

Storage Conditions of Olive Leaf Extract: Effect on Oleuropein Stability

Elaf Abdelillah Ali Elhussein and Selin Şahin
Istanbul University, Turkey

Olive leaf is considered as a rich source in photochemical compounds such as oleuropein, hydroxytyrosol, verbascoside, luteolin-O-7-glucoside, apigenin-O-7-glucoside, gallic acid, rutin and ligstroside [1]. These compounds have pharmacologic and health-promoting properties including antioxidant, anti-inflammatory, antiarrhythmic, antiallergic, analgesic, antimicrobial and anticancer. Phytochemical components are too sensitive to the surrounding conditions like light, temperature, and humidity. These parameters must be taken into consideration in packaging and storage operations of pharmaceuticals [2,3]. In the current study, we investigated the effect of light on the concentration of the total /individual phenolic contents and antioxidant activities for olive leaves ethanolic extracts. The decreasing in the concentration of phenolic contents in extracts of natural products was indicated by the decreasing in the ability to inhibit the activity of free radicals of DPPH solution. The examined appropriate parameters of ultrasonic-assisted extraction (UAE) method were applied to prepare ethanolic extracts.

References:

1. Sumbul S, Ahmad MA, Asif M, Akhtar M (2011) Role of phenolic compounds in peptic ulcer : An overview. *Food Chemistry* 3: 361–368.
2. Stamatopoulos K, Katsoyannos E, Chatzilazarou A (2014) Antioxidant Activity and Thermal Stability of Oleuropein and Related Phenolic Compounds of Olive Leaf Extract after Separation and Concentration by Salting-Out-Assisted Cloud Point Extraction. *Antioxidants* 80: 229–244.
3. Longo E, Morozova K, Scampicchio M (2017). Effect of light irradiation on the antioxidant stability of oleuropein. *Food Chemistry* 237: 91–97.

Biography:

Elaf Abdelillah Ali Elhussein got a Bachelor's degree in chemical engineer (University of Science and Technology, Sudan, 2013). In 2014, she went to Turkey for continue her education journey in Istanbul University. Her interested research area: Food processing by-products, Phytochemical compounds, Separation processes. In 2017, she joined two scientific research projects "Investigation of Stability of Olive Leaf Extract's Phenolic Profile" through PAB/İÜ and "Investigation of Graphene Oxide as a Highly Selective Adsorbent for the Recovery of Biophenols Rich in Hydroxytyrosol from Olive Mill Wastewaters: Equilibrium and Kinetic Models" through TÜBİTAK. She also participated in 12 international conferences in Turkey and Italy. Currently, she is developing the thesis approach with her supervisor Assoc.Prof. Selin Şahin.