Title	Measuring fresh fruit and vegetable quality: advanced optical methods
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Abstract

The principles as well as the instrumentation and data analysis aspects of time-resolved reflectance spectroscopy (novel technique of crop produce quality assessment) are discussed. The absorption and scattering spectra of various fruits (e.g. apple, peach, tomato, and kiwifruit) are reported. Tissue content and structure are investigated by interpreting absorption and scattering spectra by Lambert-Beer and Mie theories, respectively. The applications of the technique, including the monitoring of ripening and identification of defects in intact fruits, are presented. The relationship between time-resolved reflectance and standard mechanical-chemical tests for fruit quality assessment and the possibility of setting an optical quality index are discussed. Related research papers, conference proceedings, and web sites are listed.