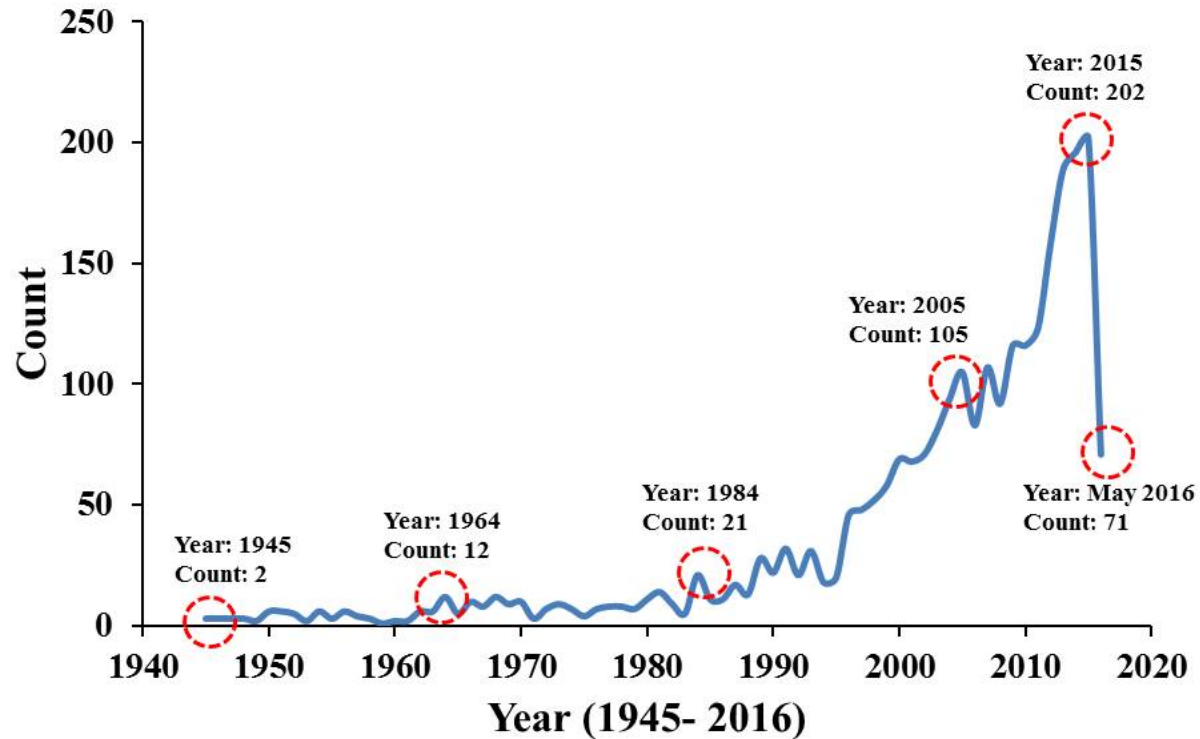
