

GC–MS analysis of a *Helichrysum italicum* hydrosol: sensitivity, repeatability, and reliability of solvent extraction versus direct hydrosol analysis

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Supplementary Materials: Raw GC-MS chromatograms of nine analysis presented methods

Figure S1: GC-MS chromatogram of direct hydrosol analysis using split 100. (TIC signal vs. time in minutes)

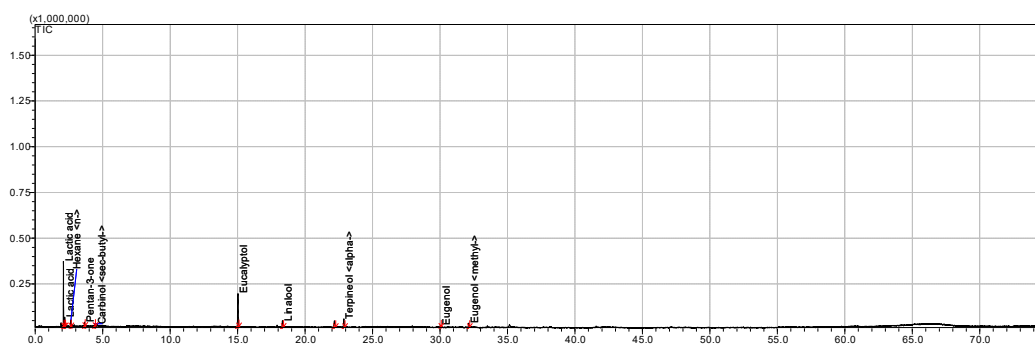


Figure S2: GC-MS chromatogram of direct hydrosol analysis using split 10. (TIC signal vs. time in minutes)

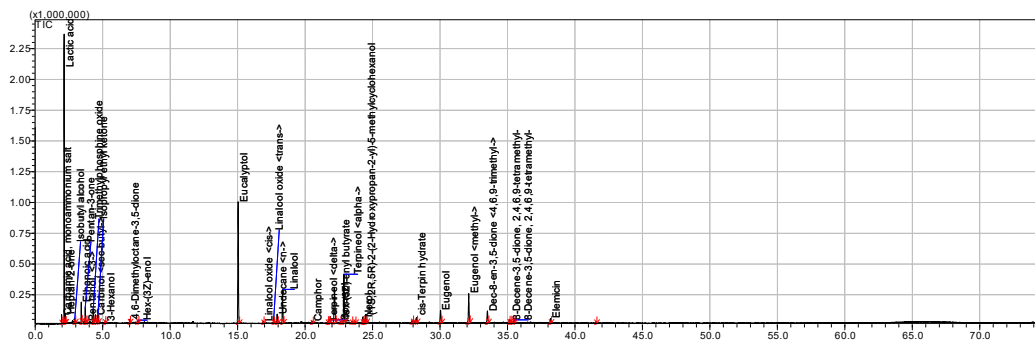
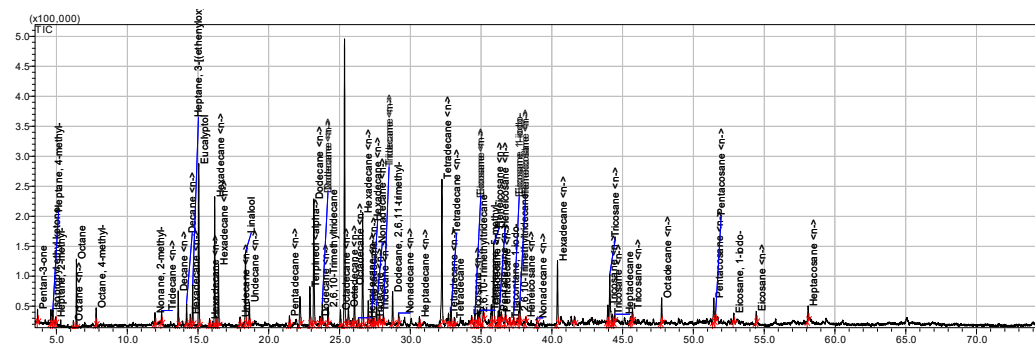


Figure S3: GC-MS chromatogram of hydrosol 1:1 extract in plastic analysis using split 100. (TIC signal vs. time in minutes)



Chromatogram of the sample showing peaks for various compounds. The x-axis is time in minutes (0 to 70) and the y-axis is intensity (0 to 4.0). Peaks are labeled: Pentan-3-one, Terpinol allyl ketone, Eucalyptol, Linalool, Linalyl acetate, Terpinol <alpha>, Eugenol <alpha>, and Dec-8-ene-3,5-dione <4,6,8-trimethyl>.

