

Supplementary information

**From chemical markers to quality markers: An integrated approach
of UPLC/Q-TOF, NIRS and chemometrics for the quality assessment
of honeysuckle buds**

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Table S1 Detailed information about the *Lonicera japonica* and *Lonicera hypoglauca* samples

No	Origin	Species	CA (%)	Swertiamarin (%)	Vogeloside (%)	3,5-diCQA (%)	Inhibition activity of NF- κ B (%)
1	Shandong	LJF	2.31	1.22	0.99	1.19	27.79
2	Hebei	LJF	2.69	1.03	0.16	0.81	17.86
3	Hebei	LJF	2.86	0.97	1.02	0.96	39.84
4	Henan	LJF	2.24	1.04	1.30	1.02	30.81
5	Henan	LJF	2.68	1.01	1.21	0.81	24.87
6	Henan	LJF	2.65	1.20	0.60	1.06	24.58
7	Henan	LJF	2.63	0.94	0.69	0.82	26.85
8	Henan	LJF	2.76	1.45	0.77	1.07	27.35
9	Shandong	LJF	2.62	1.41	1.36	0.89	22.57
10	Shandong	LJF	1.91	1.58	0.66	1.00	26.22
11	Shandong	LJF	2.35	1.36	0.66	0.76	34.17
12	Shandong	LJF	2.57	0.62	1.27	0.82	22.89
13	Shandong	LJF	2.46	1.19	1.38	0.88	28.08
14	Shandong	LJF	2.62	1.22	1.71	0.91	32.83
15	Shandong	LJF	2.22	0.92	1.48	0.59	69.52
16	Shandong	LJF	2.47	0.85	1.22	0.66	61.07
17	Shandong	LJF	2.47	1.08	1.51	0.80	41.18
18	Shandong	LJF	2.82	1.25	2.46	1.02	31.81
19	Shandong	LJF	2.21	1.05	0.78	0.64	57.49
20	Shandong	LJF	2.48	1.04	0.35	0.70	46.50
21	Shandong	LJF	2.20	0.94	1.52	0.78	23.33
22	Guangxi	LJF	2.54	1.15	2.89	1.44	48.09
23	Hebei	LJF	2.78	0.82	0.71	0.67	36.95
24	Hebei	LJF	2.30	0.93	1.13	0.63	26.53
25	Henan	LJF	2.27	1.31	1.25	0.74	31.59
26	Henan	LJF	2.52	1.23	0.86	0.77	29.85
27	Henan	LJF	2.80	1.06	0.13	0.66	31.69
28	Henan	LJF	2.24	0.96	1.04	0.61	27.90
29	Henan	LJF	1.82	1.40	0.66	0.68	36.68
30	Hebei	LJF	2.62	0.71	1.12	0.71	21.98
31	Hebei	LJF	2.60	0.60	1.03	0.64	18.02
32	Hebei	LJF	2.54	0.90	1.53	0.93	29.62
33	Hebei	LJF	2.56	0.79	1.30	0.67	43.22
34	Hebei	LJF	2.39	0.69	1.52	0.63	31.79
35	Hebei	LJF	2.59	0.96	0.78	0.73	20.08
36	Hebei	LJF	2.38	0.79	0.45	0.89	21.36
37	Hebei	LJF	2.15	1.04	0.35	0.77	29.16
38	Guangdong	LJF	2.69	0.97	0.12	1.07	17.94
39	Shandong	LJF	2.09	1.14	0.33	1.06	30.86
40	Shandong	LJF	2.66	0.92	3.82	0.96	26.65
41	Shandong	LJF	0.62	0.47	0.36	0.26	32.83

