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## Determination of water-soluble vitamins in commercial frozen artichoke hearts by high performance liquid chromatography (HPLC)

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Fruits and vegetables contain a large amount of water-soluble vitamins (WSVs) which play a pivotal role in metabolic processes such as Krebs cycle, fatty acid synthesis, glycolysis, etc. Nowadays the dietary assumption of vitamins can be increased assuming multivitamin dietary supplements but regular consumption of fresh or unprocessed fruits and vegetables should be preferred. Foodstuff processing can affect the vitamin content of natural sources and analytical methods for qualitative determination of vitamins in food samples are requested. The simultaneous determination of water-soluble vitamins (WSVs) by High Performance Liquid Chromatography (HPLC) has been achieved in different modalities including Reversed Phase chromatography (RP-HPLC) mainly conducted by using C18- and alchilamidic-stationary phase and by Direct Phase chromatography (DP-HPLC). Different methods were developed for the extraction and analysis of WSVs in dietary supplements or natural complex extracts while their simultaneous determination in artichokes (*C. cardunculus subsp. scolymus (L) Hegi*) seems not to be reported yet.

### Biography

Enrico Serni achieved his 1st PhD degree in 2012 dealing with method development of extraction and analysis procedures of biologically interesting molecules in natural complex extracts. After his first graduation in Pharmaceutical Chemistry and Technology (2003), he attended several courses and summer schools on phytochemistry, pharmaceutical analysis and food chemistry and produced different works on determination of natural compounds by modern chromatographic techniques (GC, HPLC, CE, HP-TLC, OPLC) with different presentations and publications on international press. At present, he is performing research on vitamins and thyroid hormones by high performance liquid chromatography-tandem mass spectrometry (HPLC-MS-MS).

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