Mass spectrum plot showing relative intensity (%) versus m/z. The x-axis ranges from 50 to 750 m/z, and the y-axis ranges from 0 to 100% relative intensity. The base peak is at m/z 31. Other significant peaks are labeled with their chemical names and structures.

m/z	Chemical Name	Structure
31	Hydrogen cyanide	<chem>N#C</chem>
39	Acetylene	<chem>C#C</chem>
41	Propyne	<chem>CC#C</chem>
53	Butyne	<chem>CCC#C</chem>
67	Pentyn-1-ol	<chem>CCCC#C</chem>
79	Hexyn-1-ol	<chem>CCCCC#C</chem>
91	Heptyn-1-ol	<chem>CCCCC#C</chem>
103	Octyn-1-ol	<chem>CCCCC#C</chem>
115	Nonyn-1-ol	<chem>CCCCC#C</chem>
127	Decyn-1-ol	<chem>CCCCC#C</chem>
139	Undecyn-1-ol	<chem>CCCCC#C</chem>
151	Dodecyn-1-ol	<chem>CCCCC#C</chem>
163	Tridecyn-1-ol	<chem>CCCCC#C</chem>
175	Tetradecyn-1-ol	<chem>CCCCC#C</chem>
187	Pentadecyn-1-ol	<chem>CCCCC#C</chem>
199	Hexadecyn-1-ol	<chem>CCCCC#C</chem>
211	Heptadecyn-1-ol	<chem>CCCCC#C</chem>
223	Octadecyn-1-ol	<chem>CCCCC#C</chem>
235	Nonadecyn-1-ol	<chem>CCCCC#C</chem>
247	Eicosyn-1-ol	<chem>CCCCC#C</chem>
259	Hentriacontyn-1-ol	<chem>CCCCC#C</chem>
271	Triacontyn-1-ol	<chem>CCCCC#C</chem>
283	Tetracontyn-1-ol	<chem>CCCCC#C</chem>
295	Pentacosyn-1-ol	<chem>CCCCC#C</chem>
307	Hexacosyn-1-ol	<chem>CCCCC#C</chem>
319	Heptacosyn-1-ol	<chem>CCCCC#C</chem>
331	Octacosyn-1-ol	<chem>CCCCC#C</chem>
343	Nonacosyn-1-ol	<chem>CCCCC#C</chem>
355	triacontyn-1-ol	<chem>CCCCC#C</chem>
367	triacontyn-1-ol	<chem>CCCCC#C</chem>
379	triacontyn-1-ol	<chem>CCCCC#C</chem>
391	triacontyn-1-ol	<chem>CCCCC#C</chem>
403	triacontyn-1-ol	<chem>CCCCC#C</chem>
415	triacontyn-1-ol	<chem>CCCCC#C</chem>
427	triacontyn-1-ol	<chem>CCCCC#C</chem>
439	triacontyn-1-ol	<chem>CCCCC#C</chem>
451	triacontyn-1-ol	<chem>CCCCC#C</chem>
463	triacontyn-1-ol	<chem>CCCCC#C</chem>
475	triacontyn-1-ol	<chem>CCCCC#C</chem>
487	triacontyn-1-ol	<chem>CCCCC#C</chem>
499	triacontyn-1-ol	<chem>CCCCC#C</chem>
511	triacontyn-1-ol	<chem>CCCCC#C</chem>
523	triacontyn-1-ol	<chem>CCCCC#C</chem>
535	triacontyn-1-ol	<chem>CCCCC#C</chem>
547	triacontyn-1-ol	<chem>CCCCC#C</chem>
559	triacontyn-1-ol	<chem>CCCCC#C</chem>
571	triacontyn-1-ol	<chem>CCCCC#C</chem>
583	triacontyn-1-ol	<chem>CCCCC#C</chem>
595	triacontyn-1-ol	<chem>CCCCC#C</chem>
607	triacontyn-1-ol	<chem>CCCCC#C</chem>
619	triacontyn-1-ol	<chem>CCCCC#C</chem>
631	triacontyn-1-ol	<chem>CCCCC#C</chem>
643	triacontyn-1-ol	<chem>CCCCC#C</chem>
655	triacontyn-1-ol	<chem>CCCCC#C</chem>
667	triacontyn-1-ol	<chem>CCCCC#C</chem>
679	triacontyn-1-ol	<chem>CCCCC#C</chem>
691	triacontyn-1-ol	<chem>CCCCC#C</chem>
703	triacontyn-1-ol	<chem>CCCCC#C</chem>
715	triacontyn-1-ol	<chem>CCCCC#C</chem>
727	triacontyn-1-ol	<chem>CCCCC#C</chem>
739	triacontyn-1-ol	<chem>CCCCC#C</chem>
751	triacontyn-1-ol	<chem>CCCCC#C</chem>

The chromatogram displays the following peaks and their approximate retention times:

Peak Label	Approximate Retention Time (min)
Pentan-3-one	5.0
Isopropyl ethyl ketone	6.0
Eucalyptol	15.0
2-methyl-3-penten-2-ol	18.0
Linalool	20.0
Terpinol-α	23.0
Eugenol-α-methyl	32.0
Dec-5-en-3,5-dione-α,6,8-trimethyl	33.0

Figure S7: GC-MS chromatogram of hydrosol 1:1 extract in glass with NaCl analysis using split 10. (TIC signal vs. time in minutes)

