

## ABSTRACT

Microwave blanching (MB) and hot water blanching (HB) samples of *L.edodes* were first analysed by electronic tongue and then analysed by high performance liquid chromatography (HPLC) for the content of non-volatile flavour components (soluble sugars (mannitol), organic acids, 5'-nucleotides, and free amino acids). The results showed that contents of bitterness and astringency changed markedly ( $p < 0.05$ ) when the blanching conditions were 60 s (HB) and 300 w 90 s (MB), respectively. The contents of non-volatile flavour components in HB samples (60 s) were relatively low, whereas contents in MB samples (300w 90s) were significantly higher ( $p < 0.05$ ) as compared to HB, especially the taste-active amino acids and 5'-nucleotides, which were attributed to the equivalent umami concentration (EUC) values. In addition, the EUC values of MB samples did not differ significantly from the fresh ones, suggesting that MB could effectively preserve the MSG (monosodium glutamate)-like components of *L.edodes* compared to HB.

### KEYWORDS:

- *L.edodes*
- blanching
- non-volatile flavour components
- electronic tongue
- HPLC