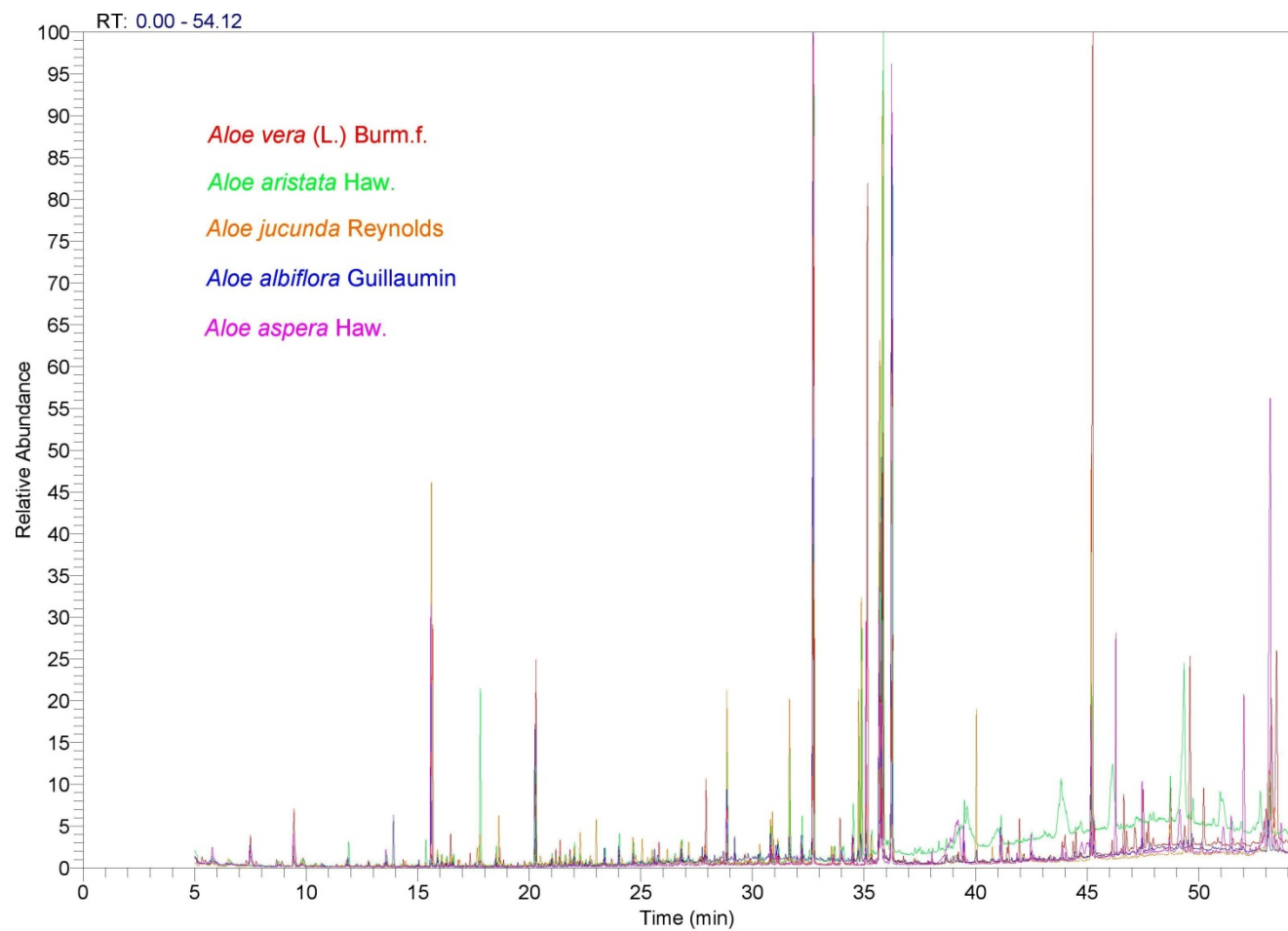


