Vol.2 No.2

Essential oil percentage of celery and parsley and their components as affected by method extraction

Mohammed Sayed Aly Mohammed

National Research Center, Egypt

Celery is part of the Apiaceae family, which includes carrots, parsnips, parsley, and celeriac. Its crunchy stalks make the vegetable a popular low-calorie snack, and it may provide a range of health benefits. The fiber in celery can benefit the digestive and cardiovascular systems. Celery also contains antioxidants that may play a role in preventing disease. The nutrients in the celery plant and its seeds may provide a range of health benefits. It is worth remembering, however, that these nutrients occur in relatively small amounts in celery. Eating celery alone is not likely to prevent or cure any disease. Celery contains a plant compound called apigenin, which plays a role in traditional Chinese medicine as an anti-inflammatory, antibacterial, antiviral, and antioxidant agent. It may also have properties that help combat cancer. According to some highly eminent researchers, lab tests have shown that apigenin may contribute to apoptosis, a kind of programmed cell death, which could make it useful as a cancer treatment. In 2015, researchers behind a study in mice concluded that apigenin and apigeninrich diets reduced the expression of certain inflammatory proteins. In this way, these substances may reduce inflammation and restore the balance of the immune system. Celery contains a flavonoid called luteolin. The authors of an article published in 2009 suggested that luteolin may have anticancer properties — it may help prevent the spread of cancer cells and induce cell death. They proposed that luteolin may make cancer cells more susceptible to attack by chemicals in treatments. On the other hand, Parsley is a popular herb often used in American, European, and Middle Eastern cooking. It's commonly used to elevate the flavor of dishes like soups, salads, and fish recipes. Two tablespoons (8 grams) of parsley provide Vitamin A - 12% of the Reference Daily Intake (RDI), Vitamin C: 16% of the RDI, Vitamin K: 154% of the RDI. Parsley is low in calories yet rich in important nutrients, such as vitamins A, K, and C. Vitamin A is an essential nutrient that plays a key role in your immunity and eye health. Plus, it's important for your skin and may improve skin conditions, such as acne. Celery essential oil percentage as given insignificant effect according to the two used methods, meanwhile parsley essential oil percentage appeared significant values, and the main components of the two plants were decreased with extracted by evaporator, (limonene of celery and myristicin of parsley). Limonene is a colorless liquid aliphatic hydrocarbon

classified as a cyclic monoterpene, and is the major component in the oil of citrus fruit peels. The D-isomer, occurring more commonly in nature as the fragrance of oranges, is a flavoring agent in food manufacturing. Limonene is a popular additive in foods, cosmetics, cleaning products, and natural insect repellants. For example, it's used in foods like sodas, desserts, and candies to provide a lemony flavor. Limonene is extracted through hydrodistillation, a process in which fruit peels are soaked in water and heated until the volatile molecules are released via steam, condensed, and separated. Due to its strong aroma, limonene is utilized as a botanical insecticide. It's an active ingredient in multiple pesticide products, such as ecofriendly insect repellents. Other household products containing this compound include soaps, shampoos, lotions, perfumes, laundry detergents, and air fresheners. Additionally, limonene is available in concentrated supplements in capsule and liquid form. These are often marketed for their supposed health benefits. This citrus compound is also used as an aromatic oil for its calming and therapeutic properties. While Myristicin is a naturally occurring compound found in common herbs and spices, the most well known being nutmeg. It is an insecticide, and has been shown to enhance the effectiveness of other insecticides in combination. The nerves that are blocked are those responsible for controlling the movement of muscles present in the gut, urinary tract, lungs, and other parts of the body. If they are working incorrectly, this can lead to disorders such as gastritis, diarrhoea, cystitis, asthma, bronchitis, etc.. Thus, preventing the nerves firing can alleviate the symptoms of some of these ailments. Indeed, many folk remedies recommend taking nutmeg oil for nausea, stomach upsets, indigestion, or even toothache. Although none of these 'remedies' are medically proven, nutmeg oil is used in some cough syrups and as a natural food flavouring in baked goods, beverages (e.g. Coca Cola) and sweets. The results showed that Limonene was decreased from 71.32% with hydro distillation to 42.04% with evaporator hydro distillation, myristicin was lower from 77.58% to 53.69% according to the previously methods. Monoterpene hydrocarbons were decreased in two plants with evaporator hydro distillation, but oxygenated compounds were increased and the decrease was very low in both two plants, meanwhile sesquiterpene hydrocarbons cleared decrease in celery and increase in parsley.