

## 卫矛科中的倍半萜成分

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### NEW SESQUITERPENE POLYESTERS FROM CELASTRACEAE

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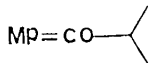
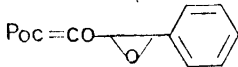
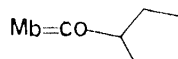
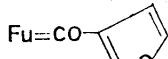
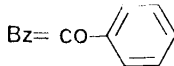
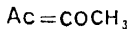
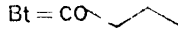
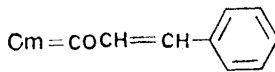
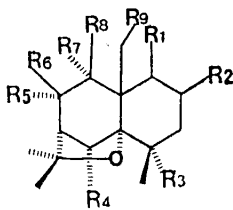
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**关键词** 杀虫剂; 南蛇藤属; 卫矛属; 二氢-β-沉香呋喃多元醇酯

**Key words** Insecticide; *Celastrus*; *Evonymus*; Dihydro-β-agarofuran polyester

卫矛科 (Celastraceae) 植物在我国分布较广, 其中一些种为中草药所用, 很多种民间常作为天然杀虫药。最近, 我们从4种卫矛科植物大芽南蛇藤 (*C. gemmatus* Loesen.), 灯油藤 (*C. paniculatus* Willd.), 少果南蛇藤 (*C. rosthornianus* Loesen.) 和白杜 (*E. bungeanus* Maxim.) 的根皮或其种子中分离得30多个倍半萜化学成分。经化学和物理方法确定了其中28个新化合物, 均属二氢-β-沉香呋喃的多元醇酯<sup>1)</sup>[1, 2], 有的化合物分子中出现了少见的酰基结构。昆虫试验表明, 其中一部分化合物具有一定的杀虫活性及昆虫拒食作用。



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\* 博士研究生, 本简报为其博士论文的部分内容。

1) Liu Jikai, Ph. D. Thesis, Kunming Institute of Botany, 1988.

1.  $R_1 = R_2 = R_7 = OFu$ ,  $R_3 = OH$ ,  $R_4 = R_9 = OAc$ ,  $R_5 = R_6 = R_8 = H$
2.  $R_1 = R_7 = OFu$ ,  $R_2 = Omb$ ,  $R_3 = OH$ ,  $R_4 = R_9 = OAc$ ,  $R_5 = R_6 = R_8 = H$
3.  $R_1 = Omb$ ,  $R_2 = R_7 = OFu$ ,  $R_3 = OH$ ,  $R_4 = R_9 = OAc$ ,  $R_5 = R_6 = R_8 = H$
4.  $R_1 = R_2 = R_4 = R_9 = OAc$ ,  $R_3 = R_5 = R_6 = R_8 = H$ ,  $R_7 = OBz$
5.  $R_1 = R_7 = OFu$ ,  $R_2 = R_4 = R_9 = OAc$ ,  $R_3 = OH$ ,  $R_5 = R_6 = R_8 = H$
6.  $R_1 = R_7 = OBz$ ,  $R_2 = R_4 = R_9 = OAc$ ,  $R_3 = OH$ ,  $R_5 = R_6 = R_8 = H$
7.  $R_1 = ORz$ ,  $R_2 = R_4 = R_9 = OAc$ ,  $R_3 = OH$ ,  $R_5 = R_6 = R_8 = H$ ,  $R_7 = OFu$
8.  $R_1 = R_6 = OBz$ ,  $R_4 = R_8 = R_9 = OAc$ ,  $R_2 = OHx$ ,  $R_3 = R_5 = R_7 = H$
9.  $R_1 = OAc$ ,  $R_2 = Omb$ ,  $R_3 = R_6 = OH$ ,  $R_5 = R_8 = R_9 = H$ ,  $R_4 = R_7 = OBz$
10.  $R_1 = R_6 = OAc$ ,  $R_2 = Omb$ ,  $R_3 = OH$ ,  $R_4 = R_7 = OBz$ ,  $R_5 = R_8 = R_9 = H$
11.  $R_1 = R_2 = R_7 = OBz$ ,  $R_3 = R_5 = R_8 = R_9 = H$ ,  $R_4 = OH$ ,  $R_6 = OAc$
12.  $R_1 = OBz$ ,  $R_2 = OFu$ ,  $R_3 = R_5 = R_8 = R_9 = H$ ,  $R_4 = OH$ ,  $R_6 = Omb$ ,  $R_7 = OAc$
13.  $R_1 = R_4 = R_5 = OAc$ ,  $R_2 = R_3 = R_6 = R_7 = R_9 = H$ ,  $R_8 = OBz$
14.  $R_1 = R_7 = OBz$ ,  $R_2 = R_3 = R_6 = R_8 = R_9 = H$ ,  $R_4 = OH$ ,  $R_5 = OAc$
15.  $R_1 = OPoc$ ,  $R_2 = R_3 = R_4 = R_5 = R_6 = R_8 = R_9 = H$ ,  $R_7 = OAc$
16.  $R_1 = OCm$ ,  $R_2 = R_3 = R_4 = R_5 = R_6 = R_8 = R_9 = H$ ,  $R_7 = OAc$
17.  $R_1 = R_2 = R_7 = OAc$ ,  $R_3 = R_5 = R_6 = R_8 = R_9 = H$ ,  $R_4 = OCm$
18.  $R_1 = OPoc$ ,  $R_2 = R_7 = OAc$ ,  $R_3 = R_4 = R_5 = R_6 = R_8 = R_9 = H$
19.  $R_1 = OPoc$ ,  $R_2 = Obt$ ,  $R_3 = R_4 = R_5 = R_6 = R_8 = R_9 = H$ ,  $R_7 = OAc$
20.  $R_1 = OPoc$ ,  $R_2 = OBz$ ,  $R_3 = R_4 = R_5 = R_6 = R_8 = R_9 = H$ ,  $R_7 = OAc$
21.  $R_1 = R_2 = OAc$ ,  $R_3 = OH$ ,  $R_4 = Omp$ ,  $R_5 = R_6 = R_8 = H$ ,  $R_7 = R_9 = OFu$
22.  $R_1 = R_5 = OAc$ ,  $R_2 = R_9 = Omp$ ,  $R_3 = R_4 = OH$ ,  $R_6 = R_7 = H$ ,  $R_8 = OBz$
23.  $R_1 = R_4 = R_6 = OAc$ ,  $R_3 = OH$ ,  $R_5 = R_8 = H$ ,  $R_2 = R_9 = Omp$ ,  $R_7 = OFu$
24.  $R_1 = R_4 = OAc$ ,  $R_2 = R_3 = R_5 = R_8 = R_9 = H$ ,  $R_6 = OCm$ ,  $R_7 = OBz$
25.  $R_1 = R_4 = R_6 = OAc$ ,  $R_2 = R_3 = R_5 = R_8 = R_9 = H$ ,  $R_7 = OBz$
26.  $R_1 = R_4 = R_5 = R_9 = OAc$ ,  $R_2 = R_3 = R_6 = R_7 = H$ ,  $R_8 = OBz$
27.  $R_1 = R_4 = R_9 = OAc$ ,  $R_2 = R_6 = R_8 = H$ ,  $R_3 = OH$ ,  $R_5 = R_7 = OFu$
28.  $R_1 = OFu$ ,  $R_2 = R_3 = R_4 = R_6 = R_8 = H$ ,  $R_5 = R_7 = R_9 = OAc$

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### 参 考 文 献

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