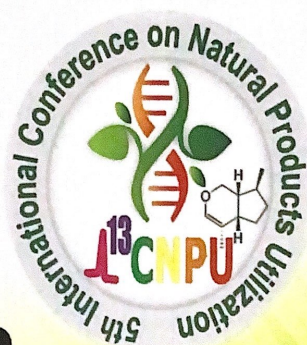


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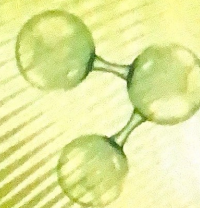
FROM PLANTS TO PHARMACY SHELF

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BOOK OF ABSTRACTS



SL 8

LC-HRESI-MS TECHNIQUE AS THE BEST CHOICE FOR RAPID SCREENING OF SECONDARY METABOLITES OF *EUPHORBIA PALUSTRIS* LATEX EXTRACT

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The genus *Euphorbia* represents one of the largest and most diverse plant genera. Plant species of this genera are a rich source of biologically active compounds. Our previous investigation of *E. palustris* L. revealed an excellent anti-melanoma activity of 3 β -benzoyloxy-13 α -dodecanoyloxy-ingenerol (**1**), and 3 β ,13 α ,17-tribenzoyloxy-ingenerol (**2**), significantly better than ingenerol-mebutate (Picato[®]), a commercial anti-melanoma agent approved by the U.S. Food and Drug Administration (FDA) and by the European Medicines Agency (EMA) for the topical treatment of actinic keratosis [1]. Hence, in this research, using liquid chromatography–electrospray ionization mass spectrometry, chloroform-methanolic extracts of two samples of *E. palustris* collected at different localities in Serbia were analysed in order to confirm the presence of **1**.

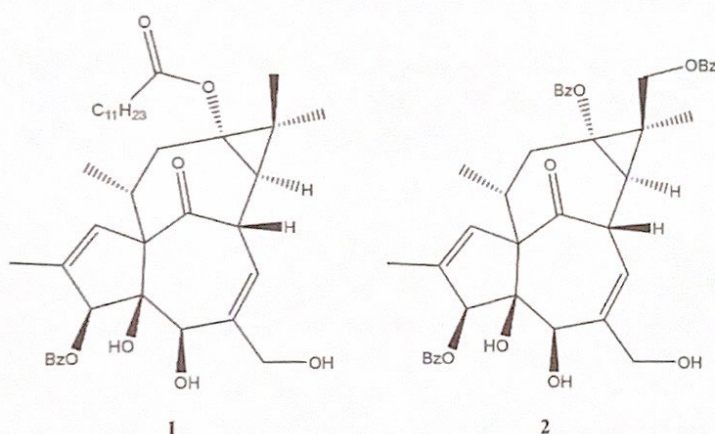
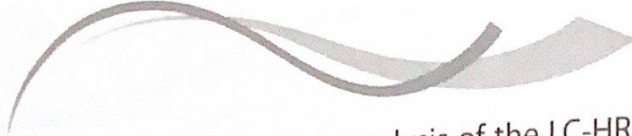


Figure 1. Structures of compounds **1** and **2**



Based on the tentative analysis of the LC-HRESI-MS and the previous examination of this plant species, ingenanes **1** and **2** were confirmed in both extracts examined. Additionally, both extracts contained several metabolites that structurally corresponds to ingenol, with a decanoyl group in their structure. Based on these preliminary results, our goal in further investigation is to isolate other ingenane molecules and test their anti-melanoma activity.

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References:

[1] Krstić G, Jadranin M, Jovanović Stojanov S, Pešić M, Tešević V, Milosavljević S (2022) Anti-melanoma effects of ingenanes isolated from *Euphorbia* species, Macedonian Pharmaceutical Bulletin 68: 23-24.