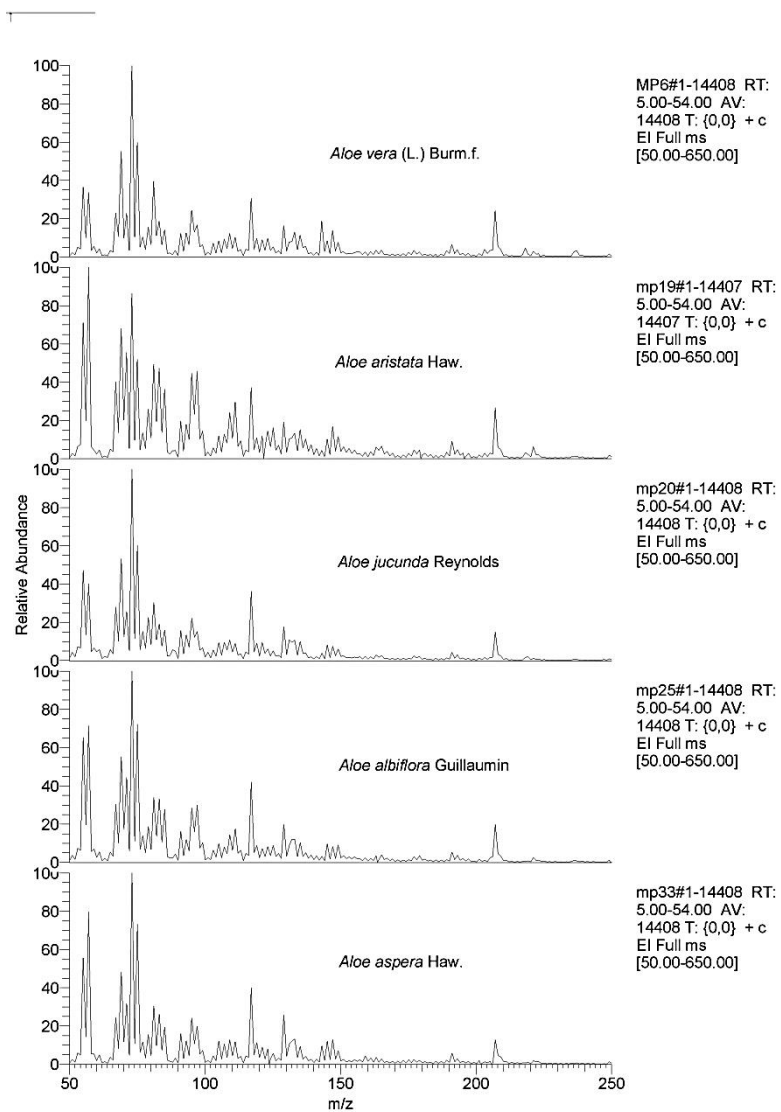
Supplementary Data



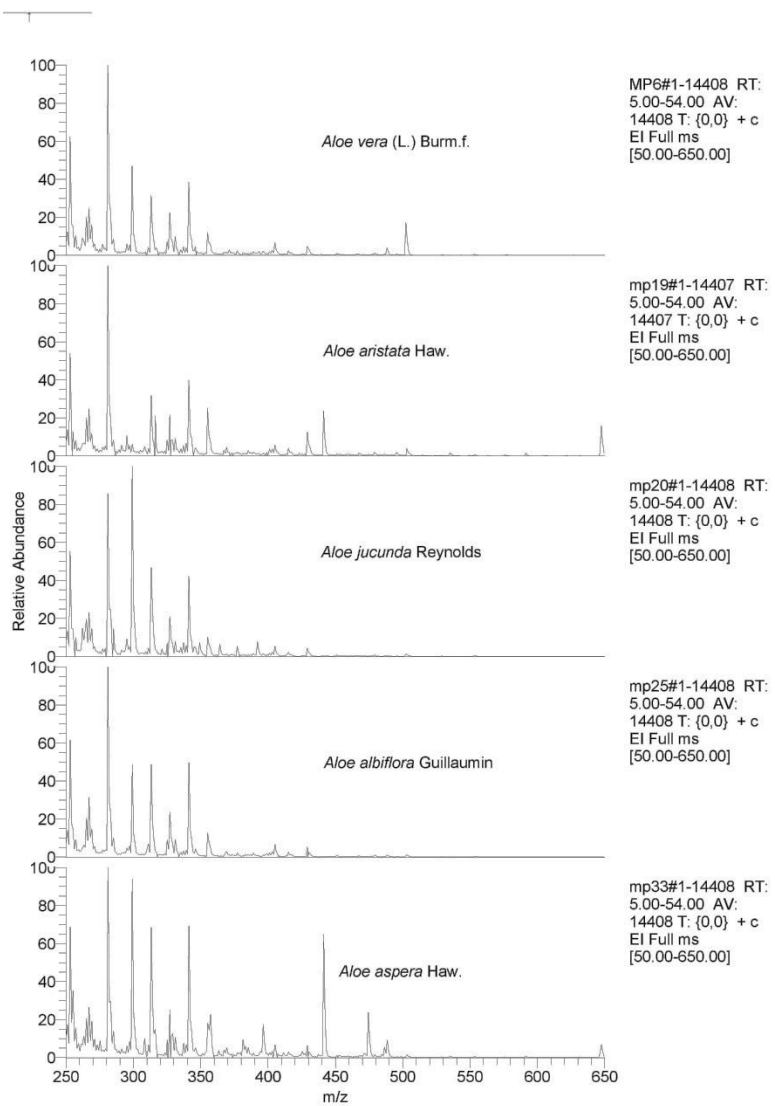
Supplementary figure 1: The global trend of increased count in research on *Aloe vera*. The graphical representation is based on data collected from 'results by year' option of the PubMed database with the keyword '*Aloe vera*'.



Supplementary figure 2: All GC chromatograms merged.



