

다. 마찬가지로 이 농도범위에서 최적의 추출농도를 확인하고자 각 용매와 농도별로 폐놀성물질을 추출하여 그 함량을 측정된 결과 메탄올에서는 5% 농도차이가 그 추출효율에 유의적인 영향을 주지 않는 것으로 나타났다. 에탄올에서는 40%에서 가장 높은 함량이 측정되었고 아세톤에서는 50%에서 측정되었다. 따라서 시료의 상태와 상관없이 배 과피의 폐놀성물질 추출용매로는 40~70%의 함수 아세톤이 적합한 것으로 사료된다.

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검은비늘버섯(*Pholiota adiposa*)의 향기특성

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검은비늘버섯(*Pholiota adiposa*)의 향기성분을 조사하기 위해 생버섯을 SDE로 추출하여 농축한 후 GC/MS로 정성하였으며 향기특성은 GC/olfactometry를 이용하여 확인하였다. GC/MS로 정성된 화합물은 총 52종이었으며 함량이 높은 화합물로는 hexanal (8.55%), n-heptaldehyde(13.02%), 2-pentyl furan(4.82%), benzeneacetaldehyde (3.34%), (E,Z)-2,4-Decadienal(3.06%), 6,10-dimethyl 5,9-undecadien-2-one(11.75%)이었으며 1-octen-3-ol, 3-octanone, 3-octanol, 2-octanol, 1-octanol 등의 C8화합물이 검출되었다. Sniffing test 결과 주요한 향기특성으로는 burnt odor(843, +++), fresh fruity odor(1-hexanol, ++), fresh mushroom(n-heptaldehyde, +++), mushroom like(1023, +++), refreshing sweet(benzeneacetaldehyde, +) 등으로 나타났다.

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The Packaging and Irradiation Effects on Volatile Compounds of Red Pepper Powder

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The packaging and irradiation effects on the volatile compounds of red pepper powder were investigated. The red pepper powder (*Capsicum annuum*) was prepackaged in vacuum (PE/Nylon film bag), and irradiated with the dose of 0, 3, 5 or 7 kGy at 0°C. The odor of irradiated red pepper powder was classified into 4 groups (0, 3, 5, and 7 kGy) by electronic nose using metal oxide sensors, and the volatile compounds developed by irradiation were analyzed by GC-MS along with solid phase microextraction. Hexanoic acid and tetramethyl pyrazine, which were found in red pepper powder of 0 kGy, disappeared in irradiated red pepper powder. Further, 1,3-bis(1,1-dimethylethyl)-benzene was detected by GC-MS as a new developed volatile compound in irradiated red pepper, and this compound was identified to be originated from packaging material not from red pepper powder. This study showed that off-odor from packaging materials was responsible for the volatiles produced from dried food treated with irradiation.