

Characterization of Free Amino Acid Enantiomers of Arabica and Robusta Coffee Varieties

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SUMMARY

This work represents an attempt to use the free amino acid enantiomers in coffee discrimination. For the purpose an extraction method was validated using extraction with sulphosalicylic acid followed by isolation by solid phase extraction on strong cation exchange columns. The amino acids were derivatised to their N-ethoxycarbonyl esters and analysed by gas chromatography, with FID detection, on a Chirasil L-Val column.

Multivariate analysis applied to the chromatographic data show that free amino acids can be used as a tool for discrimination problems between coffee varieties. There is also some evidence that probably they can also be used for discriminating between different processing techniques, although more work has to be done in this respect.