

Title Classification of longan fruit bruising using visible spectroscopy
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Abstract

This research showed the potential of using visible spectroscopy for classification of non-bruised and bruised longan fruits. The visible spectra of bruised and non-bruised longan fruits were acquired from 400 to 700 nm with 10 nm resolution by the spectrophotometer. The principal component analysis (PCA), Partial Least Square Discriminant Analysis (PLS-DA) and Soft Independent Modeling of Class Analogy (SIMCA) were used to develop classification models. The Partial Least Square Discriminant Analogy (PLS-DA) showed better classification accuracy than SIMCA with 100% correctness. The result was found to be helpful for the application in the industry for on-line and portable application.