

Abstract:

Laser-induced fluorescence spectroscopy (LIFS) was non-destructively used on apples (*Malus x domestica*) which were bruised in the lab. Measurements were carried out before and after bruising. The technique was also used to measure surface browning of freshly-cut banana (*Musa acuminata*, Cavendish sub-group) slices. The results of this study demonstrate the potential of LIFS to non-destructively detect bruising in intact apples by measuring changes in the blue-green and red fluorescence. Surface browning of banana slices was detected by changes in the blue-green fluorescence. These fluorescence changes were obtained before the symptoms were visually observed.