

# Highly oxygenated sesquiterpenes from the aerial parts of *Artemisia alba* Turra

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*Artemisia alba* Turra (*Artemisia*, Asteraceae) is widespread in the southern and south-eastern parts of Europe – Spain, Italy and Balkan peninsula [1]. The aerial parts of *Artemisia alba* Turra have been traditionally utilized as a stomach digestive and tonic in the form of a decoction [2]. The literature survey revealed few reports concerning the non-volatile components of this species: santonin, nerolidol derivatives and artalbic acid were isolated from the aerial parts, whereas the roots were shown to contain a sesquiterpene-coumarin ether [3].

The aerial parts of the commercial cultivar *Artemisia alba* Turra were initially defatted with hexane and then extracted with chloroform and methanol subsequently. Further CC and PTLC purification of the chloroform extract resulted in the isolation of 10 new compounds with germacrane, oplopane, eudesmane, guaiane and bisabolane carbon skeletons. Their structures were elucidated by NMR spectroscopy (<sup>1</sup>H-NMR, <sup>1</sup>H-<sup>1</sup>H COSY, HSQC, HMBC, NOESY) and MS. It was found that the isolated compounds are highly oxygenated and contained 2-5 oxygen-bearing functions (OH, OOH, and OAc). The main components were germacrane derivatives with C-10 exomethylene group and C-3 and C-9 substituted positions. Additional oxygenated positions were C-1, C-2, C-4 or C-12 carbons. The dominant component among the isolated compounds was 1-hydroperoxy-3-hydroxy-9-acetoxy-germacra-5, 10(14)-diene.

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