Supplementary figure 3: Total mass fragment details (50-250 amu)



Supplementary figure 4: Total mass fragment details (250-650 amu)

Phytochemicals identified in *Aloe vera* (L.) Burm.f.

| Compound name | Formula | [M-H] ⁻ | Identifying mass fragments | Retention time | Relative abundance [#] |
|--|--|--------------------|---|----------------|---------------------------------|
| Ethylene glycol, di-TMS | C ₈ H ₂₂ O ₂ Si ₂ | 205 | 191 (C ₇ H ₁₉ O ₂ Si ₂), 147* (C ₄ H ₁₁ O ₂ Si ₂), 103 (C ₄ H ₁₁ OSi) | 7.31 | 0.94 ± 0.16 |
| Propylene glycol, di-TMS | C ₉ H ₂₄ O ₂ Si ₂ | 219 | 147 (C ₆ H ₁₅ O ₂ Si), 117* (C ₅ H ₁₃ OSi) | 7.76 | 0.88 ± 0.12 |
| Butane, 2,3-bis(trimethylsiloxy)- | C ₁₀ H ₂₆ O ₂ Si ₂ | 233 | 147 (C ₆ H ₁₅ O ₂ Si), 117* (C ₅ H ₁₃ OSi) | 8.68 | 1.06 ± 0.22 |
| Glycolic acid, di-TMS | C ₈ H ₂₀ O ₃ Si ₂ | 219 | 147* (C ₅ H ₁₁ O ₃ Si) | 9.85 | 1.48 ± 0.35 |
| Octadecane, 6-methyl- | C ₁₉ H ₄₀ | 267 | 98* (C ₇ H ₁₄) | 13.16 | 0.55 ± 0.08 |
| 4-Ethylbenzaldehyde | C ₉ H ₁₀ O | 133* | 119 (C ₈ H ₇ O), 105 (C ₈ H ₉) | 13.62 | 0.86 ± 0.18 |
| 4-Hydroxybutyric acid, diTMS | C ₁₀ H ₂₄ O ₃ Si ₂ | 247 | 147* (C ₃ H ₇ O ₃ Si ₂), 117 (C ₄ H ₉ O ₂ Si) | 14.35 | 1.38 ± 0.35 |
| Benzoic acid, TMS | C ₁₀ H ₁₄ O ₂ Si | 193 | 179 (C ₉ H ₁₁ O ₂ Si), 105* (C ₇ H ₅ O) | 14.50 | 0.48 ± 0.07 |
| (±)-2-Hydroxyoctanoic acid, trimethylsilyl ester | C ₁₁ H ₂₄ O ₃ Si | 231 | 117 (C ₄ H ₉ O ₂ Si), 97 (C ₇ H ₁₃), 73* (C ₃ H ₉ Si) | 14.74 | 0.51 ± 0.12 |
| Octanoic acid, TMS ester | C ₁₁ H ₂₄ O ₂ Si | 215 | 201* (C ₁₀ H ₂₁ O ₂ Si), 145 (C ₈ H ₁₇ O ₂) | 15.01 | 0.52 ± 0.06 |
| Phosphoric acid, triTMS | C ₉ H ₂₇ O ₄ PSi ₃ | 313 | 299* (C ₈ H ₂₄ O ₄ PSi ₃), 211 (C ₅ H ₁₆ O ₃ PSi) | 15.67 | 29.34 ± 2.29 |
| Succinate, bis-TMS | C ₁₀ H ₂₂ O ₄ Si ₂ | 261 | 147* (C ₆ H ₁₅ O ₂ Si) | 16.48 | 5.02 ± 0.84 |
| Methyl succinic acid, bis-TMS | C ₁₁ H ₂₄ O ₄ Si ₂ | 275 | 147* (C ₆ H ₁₅ O ₂ Si) | 16.82 | 0.94 ± 0.25 |
| Glyceric acid, (3TMS) | C ₁₂ H ₃₀ O ₄ Si ₃ | 321 | 189 (C ₇ H ₁₇ O ₂ Si ₂), 147 (C ₅ H ₁₁ O ₃ Si), 73* (C ₃ H ₉ Si) | 17.15 | 0.74 ± 0.28 |
| Fumaric acid, bis-TMS ester | C ₁₀ H ₂₀ O ₄ Si ₂ | 259 | 245* (C ₉ H ₁₇ O ₄ Si ₂), 147 (C ₆ H ₁₃ O ₂ Si ₂) | 17.35 | 1.85 ± 0.49 |

