

乌苏里风毛菊中两个新三萜酯的结构确定

丰加涛¹, 师彦平^{1,2*}

¹兰州大学, 功能有机分子化学国家重点实验室, 兰州 730000; ²中国科学院兰州化学物理研究所, 甘肃省天然药物重点实验室, 兰州 730000

E-mail: shiyyp@lzb.ac.cn

菊科风毛菊属植物是重要的药用植物。乌苏里风毛菊在传统中药中具有重要的药用价值。为了发现具有抗肿瘤活性的萜类化, 对采自甘肃的乌苏里风毛菊进行了系统的化学成分研究, 结果从其全草中分离获得了两个新的三萜酯类, 并采用 1D-和 2D-超导核磁共振谱 (NMR) 和高分辨质谱 (HR-ESI-MS), 以及紫外和红外光谱等确定了它们的结构分别为: 乌苏烷-9(11), 12-二烯-1 β , 3 β -二醇-3-棕榈酸酯 (1) 和齐墩果烷-9(11), 12-二烯-1 β , 3 β -二醇-3-棕榈酸酯 (2)。

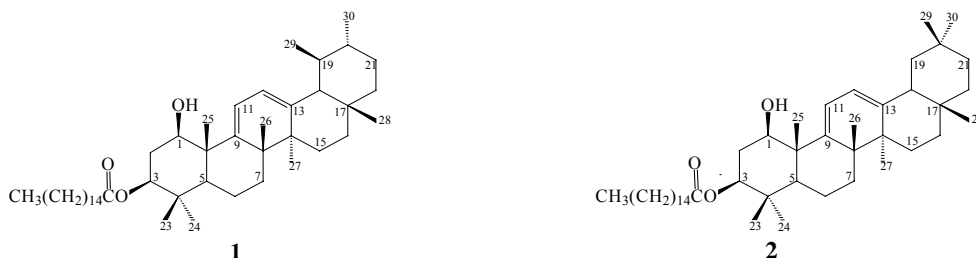


Fig. 1 Structures of compounds 1 and 2

关键词: 乌苏里风毛菊; 菊科; 三萜类; 齐墩果烷型; 乌苏烷型。

参考文献:

[1] C. Shih, S. Y. Jin, *Flora Reipublicae Popolaris Sinicae*, Science Press, Beijing, **1999**, 78(2), 173.

基金项目: 国家自然科学基金资助项目, 编号: 20021001, 20372029 和 20475057。

Two New Triterpenoids from *Saussurea ussuriensis*

Jia-Tao Feng¹, Yan-Ping Shi^{1,2*}

¹ State Key Laboratory of Applied Organic Chemistry, Lanzhou University, Lanzhou 730000; ² Key Laboratory for Natural Medicine of Gansu Province, Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences, Lanzhou 730000

The genus *Saussurea* consists of about 400 species distributed throughout Asia and European. *S. ussuriensis* (Composite) is a perennial herb mainly distributed in northwestern of China. Its rhizome has been used as a folk remedy for the treatment of cold, headache, arthritis and strain, and its chemical constituents have not been previously investigated up to now. In order to find active principles, the chemical constituents of *S. ussuriensis* were studied and two new triterpenoids were isolated from an alcoholic extract of this species. Their structures were elucidated as Ursa-9(11), 12-dien-1 β , 3 β -diol-3-palmitate (**1**) and Olean-9(11), 12-dien-1 β , 3 β -diol-3-palmitate (**2**) by spectroscopic methods including intensive 2D NMR techniques (gCOSY, gHMOC, gHMBC for **1**) and HR-ESI-MS.