

## The HPLC analysis of Iranian pomegranate (*Punica granatum*) seed oil phytosteroids

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**Background and Aims:** *Punica granatum* is small tree, belonging to the puniceae family. Pomegranate is grown mainly in Iran, India and the USA, but also in most Near and Far East countries. The oil that extracted from seeds (PSO) was mentioned that had many effects in Iranian traditional medicine.

**Methods:** the oil that is extracted from seeds that collected of different part of Iran. In HPLC analysis, an isocratic elution method using 35% aqueous acetonitrile solution at 1.0 ml/min with photodiode-array (PDA) detection at 225 nm and 254 nm was found to optimally separate and identify the steroid hormones from the pomegranate samples with a run time of less than 30 min. the type of column of HPLC was revers and exactly C18 column was used.

**Results:** Estrone was detected but testestorn and estradiol as same as standard retention time was not detected.

**Conclusions:** This paper described the identification and re-evaluation of several steroid hormones analysis in PSO using HPLC-PDA and showed that could be good replacement for chemical drugs. The estrone is one of important phyto-estorogen that pomegranate seed oil is rich source of these hormones.

**Keywords:** Pomegranate seed oil; PSO; *Punica granatum*; Esteroids