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| Nonanoic acid, TMS ester | C ₁₂ H ₂₆ O ₂ Si | 229 | 215* (C ₁₁ H ₂₃ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si) | 17.60 | 0.51 ± 0.12 |
| Phenol, 2-methoxy-3-(2-propenyl)- | C ₁₀ H ₁₂ O ₂ | 163* | 149 (C ₉ H ₉ O ₂), 131 (C ₉ H ₇ O) | 17.82 | 0.98 ± 0.24 |
| Tetradecane | C ₁₄ H ₃₀ | 197 | 85 (C ₆ H ₁₃), 71 (C ₅ H ₁₁), 57* (C ₄ H ₉) | 18.54 | 0.82 ± 0.35 |
| Methyleugenol | C ₁₁ H ₁₄ O ₂ | 177* | 163 (C ₁₀ H ₁₁ O ₂), 147 (C ₁₀ H ₁₁ O) | 18.67 | 2.59 ± 0.52 |
| Glutarate, bis-TMS | C ₁₁ H ₂₄ O ₄ Si ₂ | 275 | 204 (C ₈ H ₁₆ O ₄ Si), 158 (C ₇ H ₁₄ O ₂ Si), 147* (C ₆ H ₁₅ OSi) | 18.85 | 0.96 ± 0.27 |
| 1-Dodecanol, O-TMS | C ₁₅ H ₃₄ OSi | 257 | 243* (C ₁₄ H ₃₁ OSi) | 19.78 | 0.88 ± 0.24 |
| 4-Allyl-2-methoxyphenoxy-TMS | C ₁₃ H ₂₀ O ₂ Si | 235 | 206* (C ₁₁ H ₁₄ O ₂ Si), 179 (C ₉ H ₁₁ O ₂ Si) | 20.30 | 25.26 ± 2.29 |
| β-copaene | C ₁₅ H ₂₄ | 203 | 161* (C ₁₂ H ₁₇), 119 (C ₆ H ₁₃), 105 (C ₇ H ₁₅) | 20.59 | 0.47 ± 0.05 |
| Malic acid, tris-TMS | C ₁₃ H ₃₀ O ₅ Si ₃ | 349 | 245 (C ₉ H ₁₇ O ₄ Si ₂), 233 (C ₉ H ₂₁ O ₃ Si ₂), 147 (C ₈ H ₂₂ O ₂ Si ₂), 73* (C ₃ H ₉ Si) | 21.20 | 2.53 ± 0.34 |
| Adipic acid, (2TMS) | C ₁₂ H ₂₆ O ₄ Si ₂ | 289 | 141 (C ₇ H ₁₃ OSi), 111 (C ₆ H ₇ O ₂), 73* (C ₃ H ₉ Si) | 21.38 | 3.36 ± 0.68 |
| 2-methyl-1-Hexadecanol | C ₁₇ H ₃₆ O | 255 | 69 (C ₅ H ₉), 57* (C ₄ H ₉) | 21.64 | 0.98 ± 0.20 |
| Pyroglutamic acid, bis(trimethylsilyl)- | C ₁₁ H ₂₃ NO ₃ Si ₂ | 272 | 156* (C ₇ H ₁₄ NOSi) | 21.82 | 2.28 ± 0.47 |
| m-Hydroxybenzoic acid, (TMS) | C ₁₃ H ₂₂ O ₃ Si ₂ | 281 | 267* (C ₁₂ H ₁₉ O ₃ Si ₂), 193 (C ₁₀ H ₁₃ O ₂ Si) | 22.78 | 1.01 ± 0.12 |
| Pimelic acid, bis-TMS | C ₁₃ H ₂₈ O ₄ Si ₂ | 303 | 155 (C ₈ H ₁₅ OSi), 125 (C ₇ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 23.69 | 1.14 ± 0.18 |
| Dodecanoic acid, 1-methylethyl ester | C ₁₅ H ₃₀ O ₂ | 241 | 102 (C ₅ H ₁₀ O ₂), 60* (C ₃ H ₈ O) | 24.04 | 2.24 ± 0.56 |
| 4-Hydroxybenzoic acid (2TMS) | C ₁₃ H ₂₂ O ₃ Si ₂ | 281 | 267* (C ₁₂ H ₁₉ O ₃ Si ₂), 193 (C ₁₀ H ₁₃ O ₂ Si) | 24.20 | 0.58 ± 0.33 |

