

Supplementary Information

An Appraisal on the Source-to-Sink Relationship in Plants: an Application of Desorption Electrospray Ionization Mass Spectrometry Imaging

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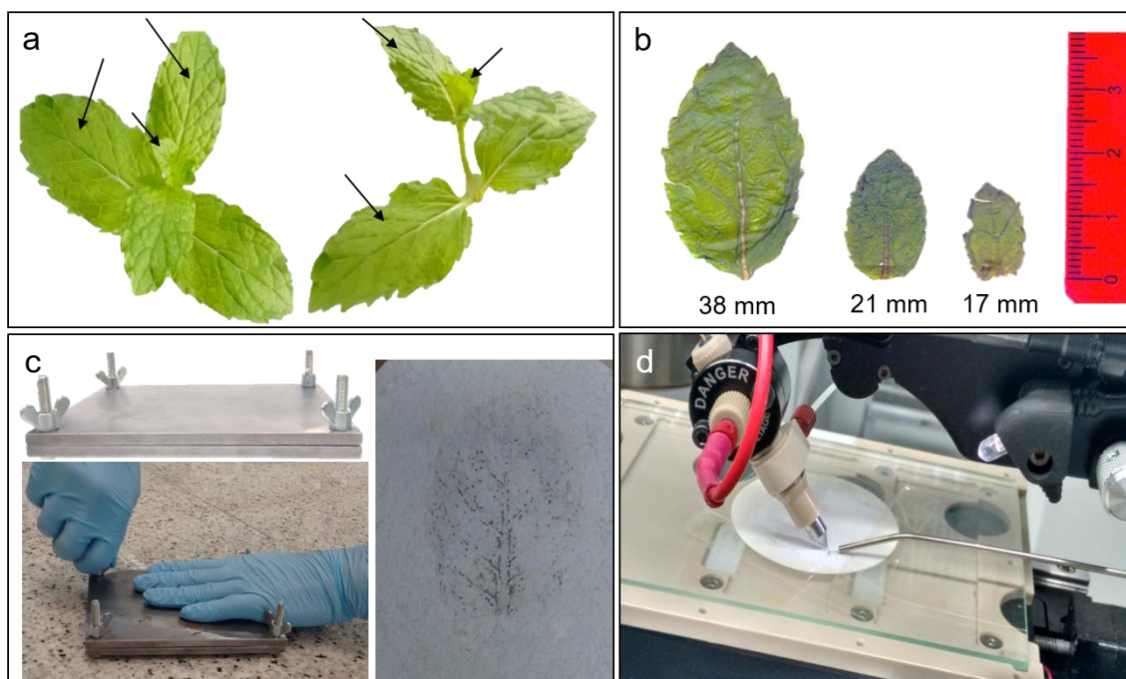


Figure S1. Pictures that show each step employed for the DESI-MSI analysis: (a) optical images of the peppermint shrub; (b) optical images of the leaves at three distinct maturation stages: mature (38 mm), expanding (21 mm) and young (17 mm); (c) the homemade press and the procedure to attain the imprints; (d) sample scanning using the mobile platform and the DESI apparatus.

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53 #1-141 RT: 0.01-0.63 AV: 141 NL: 3.26E5
T: FTMS - p NSI Full ms [100.00-1000.00]

