

## Supplemental Information

Solid Phase Mesh Enhanced Sorption from Headspace (SPMESH) coupled to DART-MS for rapid quantification of trace-level volatiles

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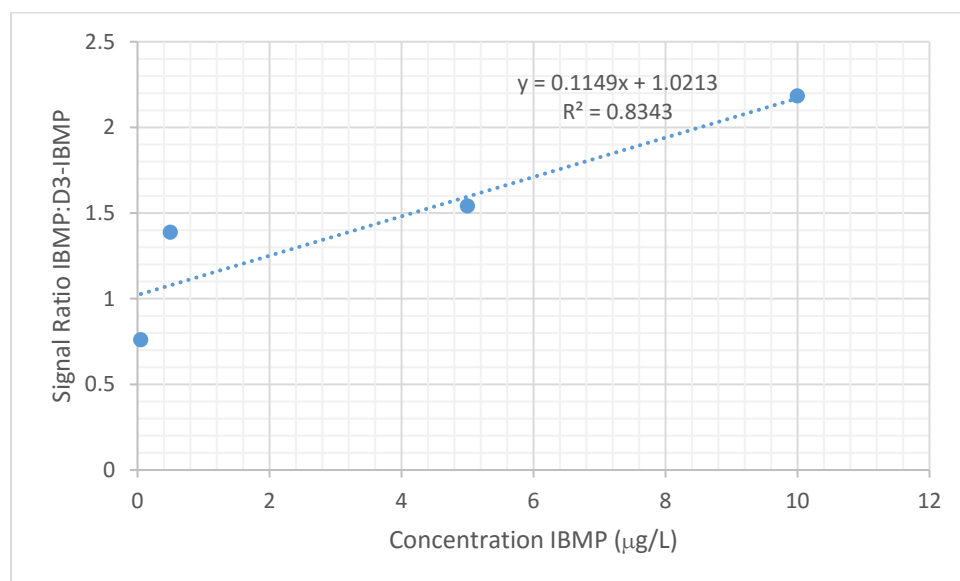
(S-1) Cover page

(S-2) Figure S-1 - IBMP calibration curve by SPME-DART-SVP-Orbitrap, plotted as signal ratio IBMP:D3-IBMP vs. IBMP concentration in water

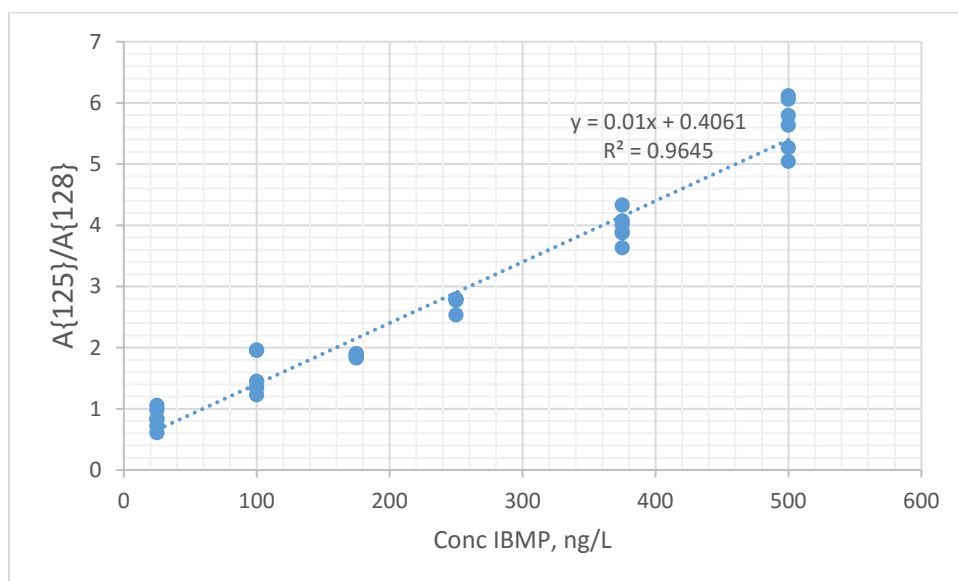
(3) Figure S-2a. IBMP calibration curve by SPMESH-DART-MS/MS, plotted as signal ratio IBMP:D3-IBMP vs. IBMP concentration in water. S-2b. Linalool calibration curve by SPMESH-DART-MS/MS, plotted as signal ratio linalool:D3-linalool vs. linalool concentration in water

