



TANSHINONE COMPOSITIONS IN WILD GROWING *SALVIA XANTOCHEILLA*
BOISS. OF IRAN

Marziyeh Fotovvat^{1,3*}, Tayebeh Radjabian¹, Azra Saboora²

¹Department of Biology, Faculty of Basic Sciences, Shahed University, Tehran, Iran

²Department of Plant Sciences, Faculty of Biological Sciences, Alzahra University, Tehran, Iran

³Department of Plant Sciences, Faculty of Biological Sciences, Kharazmi University Tehran, Iran
E-mail: m.fotovvat1@yahoo.com

Genus *Salvia* is one of the largest members of the Labiatae family, comprising more than 900 species, many of them collected from the wild and a few of them cultivated [1]. Over 58 species of the genus *Salvia* are found in Iran, 17 of which are endemic [2]. It has been reported that tanshinones are the most abundant and important bioactive compounds in the roots of some *Salvia* species [3]. Tanshinones, abietane-type norditerpenoidquinones, have been shown to exhibit diverse pharmacological activities, including anti-platelet, cardioprotective, antibacterial, antioxidant, antidiabetes, anti-cancer and anti-inflammatory effects [3,4]. This study was focused on identification and determination of some tanshinones in the extracts of roots of *S.xantochella* present in Iranian flora by HPLC and LC-MS methods. Based on our results, there were tanshinone I, tanshinone IIA and cryptotanshinone in the roots of *S.xantochella*. This is the first report about tanshinone composition of extract of *S. xantochella* and also the first report of these compositions in Iranian *Salvia* species. The natural occurrence of these compounds can be conclusive for the chemotaxonomic characterisation of this genus. In conclusion, some Iranian *Salvia* species could be introduced as new potent sources of rosmarinic acid and its derivatives. In the end, the roots of *S. xantochella* could be introduced as new potent sources of tanshinone and its derivatives and also potent natural sources for medicinal, food and industrial purposes.

References

- [1] Ebrahimabadi, A.H.; Mazoochi, A.; Kashi, F.J.; Djafari-Bidgoli, Z.; Batooli, H. *Food and Chemical Toxicology*, **2010**, *48(5)*: 1371-1376.
- [2] Mozafrarian, V.A. *Farhang Moaser*, **1996**. 477.
- [3] Wang, B.Q. *Journal of Medicinal Plants Research*, **2010**, *4(25)*: 2813-2820.
- [4] Zaker, A.; Sykora, C.; Gössnitzter, F.; Abneshamchi, P.; Asili, J.; Mousavi, S.H.; Wawrosch, C. *Industrial Crops and Products*, **2015**. *67*: 97-102.