

Title Vis/NIR soluble solids prediction in intact oranges (*Citrus sinensis* L.) cv. Valencia Late by reflectance

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Abstract

A commercially available instrument of near infrared spectroscopy, equipped with a post-dispersive reflectance configuration, was used for the development of partial least squares calibration models for soluble solids content and total acidity prediction in oranges (*Citrus sinensis* L.) cv. Valencia Late. Both internal validation and external validation were conducted and modified partial least squares regression was also tested. The best model for soluble solids content had $1-VR = 0.85$, $R^2_c = 0.91$ and $SECV = 0.51$ in the internal validation, showing $RMSEP = 0.51$ in the external validation exercise. For TA and pH, the accuracy of the models developed was unacceptable.