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BOOK OF ABSTRACTS

(ed. Judit Hohmann)

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Chemical composition and antiproliferative properties of *Peganum harmala*

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Peganum harmala (Nitrariaceae) is a perennial shrub native to the Middle East, Central Asia, and Northern Africa, has a long history of traditional use for therapeutic and spiritual purposes [1]. This plant contains fatty acids [2], macro- and microelements [3], amino acids [4], and essential oil [1]. The present work deals with β -carboline alkaloid and triterpenoid content, and antiproliferative effects of *P. harmala*.

As a result of the analyses, two triterpenoids, which are new in this species and harmine, harmaline, harmol, vasicinone alkaloids were isolated from *P. harmala* roots. The quantitative parameters of harmine, harmaline and harmol were determined in the ethanolic and aqueous extracts of different organs of the plant, such as root, stem, flower, seed and capsules. At the same time, antiproliferative effects of the aqueous extracts and alkaloids were studied using HeLa, SiHa, C33-A, MCF-7, MDA-MB-231, A2780, NIH/3T3, UPCI-SCC-131 and UPCI-SCC-154 cell lines.

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