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| Lauric acid (TMS) | C ₁₅ H ₃₂ O ₂ Si | 271 | 257 (C ₁₄ H ₂₉ O ₂ Si), 117* (C ₄ H ₉ O ₂ Si) | 24.68 | 2.16 ± 0.69 |
| 1-[(Trimethylsilyl)oxy]-2-methylantraquinone | C ₁₈ H ₁₈ O ₃ Si | 309 | 295* (C ₁₇ H ₁₅ O ₃ Si), 265 (C ₁₆ H ₁₃ O ₂ Si) | 25.55 | 1.32 ± 0.43 |
| Suberic acid (2TMS) | C ₁₄ H ₃₀ O ₄ Si ₂ | 317 | 169 (C ₉ H ₁₇ O ₄ Si), 129 (C ₅ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 25.81 | 3.36 ± 0.48 |
| Geranyl isovalerate | C ₁₅ H ₂₆ O ₂ | 237 | 121 (C ₉ H ₁₃), 103 (C ₅ H ₁₁ O ₂), 85* (C ₅ H ₉ O) | 25.90 | 0.61 ± 0.15 |
| Tetradecane, 2,6,10-trimethyl- | C ₁₇ H ₃₆ | 239 | 85 (C ₆ H ₁₃), 71 (C ₅ H ₁₁), 57* (C ₄ H ₉) | 26.85 | 2.12 ± 0.62 |
| 1,3-Benzenedicarboxylic acid, bis(trimethylsilyl) ester | C ₁₄ H ₂₂ O ₄ Si ₂ | 309 | 295* (C ₁₃ H ₁₉ O ₄ Si ₂), 221 (C ₁₁ H ₁₃ O ₃ Si) | 27.79 | 2.38 ± 0.68 |
| Azelaic acid, diTMS | C ₁₅ H ₃₂ O ₄ Si ₂ | 331 | 201 (C ₁₀ H ₂₁ O ₂ Si), 129 (C ₅ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 27.92 | 2.06 ± 0.41 |
| Protocatechuic acid (TMS) | C ₁₆ H ₃₀ O ₄ Si ₃ | 369 | 281 (C ₁₃ H ₂₁ O ₂ Si ₃), 193 (C ₉ H ₁₀ O ₃ Si), 73* (C ₃ H ₉ Si) | 28.53 | 1.49 ± 0.37 |
| Tetradecanoic acid, TMS | C ₁₇ H ₃₆ O ₂ Si | 299 | 285 (C ₁₆ H ₃₃ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 28.89 | 8.36 ± 0.96 |
| Sebacic acid (bis-TMS) | C ₁₆ H ₃₄ O ₄ Si ₂ | 245 | 129 (C ₅ H ₉ O ₂ Si), 215 (C ₁₂ H ₂₃ O ₂ Si), 73* (C ₃ H ₉ Si) | 29.90 | 13.63 ± 3.53 |
| Pentadecanoic acid, TMS ester | C ₁₈ H ₃₈ O ₂ Si | 313 | 299 (C ₁₇ H ₃₅ O ₂ Si), 117* (C ₄ H ₉ O ₂ Si) | 30.84 | 1.94 ± 0.42 |
| Phenol, 2,4,6-tris(1,1-dimethylethyl)- | C ₁₈ H ₃₀ O | 261 | 247* (C ₁₇ H ₂₇ O) | 30.93 | 2.31 ± 0.45 |
| Undecandioic acid di-TMS | C ₁₇ H ₃₆ O ₄ Si ₂ | 359 | 345 (C ₁₆ H ₃₃ O ₄ Si ₂), 229 (C ₁₂ H ₂₅ O ₂ Si), 73* (C ₃ H ₉ Si) | 31.78 | 1.54 ± 0.28 |
| Palmitelaidic acid, trimethylsilyl ester | C ₁₉ H ₃₈ O ₂ Si | 325 | 311 (C ₁₈ H ₃₅ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 32.24 | 1.36 ± 0.44 |
| Palmitic acid, TMS | C ₁₉ H ₄₀ O ₂ Si | 327 | 313 (C ₁₈ H ₃₇ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si), 73* | 32.76 | 71.74 ± 2.26 |

