Abstract:

Extraction of volatile compounds from the pulp of mango cultivar Tommy Atkins was undertaken through a simultaneous solvent distillation and extraction process using Likens and Nickerson´s apparatus. Identification of volatile organic compounds was achieved in a system of high resolution gas chromatograph coupled with mass spectrometer. A total of 104 compounds were identified in the pulp of ripe fruit either positively when the mass spectrum and retention index data of the identified compound matched with that of the authentic standard run under identical conditions or tentatively when mass spectrum data and retention index values matched with the NIST (National Institute of Standards and Technology, USA) or other literature data-base. The results present the data on compounds along with their individual area representation in the chromatograms. The major classes of organic compounds identified in the flavor profile of Tommy Atkins fruit were hydrocarbons, esters, terpenes, lactones and aromatic compounds. The principal compounds were 3-carene, ethyl dodecanoate, hexyl hexanoate, methyl hexanoate, geranyl acetate,χ-octalactone, χ-nonalactone, citronellol, carvone, α-ionone, limonene, myrcene, β-phellandrene, terpineol (α and β), toluene, benzaldehyde and (Z)-3-hexen-1-ol.