

Discrimination between Defective and Non-Defective Coffee Beans Using a Laser Prism Spectrometer

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Abstract : The concentration- and temperature-dependent refractive indices of solutions extracted from defective and non-defective coffee beans have been investigated using a He-Ne laser. The refractive index has a linear relationship with the presumed concentration of the coffee solutions in the range of 0.5-3%. Higher and lower values of refractive index were obtained for immature and non-defective coffee beans, respectively. The Refractive index of bean extracts can be successfully used to separate defective from non-defective beans.

Keywords : coffee extract, refractive index, temperature dependence

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