

Headspace Gas Chromatographic Analysis and Sensory Evaluation of Various Domestic and Foreign Commercial Roasted and Ground Coffees

Y.-S. KO, H.-J. BAIK

Dept. of Food & Nutrition, Hanyang University, Seoul, Korea

SUMMARY

Twenty different kinds of roasted and ground coffees, 9 domestic and 11 foreign coffee products, were analysed using a headspace gas chromatographic technique and sensory evaluation. Among many aroma compounds, acetaldehyde, methylformate, diacetyl, 2-methylfuran were detected from 10 samples analysed. Overroasted coffees showed increased amount of 2-methylfuran which may give a harshness to the dark-roasted coffee. For sourness, pH and total acidity were measured and there was a close relationship between roasting degree and sourness, i.e., high sourness samples had low pH and high total acidity. By using a Photovolt colorimeter, a relatively good range of roasting colour for the panellists was about 54. When this colour number became higher, less desirable burnt note was recognised. The average roasting colour of the foreign coffee was 54 and that of the domestic coffee was 47. This indicates the domestic coffees was stronger in roasting degree.