

# **A New “Aroma Index” to Determine the Aroma Quality of a Blend of Roasted Coffee Beans**

**C. SANZ, L. PASCUAL, M. J. ZAPELENA, M. C. CID**

Departamento de Bromatología, Tecnología de Alimentos y Toxicología, Facultad de Farmacia, Universidad de Navarra, E-31080 Pamplona, Spain. E-mail: crsanz@unav.es

## **SUMMARY**

The staling of an Arabica 80:Robusta 20 blend was studied over a period of 15 months. Static Headspace-Gas Chromatography-Mass Spectrometry analysis was carried out to identify and quantify eight volatile compounds related to the ageing of coffee: Methanethiol, Thiophene, Propanone, Propanal, 2-Methylfuran, 2-Butanone, 2,3-Butanedione and Hexanal. Sensory analysis was also carried out in order to determine the loss of aroma freshness of coffee during storage. The areas of identified compounds followed the linear regression model with significance correlation coefficients in relation to aroma freshness. In order to avoid the possible effects of test conditions on results, seven new aroma indexes including methanethiol were established, obtaining high linear correlation coefficients with the aroma freshness of coffee. Five of our new aroma indexes presented excellent linear correlation coefficients ( $r > |0.75|$ ) and one of them, Methanethiol/2-butanone, was  $r > |0.9|$ .