(4) Figure S-3. Sample MS/MS chromatogram for SPMESH-DART analysis of linalool ( $m/z$  137.132 to 81) at 500  $\mu\text{g/L}$ , with internal standard D3-linalool ( $m/z$  140.144 to 83). Desorption is occurring during ~0.5-0.8 min

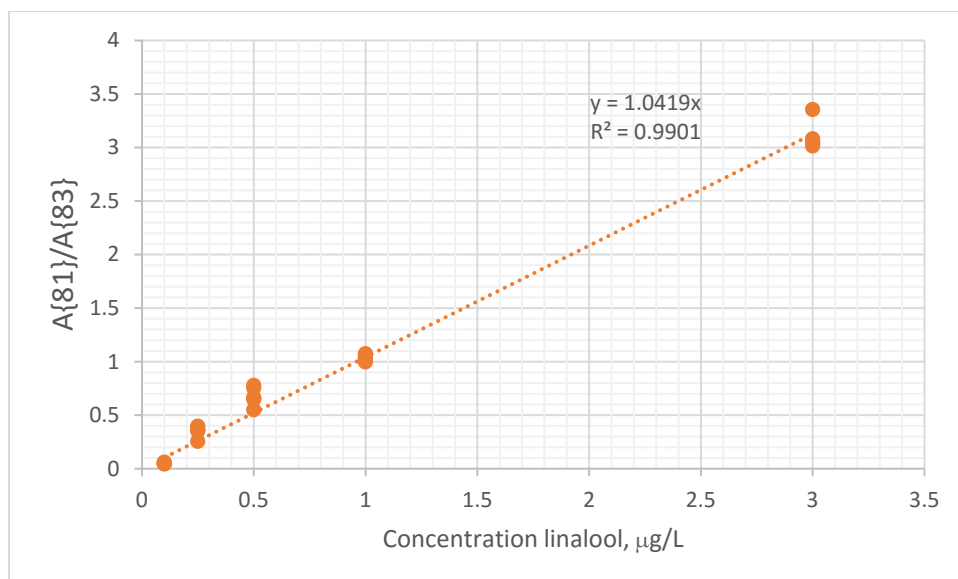
(5) Figure S-4. Sample chromatogram for SPMESH-DART-SVP-HRMS analysis of linalool (top,  $m/z$  137.1326) and internal standard D3-linalool (bottom,  $m/z$  140.1513). Desorption is occurring during ~0.20-0.50 min.



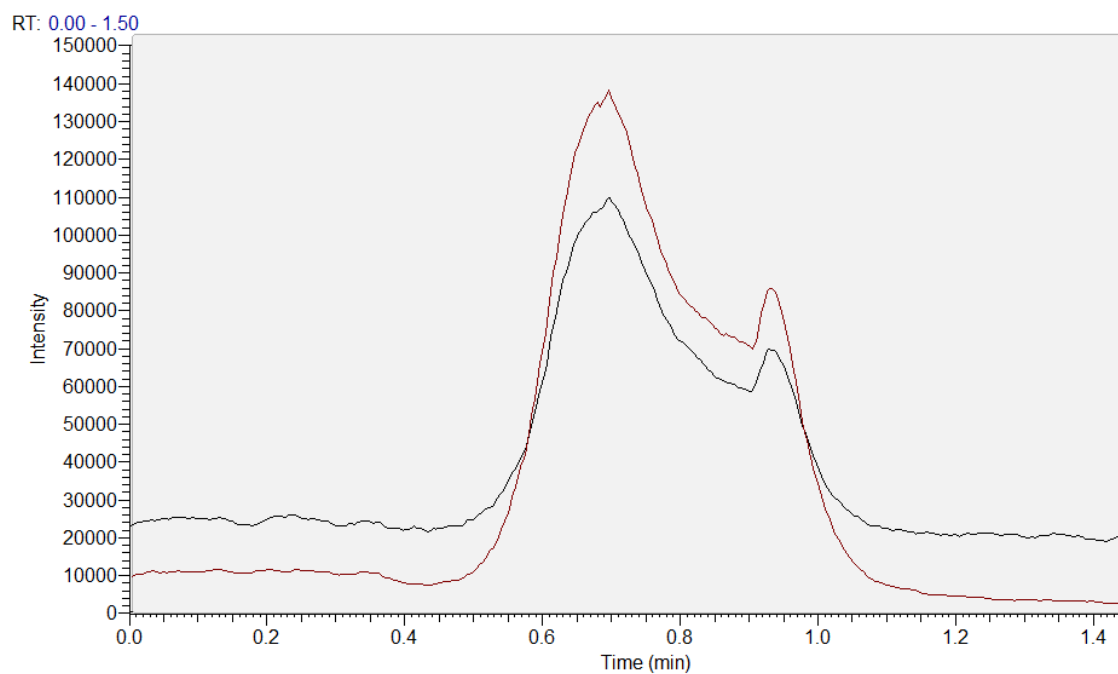
**Figure S-1.** IBMP calibration curve by SPME-DART-SVP-Orbitrap, plotted as signal ratio IBMP:D3-IBMP vs. IBMP concentration in water



