

Raman Spectroscopy as a New and Rapid Method for Green and Roasted Coffee Traceability

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SUMMARY

Coffee authenticity has always been a challenging problem for the analysts, who have to discover adequate procedures to detect different forms of adulteration. The price paid for coffee depends on coffee varieties(arabica/robusta), the processing conditions (dry/wet) and the altitude where coffee is grown. High Grown arabica is considered of better quality and is the most expensive. It is sold at 2-10 times the price of robusta (according to their geographical origin). Consumers are increasingly willing to pay a higher price for coffee produced in socially and environmentally responsible ways, and in reputable appellations or high altitude. They want to know the origin and the conditions where coffee is grown and to be in position to make informed choices about their coffee. A continuing demand exists for rapid, inexpensive and effective techniques for authenticity of coffee. Raman spectrometry combined with chemometric techniques have been studied for this purpose and can be an alternative rapid analytical method for quality control of coffee.