

ORAL PRESENTATIONS

A NEW GUAYANOLIDE SESQUITERPENE LACTONE FROM *Ferula kokanica*

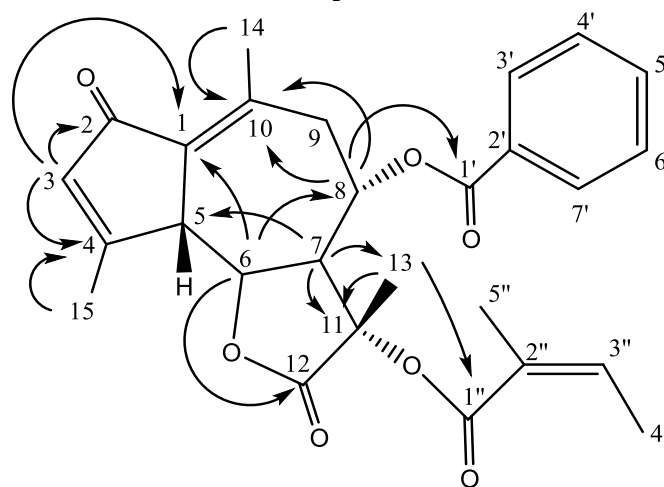
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We studied the roots of *Ferula kokanica* Regel & Schmalh, collected in the Kashkadarya region during the flowering period. 2 kg of roots were extracted with 96% alcohol, the extract was concentrated under vacuum using a rotary evaporator, and 500 g of total extractive substances were obtained. Of this amount, 50 g were taken and separated by column chromatography on silica gel KSK, eluting with a mixture of petroleum ether and ethyl acetate (25:1-1:1). With the 8:1 system, a new sesquiterpene lactone was isolated as white crystals, composition $C_{27}H_{28}O_7$, Mm, m/z 464, mp 147°C, named kokonolide [1].

Kokonolid is a white powder. In the UV spectrum of the compound (MeOH, λ_{max} nm: 202.77) characteristic maxima for terpenoid derivatives are observed. In the IR spectrum of the substance there are absorption bands at ν_{max} cm⁻¹ 2924.39, 2854.70 (CH₂ – group) and 1790.07 (carbonyl from the lactone ring), 1708.66 (a,b-unsaturated ester), 1689.79 ((a,b-unsaturated ketone), 1640.67, 1615.51 (C=C).

The interpretation of the ¹H and ¹³C NMR spectra was carried out on the basis of data from HSQC, HMBC, and NOESY experiments.



Thus, according to the obtained data, coconolide is a new sesquiterpene lactone of the guaianolide type [1] and has the structure 2-oxo-8a-benzoyloxy-11 α -angeloyloxy--5bH,6bH,7bH-guai-1(10),3(4)-dien-6,12-olide.

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References:

1. Mehrdad Iranshahi, Seyyed Tahmineh Hosseini, Ahmad Reza Shahverdi, Kamyar Molazade, Saleha Suleman Khan, Viqar Uddin Ahmad. *Phytochemistry* 69, 2753 (2008).