Title	On-line gas chromatography combustion/pyrolysis isotope ratio mass spectrometry (HRGC-C/P-IRMS) of major volatiles from pear fruit (Pyrus communis) and pear products
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Abstract

Using extracts obtained by simultaneous distillation extraction (SDE) as well as liquid liquid extraction (LLE) of self-prepared juices from pear fruits ($n = 20$) and from commercial pear products (juices, $n = 11$; brandies, $n = 16$; baby food, $n = 8$), on-line capillary gas chromatography–isotope ratio mass spectrometry was employed in the combustion (C) and the pyrolysis (P) modes (HRGC-C/P-IRMS) to determine the $\delta^{13}C_{V\text{-}PDB}$ and $\delta^{2}H_{V\text{-}SMOW}$ values of major pear flavour constituents. In addition to butyl acetate **1**, 1-butanol **2**, hexyl acetate **3**, 1-hexanol **4**, as well as the 'pear esters' methyl *E*,*Z*-2,4-decadienoate **5**, ethyl *E*,*Z*-2,4-decadienaote **6**, and ethyl *E*,*E*-2,4-decadienoate **7**, each originating from the fruit, the $\delta^{13}C_{VPDB}$ and $\delta^{2}H_{V\text{-}SMOW}$ data of commercial synthetic and "natural" (biotechnologically derived) **1**–**7** were determined.