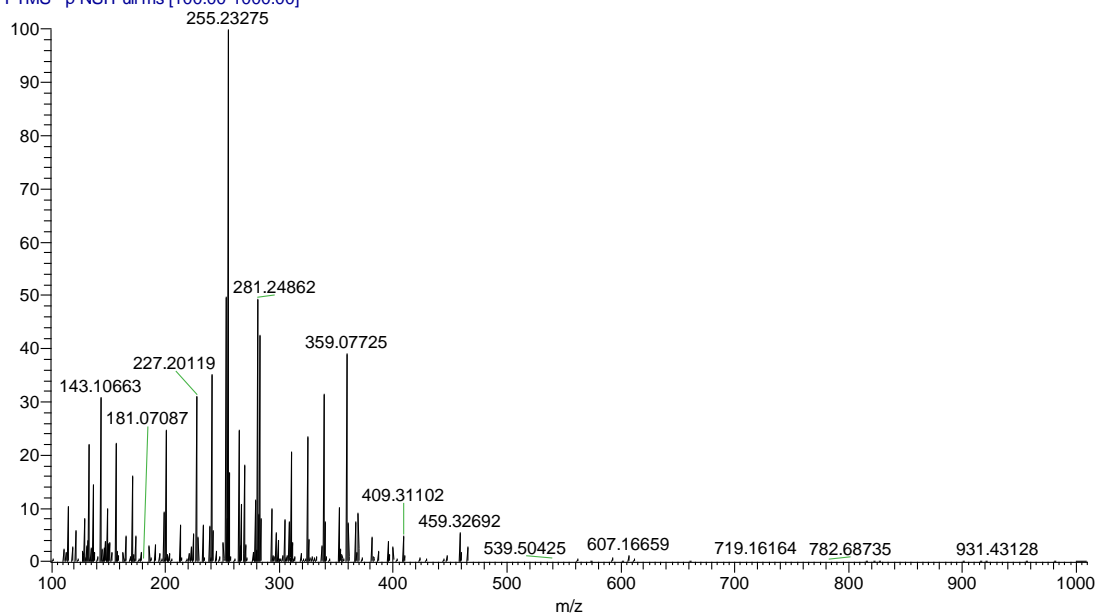


Figure S2. Average of the mass spectra (recorded in the negative ion mode) extracted from line 53 of the young leaf imprinting.

50 #2-143 RT: 0.01-0.64 AV: 142 NL: 4.62E5
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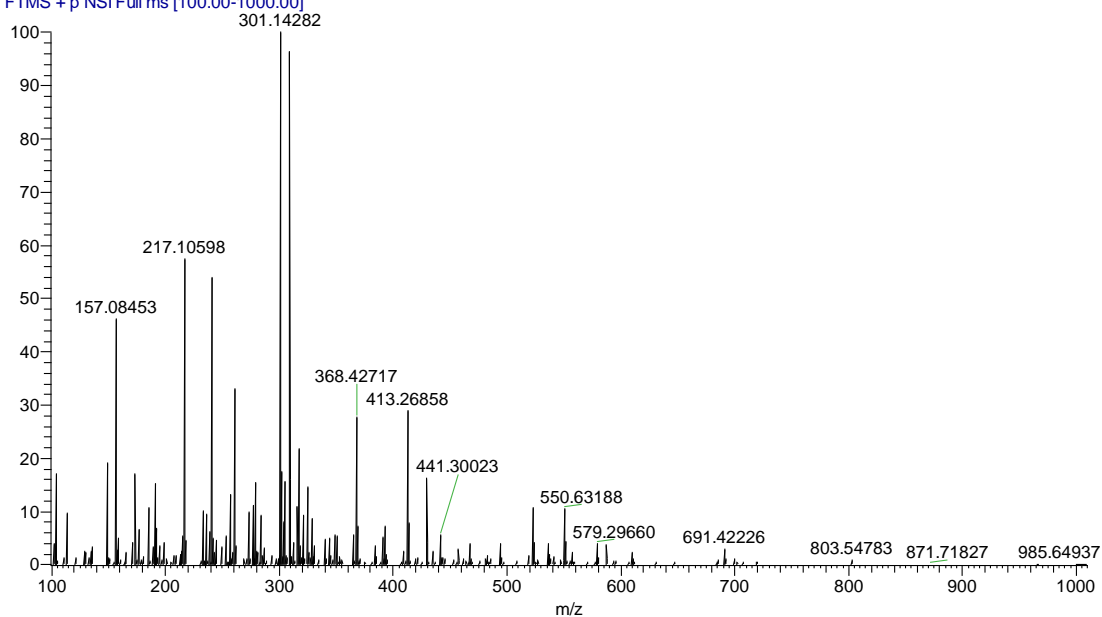


Figure S3. Average of the mass spectra (recorded in the positive ion mode) extracted from line 50 of the young leaf imprinting.

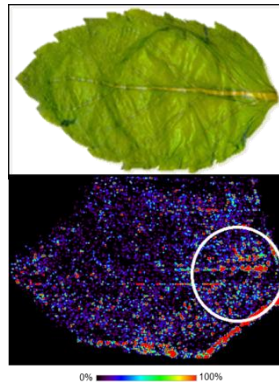


Figure S4. Chemical images without normalization for the [sucrose + K]⁺ ion detected in the imprinting of the peppermint mature leaf. The white circle shows the primary vein where sucrose is concentrated.

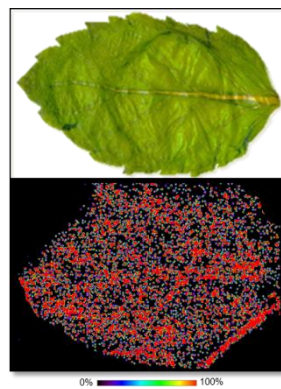


Figure S5. Chemical images without normalization for the mannitol/sorbitol ion detected in the imprinting of the peppermint mature leaf. The red spots clearly indicate the areas of primary and secondary veins.