

味認識装置を用いた精油類の化学的品質評価

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Quality evaluation of essential oils by a taste-sensing system

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Abstract

Recently, it has been recognized effectiveness and functionality of aromatherapy, a natural holistic approach to therapy using essential oils and other plant extracts. Many common essential oils have been used for such as perfume materials, flavor ingredients and antiseptic purposes since ancient times and are still widely used today. Essential oils are registered in "The Japan's Specifications and Standards for Food Additives" mainly used as bitter substances and anti-oxidants, and also seven essential oils are registered in "The Japanese Pharmacopoeia Sixteenth Edition".

In this study for development of a new method for the quality evaluation of essential oils, we investigated the profile analysis of 16 kinds of essential oils by a taste-sensing system. As the results, 16 kinds of essential oils were classified mainly into 5 types by the taste distributions. Furthermore, we purchased commercial clove and thyme oils, both of which showed high taste intensities in "anionic bitterness" and investigated the relationship between their anionic bitterness intensity and the amounts of the main constituents, namely eugenol and thymol for clove and thyme oils, respectively. In consequence, as clove oils, the "anionic bitterness" intensities of eight samples were approximately the same as those of the corresponding standard samples of eugenol. As for the remaining three samples, more than 70% of the "anionic bitterness" intensity was attributed to eugenol content. These data strongly suggest that the "anionic bitterness" taste of clove oil is mostly derived from eugenol. Meanwhile, as thyme oils, no correlation was observed between the "anionic bitterness" intensity and thymol content. This finding suggests that constituents other than thymol may have a larger effect on the anionic bitterness intensity of thyme oil.

Keywords : 精油、味認識装置、味分類、チヨウジ油、タイム油

essential oils, a taste-sensing system, taste classification, clove oil, thyme oil

I 緒言

近年、植物由来の精油成分の香りを利用して心身のトラブルを穏やかに回復させるアロマセラピーの有用性・機能が

認識され始めている。精油とは水蒸気蒸留法や圧搾法により得られる植物に含有する揮発性有機化合物であり、主に香料として使用されている。現在、我が国で使用が認められている食品添加物の天然香料の基原物質リストには600種