Abstract

In this paper, the piecewise direct standardization method (PDS) has been used to transfer near-infrared calibration models for the soluble solids content of apple developed for one spectrophotometer to another. The spectra were collected on three different devices: a Fourier transform (FT) spectrophotometer and two Diode Array (DA) spectrophotometers. The standardization procedure was performed on a first set with 520 Jonagored apples and a second with 1052 Jonagored and Golden apples. The performance of the standardization procedure was evaluated based on their RMSEP values. Far both ,is the RMSEP after carrying out the PDS procedure decreased, indicating an improvement in the prediction of SSC of apples, when spectra were collected on a DA spectrometer (slave) and the calibration constructed based on spectra of the same fruit but collected on a FT spectrometer (master).