ESSENTIAL OIL COMPOSITION OF THE FLOWERS OF *Plumeria rubra* cv. *acutifolia* FROM CHINA

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The genus *Plumeria* (Apocynaceae) originated from Central America and consists of about eight species of which many are widely distributed in tropical countries [1]. *Plumeria rubra* L. cv. *acutifolia*, one of the two species of the genus occurring in China, is a small tree whose flowers are used to treat cold and fever, whooping cough, tracheitis, infective hepatitis, diarrhea, calculus of urethra, and mastitis [2].

In this report, the essential oil was obtained from the flowers of *Plumeria rubra* cv. *acutifolia*. collected from Zhaoqing City, Guangdong Province of China by supercritical CO₂ extraction [3]. The chemical composition of the essential oil was subsequently analyzed by GC/MS.

Thirty-one compounds were identified, representing 88.42% of the total oil. The major compounds are (±)-*trans*-nerolidol (17.28%), hexadecanoic acid (11.47%), tetradecanoic acid (10.68%), β-linalool (8.86%), octadecenoic acid (5.87%), and *cis*-linoleic acid (4.68%) (Table 1). Further investigation of the flowers of *Plumeria rubra* L. cv. *acutifolia* essential oil is still needed.

TABLE 1. Essential Oil Composition of the Flowers of *Plumeria rubra*. cv. *Acutifolia*

Compound	Rt, min	%	Compound	Rt, min	%
Benzene acetaldehyde	6.563	0.24	Benzyl benzoate	28.271	1.35
<i>cis</i> -Linalool oxide	7.468	0.73	Tetradecanoic acid	28.605	10.68
<i>trans</i> -Linalool oxide	8.102	0.27	Tetradecanoic acid, ethyl ester	29.123	1.05
β-Linalool	8.365	8.86	Hexadecanol	29.607	0.95
β-Citral	9.541	1.14	Nonadecane	30.984	0.26
<i>cis</i> -Geraniol	11.256	0.85	Hexadecanoic acid	31.506	11.47
<i>trans</i> -Geraniol	12.958	3.48	Hexadecanoic acid, ethyl ester	31.823	4.12
Geraniol	14.178	0.62	3,7,11-Trimethyl-2,6,10-	33.022	1.18
2,4-Bis(1,1-dimethylethyl)-5-methyl-phenol	17.369	0.18	dodecatrien-1-ol		
(±)- <i>trans</i> -Nerolidol	20.556	17.28	Tetradecanol	34.119	1.98
Dodecanoic acid	21.443	0.69	(<i>S</i>)-4,4-Dimethyl-2-(4-methyl-3-	34.401	0.23
Squalene	22.281	0.55	cyclohexen-1-yl)-1,1,5-hexadiene		
(<i>E</i>)-Farnesene epoxide	24.372	0.78	Heneicosane	35.638	0.57
α-Bisabolol	25.303	1.29	<i>cis</i> -Linoleic acid	36.578	4.68
1,6,10-Dodecatrien-3-ol, 3,7,11-trimethyl-	25.785	0.36	Linolenic acid, methyl ester	36.796	2.76
<i>cis</i> -Farnesal	26.697	3.31	Octadecenoic acid	37.686	5.87
<i>trans</i> -Farnesal	27.428	0.64	Total		88.42

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