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|---|--|------|--|-------|--------------|
| | | | (C ₃ H ₉ Si) | | |
| Phytol | C ₂₀ H ₄₀ O | 295 | 123 (C ₉ H ₁₅), 71* (C ₄ H ₇ O) | 33.93 | 5.27 ± 0.97 |
| (2E)-3,7,11,15-Tetramethyl-2-hexadecenyl trimethylsilyl ether # | C ₂₃ H ₄₈ OSi | 367 | 143* (C ₇ H ₁₅ OSi), 123 (C ₉ H ₁₅) | 35.16 | 81.92 ± 1.52 |
| Dodecanedioic acid di-TMS | C ₁₈ H ₃₈ O ₄ Si ₂ | 373 | 359* (C ₁₇ H ₃₅ O ₄ Si ₂), 243 (C ₁₃ H ₂₇ O ₂ Si), 129 (C ₅ H ₉ O ₂ Si) | 35.35 | 1.55 ± 0.30 |
| Linoleic acid, TMS | C ₂₁ H ₄₀ O ₂ Si | 351 | 262 (C ₁₈ H ₃₀ O), 129 (C ₅ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 35.72 | 40.06 ± 3.54 |
| α-Linolenic acid, TMS | C ₂₁ H ₃₈ O ₂ Si | 349 | 129 (C ₅ H ₉ O ₂ Si), 95 (C ₇ H ₁₁), 73* (C ₃ H ₉ Si) | 35.85 | 55.28 ± 1.72 |
| Octadecanoic acid, TMS | C ₂₁ H ₄₄ O ₂ Si | 355 | 341 (C ₂₀ H ₄₁ O ₂ Si), 117* (C ₄ H ₉ O ₂ Si) | 36.28 | 63.51 ± 1.26 |
| Eicosanoic acid, TMS ester | C ₂₃ H ₄₈ O ₂ Si | 383 | 145 (C ₆ H ₁₃ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 39.51 | 1.04 ± 0.20 |
| 2-Monopalmitoylglycerol trimethylsilyl ether | C ₂₅ H ₅₄ O ₄ Si ₂ | 473 | 239 (C ₁₆ H ₃₁ O), 218 (C ₉ H ₂₂ O ₂ Si ₂), 129* (C ₆ H ₁₃ OSi) | 41.48 | 1.29 ± 0.42 |
| 1-Monopalmitin trimethylsilyl ether | C ₂₅ H ₅₄ O ₄ Si ₂ | 473 | 313 (C ₁₇ H ₃₃ O ₃ Si), 218 (C ₉ H ₂₂ O ₂ Si ₂), 129* (C ₆ H ₁₃ O) | 41.97 | 4.76 ± 0.74 |
| Docosanoic acid, TMS ester | C ₂₅ H ₅₂ O ₂ Si | 411 | 397 (C ₂₄ H ₄₉ O ₂ Si), 117* (C ₄ H ₉ O ₂ Si) | 42.53 | 0.89 ± 0.26 |
| 9-Octadecenoic acid, 1,3-bis-(OTMS)-2-propyl ester | C ₂₇ H ₅₆ O ₄ Si ₂ | 499 | 221 (C ₁₆ H ₂₉), 203 (C ₈ H ₁₉ O ₂ Si ₂), 73* (C ₃ H ₉ Si) | 44.50 | 2.57 ± 0.54 |
| Squalene | C ₃₀ H ₅₀ | 409 | 81 (C ₆ H ₉), 69* (C ₅ H ₉) | 45.25 | 98.26 ± 2.83 |
| Tetracosanoic acid, trimethylsilyl ester | C ₂₇ H ₅₆ O ₂ Si | 439 | 145 (C ₆ H ₁₃ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 45.33 | 6.53 ± 0.44 |
| Heptacosane | C ₂₇ H ₅₆ | 379 | 85 (C ₆ H ₁₃), 71 (C ₅ H ₁₁), 57* (C ₄ H ₉) | 48.74 | 8.76 ± 0.43 |
| (+)-α-Tocopherol, O- | C ₃₂ H ₅₈ O ₂ Si | 501* | 277 (C ₁₆ H ₂₅ O ₂ Si), 237 (C ₁₇ H ₃₃) | 49.61 | 19.25 ± 1.06 |

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|-------------------------|-------------------------------------|-----|--|-------|------------------|
| trimethylsilyl- | | | | | |
| β -Sitosterol TMS | C ₃₂ H ₅₈ OSi | 485 | 396 (C ₂₉ H ₄₈), 255 (C ₁₉ H ₂₇), 129* (C ₆ H ₁₃ OSi) | 53.25 | 16.87 \pm 0.82 |
| β -Amyrin, TMS | C ₃₃ H ₅₈ OSi | 487 | 218* (C ₁₆ H ₂₆), 203 (C ₁₅ H ₂₃) | 53.49 | 23.48 \pm 2.57 |

* = Base peak; # = Relative abundance after baseline normalization.

