	Fl	-	12
214	Nicotinamide	C ₆ H ₆ N ₂ O	122	Fl	-	12
215	Uracil	C ₄ H ₄ N ₂ O ₂	112	Fl	-	12
216	IAA-Asp- <i>N</i> -Glc	C ₂₁ H ₂₆ N ₂ O ₁₀	466	S	-	102

No.	Compounds	Formula	MW	Source	Content (mg/g)	Ref.
217	IAA-Glu- <i>N</i> -Glc	C ₂₀ H ₂₄ N ₂ O ₁₀	452	S	-	102
218	Ginkgotoxin	C ₈ H ₉ NO ₃	167	S	-	103
<i>Steroids/phytosterols</i>						
219	β-Sitosterol	C ₂₉ H ₅₀ O	414	L & S & P & R- B & E-P & N	-	5,6,39,97,104-106
220	Stigmasterol	C ₂₉ H ₄₈ O	412	L & P	-	39,105
221	Campesterol	C ₂₈ H ₄₈ O	400	N	-	106
222	Daucosterol	C ₃₅ H ₆₀ O ₆	576	R-B & E-P & L & S & B-B	-	3,5,6,13,32
223	Stigmast-3,6-dione	C ₂₉ H ₄₈ O ₂	428	E-P	-	97
224	Stigmast-4-ene-3,6-dione	C ₂₉ H ₄₆ O ₂	426	E-P	-	97

15 B-B: Branch bark, Em: Embryoid, E-P: Exopleura, Fl: Flower, L: Leave, N: Nut, P: pollen, Plu: Plumule, R-B: Root bark, S: Seed, S-B: Stem bark, MW: molecular
16 weight

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