

عنوان مقاله:

Comparison of Extraction Techniques for Quercetin from Onion Skin: A Review

محل انتشار:

اولین کنگره و نمایشگاه بین المللی علوم و تکنولوژی های نوین (سال: 1397)

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خلاصه مقاله:

Quercetin, one of the most well-known flavonoids, has been included in human diet for a long history. Flavonoids are mostly concentrated in the skin of onions rather than in the edible portion of the onion. HPLC analysis showed that onion skin is rich in quercetin has a range of antioxidative properties. Subcritical water extraction (SCWE) is a modern extraction technique that provides a number of advantages compared with traditional solvent extraction methods. Quercetin is yellow powder that can be efficiently extracted from vegetables such as onion by using subcritical water extraction (SCWE). Recently, several techniques have been reported in the literature to extract bioactive compounds from onion skin. These include solvent extraction, microwave-assisted extraction and ultrasound-assisted extraction. However, these techniques are time-consuming and inefficient. But subcritical water extraction (SCWE) is an environmentally friendly process that is increasingly used as an alternative to traditional extraction methods such as solvent extraction. Comparison of SCWE with conventional solvent extraction using ethanol also showed that subcritical water can be an excellent substitution for organic solvent when extracting bioactive compounds from onion skin. This review focuses on comparison of extraction techniques of the bioactive components from onion skin in .treatment of cancers

کلمات کلیدی:

Anti-cancer, Quercetin, Onion skin, Subcritical water extraction

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