42	Shandong	LJF	1.65	1.22	0.07	0.73	21.17
43	Shandong	LJF	0.72	1.33	0.73	0.41	19.62
44	Henan	LJF	1.44	1.71	0.54	0.95	37.37
45	Henan	LJF	0.25	1.32	1.76	0.24	13.44
46	Hebei	LJF	1.97	1.41	4.95	1.54	36.10
47	Henan	LJF	2.69	0.90	0.35	0.85	29.25
48	Henan	LJF	2.39	1.83	0.89	1.22	25.32
49	Henan	LJF	2.24	1.17	0.49	0.73	35.60
50	Henan	LJF	2.04	0.86	1.67	0.64	26.04
51	Zhejiang	LJF	2.53	0.47	0.21	0.54	31.57
52	Hebei	LJF	2.59	1.35	1.15	0.96	30.01
53	Shandong	LJF	2.50	1.01	1.20	0.77	37.64
54	Shandong	LJF	2.00	1.12	0.76	0.66	28.51
55	Shandong	LJF	2.99	1.18	3.54	0.78	39.06
56	Shandong	LJF	2.32	1.04	0.65	0.89	17.67
57	Shandong	LJF	2.05	1.28	2.54	0.79	33.62
58	Shandong	LJF	2.40	1.03	2.20	0.83	19.18
59	Shandong	LJF	2.23	1.00	3.18	0.75	39.30
60	Shandong	LJF	2.31	1.08	1.87	0.72	24.78
61	Shandong	LJF	2.44	1.11	0.91	0.86	30.22
62	Shandong	LJF	2.40	1.33	0.87	0.77	25.29
63	Hebei	LJF	2.24	1.47	0.44	0.99	31.81
64	Hebei	LJF	1.44	1.11	2.66	0.72	26.91
65	Shandong	LJF	2.25	1.14	0.17	0.80	23.79
66	Shandong	LJF	0.85	1.36	4.39	0.44	35.06
67	Guizhou	LF1	1.38	0.22	0.15	4.46	-
68	Guizhou	LF1	1.28	0.25	0.04	3.57	-
69	Zhejiang	LF2	2.26	0.15	0.04	1.36	-
70	Fujian	LF2	2.21	0.26	0.01	1.47	-
71	Guangxi	LF2	4.20	0.34	0.01	1.80	-
72	Guangxi	LF2	1.95	0.12	0.03	0.86	-
73	Guangxi	LF2	3.32	0.23	0.02	1.45	-
74	Guangxi	LF2	4.16	0.42	0.02	1.86	-
75	Guangxi	LF2	4.68	0.45	0.02	2.05	-
76	Guangxi	LF2	2.87	0.17	0.02	1.28	-
77	Guangxi	LF2	2.34	0.25	0.02	1.44	-
78	Chongqing	LF3	2.36	0.15	0.04	0.99	-
79	Chongqing	LF3	7.94	0.34	0.13	4.03	-
80	Chongqing	LF3	6.76	0.38	0.09	2.92	-
81	Chongqing	LF3	3.34	0.15	0.06	1.90	-
82	Chongqing	LF3	3.99	0.23	0.05	2.21	-
83	Chongqing	LF3	8.37	0.29	0.12	3.79	-
84	Hunan	LF3	3.92	0.35	0.07	1.54	-
85	Hunan	LF3	3.47	0.21	0.06	1.53	-

86	Hunan	LF3	1.71	0.12	0.03	0.57	-
87	Hunan	LF3	5.83	0.45	0.08	3.21	-
88	Hunan	LF3	4.99	0.33	0.09	2.03	-
89	Chongqing	LF3	1.75	0.20	0.02	1.37	-
90	Chongqing	LF3	8.21	0.40	0.13	4.19	-
91	Chongqing	LF3	6.04	0.33	0.09	1.64	-
92	Guangdong	LF4	0.26	0.25	0.06	0.11	-
93	Guangdong	LF4	0.16	0.31	0.00	0.19	-
94	Guangdong	LF4	1.06	0.34	0.10	0.36	-
95	Guangdong	LF4	4.60	0.30	0.07	1.58	-
96	Guangdong	LF4	2.16	0.17	0.04	0.87	-
97	Guangdong	LF4	1.98	0.13	0.03	0.73	-
98	Guangdong	LF4	1.21	0.08	0.02	0.43	-

LF1=*Lonicera fulvotomentosa* Hsu et S.C.Cheng; LF2=*Lonicera hypoglauca* Miq.; LF3=*Lonicera macranthoides*; Hand.-Mazz; LF4=*Lonicera confusa* DC.

Table S2. The methodology parameters and the calibration curves of the HPLC analysis

Compounds	t_R (min)	Linear ranges ($\mu\text{g/mL}$)	Calibration curves	R^2	LOD ($\mu\text{g/mL}$)	Repeatability (RSD%, $n=6$)	Recovery (%, $n=3$)
CA	16.8	5.98-598	$Y=7953108X+18985$	0.9998	0.82	1.0%	98.9%
3,5-diCQA	19.4	3.20-320	$Y=9718321X+7046$	0.9999	0.45	0.9%	101.3%
swertiamarin	37.6	9.94-994	$Y=6603188X+41676$	0.9996	0.53	1.0%	102.4%