

CHEMICAL COMPOSITION OF THE ESSENTIAL OIL OF THE ROOTS OF *Actinidia chinensis* FROM CHINA

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The genus *Actinidia* is represented in the flora of China by 44 species [1]. Among them, *Actinidia chinensis* Planch. is an endemic herbaceous medicinal plant distributed mainly in the southwest of China [1].

To the best of our knowledge, there are no references about the oil content and chemical composition of the roots of *Actinidia chinensis* Planch. We report here the results of our studies on the composition of the roots of *Actinidia chinensis* Planch. from China.

TABLE 1. Chemical Composition of the Essential Oil from Roots of *Actinidia chinensis*

Compounds	LRI/ ref. LRI	Identif.	Area, %	Compounds	LRI/ ref. LRI	Identif.	Area, %
1-Heptene	<700/694	LRI, MS	0.20	Tridecane	1296/1300	LRI, MS, Co-GC	1.62
Heptane	700/700	LRI, MS, Co-GC	1.01	Novatone	1350/1348	LRI, MS	0.21
3,3-Dimethyl-2-butanone	705/-	MS	Tr.	<i>n</i> -Decanoic acid	1354/1349	LRI, MS	2.64
Acetal	720/719	LRI, MS	1.45	5-Dodecanol	1379/-	MS	0.64
3-Methyl-2-pentanone	743/750	LRI, MS	1.32	2-Dodecanone	1385/1388	LRI, MS	0.79
1-Ethoxypentane	747/742	LRI, MS	0.36	5,9-Dimethyl-1-decanol	1388/-	MS	1.88
2-Methylheptane	755/760	LRI, MS	1.76	2-Tetradecanol	1390/-	MS	0.14
Octane	798/800	LRI, MS, Co-GC	5.16	Allyl veratrole	1394/1399	LRI, MS	0.74
Furfural	823/828	LRI, MS, Co-GC	2.59	Paeonal	1439/1438	LRI, MS	2.81
5-Methyl-2-furancarboxaldehyde	958/961	LRI, MS	0.32	Asarone	1554/1678	LRI, MS	1.96
Decane	992/1000	LRI, MS, Co-GC	2.94	Spathulenol	1589/1578	LRI, MS	0.63
3,5-Dihydroxytoluene	1078/-	MS	0.62	Isoaromadendrene epoxide	1596/1579	LRI, MS	0.85
Linalool oxide	1082/1082	LRI, MS	2.10	β -Guaiene	1605/1500	LRI, MS	0.76
Undecane	1092/1100	LRI, MS, Co-GC	2.16	Cedrol	1616/1625	LRI, MS	1.98
Camphor	1137/-	MS	2.77	<i>tau</i> -Muurolol	1647/1643	LRI, MS	1.79
Verbenol	1155/1152	LRI, MS	1.06	δ -Cadinol	1650/1649	LRI, MS	1.33
Borneol	1159/1159	LRI, MS	1.99	Juniper camphor	1661/1675	LRI, MS	1.52
Dodecane	1203/1200	LRI, MS, Co-GC	29.39	9-Hexadecenoic acid	1933/1938	LRI, MS	Tr.
4-Methyldodecane	1258/1259	LRI, MS	2.45	<i>n</i> -Hexadecanoic acid	1952/1957	LRI, MS	0.98
2-Methyldodecane	1262/1263	LRI, MS	1.24	Linoleic acid	2123/2113	LRI, MS	0.91
2-Methyl-5-isopropylphenol	1288/1292	LRI, MS	1.32				

Tr.: trace amount.

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The dried species were purchased from Affiliated Hospital of Hubei Institute for Nationalities; Druggist En Tao of Affiliated Hospital of Hubei Institute for Nationalities identified the sample. The roots were crumbled and 240.0 g crumbled sample was placed in a three-neck flask. Distilled water (1000 mL) was added, and the contents was distilled for 5 h in an oil bath. The distillate was extracted with anhydrous ether (AR grade). The extracted solution was combined, dried over anhydrous sodium sulfate (AR grade) overnight, and concentrated by passing a slow stream of oxygen-free nitrogen gas (99.99%) to it without ether. An orange-colored essential oil (0.0886 g) was obtained and stored at 4°C until analysis. The yield was 0.037%. The essential oil analyses were carried out using an Agilent 6890N gas chromatograph equipped with an Agilent 5975i mass selective detector (Agilent Technologies, Inc., USA).

In total, 41 compounds were identified in roots of *Actinidia chinensis* Planch. from China (Table 1).

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