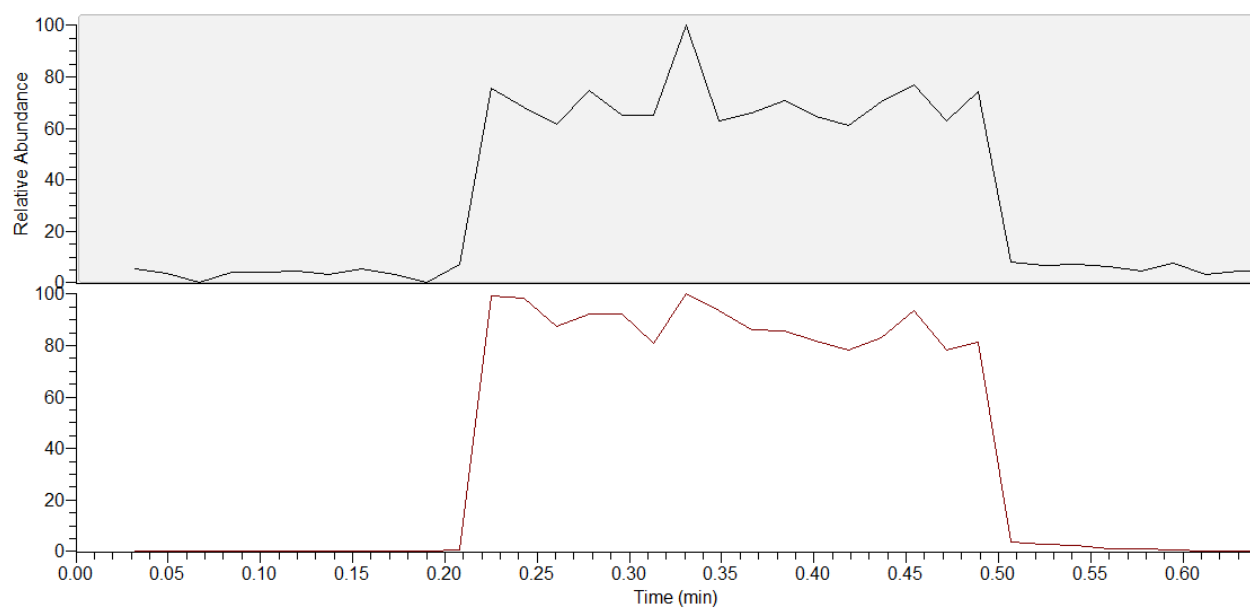
**Figure S-2a.** IBMP calibration curve by SPMEHS-DART-MS/MS, plotted as signal ratio IBMP:D3-IBMP vs. IBMP concentration in water



**Figure S-2b.** Linalool calibration curve by SPMEHS-DART-MS/MS, plotted as signal ratio linalool:D3-linalool vs. linalool concentration in water



**Figure S-3.** Sample MS/MS chromatogram for SPME/SH-DART analysis of linalool (m/z 137.132 to 81) at 500  $\mu\text{g/L}$ , with internal standard D3-linalool (m/z 140.144 to 83). Desorption is occurring during ~0.5-0.8 min



**Figure S-4.** Sample chromatogram for SPMESH-DART-SVP-HRMS analysis of linalool (top, m/z 137.1326) and internal standard D3-linalool (bottom, m/z 140.1513). Desorption is occurring during ~0.20-0.50 min.