



Department of Molecular and Cell Biology

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21 February 2023

To:

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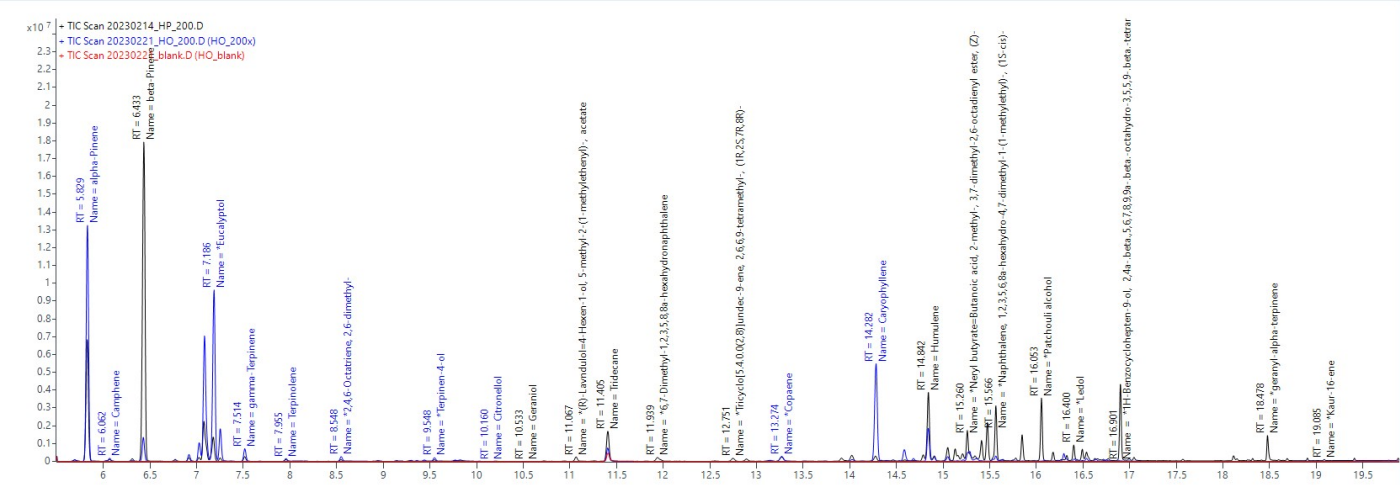
Steam-distilled *Helichrysum cymosum* essential oil (200 times dilution with ethyl acetate), 1 µl was injected into GCMS on 21 February 2023.

Results:

| Compound names “*” compound identified by NIST 13 and Agilent Fiehn library-not verified by commercial reference material | Relative peak area % | wt/v % calculated with standard curve |
|--|----------------------|--|
| alpha-Pinene | 41.31 | 31.61 |
| *trans-beta-Ocimene | 20.36 | |
| *Eucalyptol | 6.64 | |
| p-cymene | 4.60 | 11.24 |
| Caryophyllene | 4.36 | 13.95 |
| beta-Pinene | 4.36 | 3.42 |
| Humulene | 4.24 | 3.15 |
| *beta-Ocimene | 4.12 | |
| gamma-Terpinene | 1.82 | 1.59 |
| D-Limonene | 1.50 | 2.14 |
| alpha-Terpinene | 0.78 | 0.90 |
| *2,4,6-Octatriene, 2,6-dimethyl- | 0.60 | |
| *Copaene | 0.56 | |
| *Terpinen-4-ol | 0.47 | |
| *Aromandendrene | 0.43 | |
| *Naphthalene, 1,2,3,5,6,8a-hexahydro-4,7-dimethyl-1-(1-methylethyl)-, (1S-cis)- | 0.39 | |
| Camphene | 0.37 | 0.36 |
| alpha-Cedrene | 0.36 | 0.23 |
| *Bicyclo[3.1.0]hex-2-ene, 4-methyl-1-(1-methylethyl)- | 0.34 | |
| *Gamma-gurjunene=Azulene, 1,2,3,3a,4,5,6,7-octahydro-1,4-dimethyl-7-(1-methylethenyl)-, [1R-(1.alpha.,3a.beta.,4.alpha.,7.beta.)]- | 0.32 | |

| | |
|--|------|
| *Neryl butyrate=Butanoic acid, 2-methyl-, 3,7-dimethyl-2,6-octadienyl ester, (Z)- | 0.26 |
| Terpinolene | 0.26 |
| *1H-3a,7-Methanoazulene, 2,3,6,7,8,8a-hexahydro-1,4,9,9-tetramethyl-, (1.alpha.,3a.alpha.,7.alpha.,8a.beta.)- | 0.16 |
| *alpha-Guaiene | 0.15 |
| alpha-Terpineol | 0.14 |
| *beta-Phellandrene | 0.13 |
| *l-Menthone_2 | 0.12 |
| *alpha-Muurolene | 0.11 |
| *Isolodene | 0.11 |
| *Alloaromadendrene | 0.10 |
| *(1R,3E,7E,11R)-1,5,5,8-Tetramethyl-12-oxabicyclo[9.1.0]dodeca-3,7-diene | 0.10 |
| 3-Carene | 0.08 |
| *1H-Cycloprop[e]azulene, 1a,2,3,4,4a,5,6,7b-octahydro-1,1,4,7-tetramethyl-, [1aR-(1a.alpha.,4.alpha.,4a.beta.,7b.alpha.)]- | 0.07 |
| *Cyclohexanemethanol, .alpha.,.alpha.-dimethyl-4-methylene- | 0.07 |
| *l-Menthone_1 | 0.06 |
| endo-Borneol | 0.06 |
| *alpha-Calacorene | 0.06 |
| *Lavandulyl butyrate or Geranyl isobutyrate | 0.01 |

Mrs Pei-yin Liebrich
Chief Scientific Officer (Manager of GCMS unit at MCB, UCT)



Chromatogram comparison of HP (black) and HO (blue); red: blank (only contains internal standard: tridecane)