Studies on the Formation of Volatile Compounds in the Model Reaction Systems of HEMF and Meat Flavor Precursors

陳宜絹、游銅錫 ; 謝淳仁

E-mail: 9020053@mail.dyu.edu.tw

ABSTRACT

There are many cooking methods for Chinese foods. Stewing and roasting are two of the methods frequently used. The sauce usually used is soy sauce. The stewed and roasted meats are flavorous and delicious. They are the favorites of gourmet. The savor and volatile components in soy sauce will react with the savor precursors in meat. The reaction gives the stewed or roasted meat the special flavor. There are many flavor precursors in meats. The most important ones among them are Xylose, Thiamine · HCl, Cysteine · HCl, etc. While HEMF is the main component presented in soy sauce. The purpose of this study is trying to mix HEMF and Xylose, Thiamine · HCl, and Cysteine · HCl under the similar conditions of roasting and stewing meat. Different heating processes were used to investigate the influence of temperature and heating time to the formation meat flavor. The volatile compounds existed in the model systems were studied. The aim is to study whether or not HEMF will react with Xylose, Thiamine · HCl, and Cysteine · HCl to produce any special and important volatile compounds.

Keywords : Model Reaction Systems ; Cysteine · HCl ; Thiamine · HCl ; HEMF

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