Phytochemicals identified in *Aloe aristata* Haw.

| Compound name | Formula | [M-H] ⁻ | Identifying mass fragments | Retention time | Relative abundance |
|-------------------------------------|--|--------------------|--|----------------|--------------------|
| Benzeneacetaldehyde | C ₈ H ₈ O | 119 | 91* (C ₇ H ₇) | 8.77 | 0.46 ± 0.13 |
| Lactic acid, bis-TMS | C ₉ H ₂₂ O ₃ Si ₂ | 233 | 147 (C ₅ H ₁₁ O ₃ Si), 117 (C ₅ H ₁₃ O ₃ Si), 73* (C ₃ H ₉ Si) | 9.46 | 0.38 ± 0.54 |
| 2-Undecanethiol, 2-methyl- | C ₁₂ H ₂₆ S | 201 | 83 (C ₆ H ₁₁), 69 (C ₅ H ₉), 55* (C ₄ H ₇) | 9.79 | 0.94 ± 0.17 |
| Benzaldehyde, 2,5-dimethyl- | C ₉ H ₁₀ O | 133* | 105 (C ₈ H ₉) | 13.62 | 1.12 ± 0.28 |
| Phenol, 2-ethyl, TMS | C ₁₁ H ₁₈ OSi | 193 | 179 (C ₁₀ H ₁₅ OSi), 103 (C ₄ H ₁₁ OSi), 73* (C ₃ H ₉ Si) | 13.95 | 0.31 ± 0.06 |
| 3-Ethylphenol, trimethylsilyl ether | C ₁₁ H ₁₈ OSi | 193 | 179* (C ₁₀ H ₁₅ OSi) | 14.27 | 0.55 ± 0.12 |
| p-Ethylguaiacol | C ₉ H ₁₂ O ₂ | 151 | 137* (C ₈ H ₉ O ₂), 122 (C ₇ H ₆ O ₂) | 15.37 | 1.58 ± 0.32 |
| Phosphoric acid, triTMS | C ₉ H ₂₇ O ₄ PSi ₃ | 313 | 299* (C ₈ H ₂₄ O ₄ PSi ₃), 211 (C ₅ H ₁₆ O ₃ PSi) | 15.62 | 1.27 ± 0.47 |
| Tridecane | C ₁₃ H ₂₈ | 183 | 85 (C ₆ H ₁₃), 71 (C ₅ H ₁₁), 57* (C ₄ H ₉) | 15.90 | 1.31 ± 0.29 |
| 3-Eicosene, (E)- | C ₂₀ H ₄₀ | 279 | 83 (C ₆ H ₁₁), 69 (C ₅ H ₉), 57* (C ₄ H ₉) | 16.08 | 1.26 ± 0.25 |
| 2-methyl-1-Hexadecanol | C ₁₇ H ₃₆ O | 255 | 69 (C ₅ H ₉), 57* (C ₄ H ₉) | 16.31 | 1.45 ± 0.61 |
| Dodecane, 2,6,11-trimethyl- | C ₁₅ H ₃₂ | 211 | 85 (C ₆ H ₁₃), 71 (C ₅ H ₁₁), 57* (C ₄ H ₉) | 16.61 | 1.38 ± 0.34 |
| Eugenol | C ₁₀ H ₁₂ O ₂ | 163* | 149 (C ₉ H ₉ O ₂), 131 (C ₉ H ₇ O ₂), 103 | 17.81 | 20.53 ± 1.55 |

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|---|---|------|---|-------|--------------|
| | | | (C ₇ H ₃ O) | | |
| Vanillin, TMS | C ₁₁ H ₁₆ O ₃ Si | 223 | 209 (C ₁₀ H ₁₃ O ₃ Si), 194* (C ₉ H ₁₀ O ₃ Si) | 18.53 | 2.29 ± 0.86 |
| Methyleugenol | C ₁₁ H ₁₄ O ₂ | 177* | 163 (C ₁₀ H ₁₁ O ₂), 147 (C ₁₀ H ₁₁ O) | 18.66 | 1.01 ± 0.27 |
| 4-Allyl-2-methoxyphenoxy-TMS | C ₁₃ H ₂₀ O ₂ Si | 235 | 206* (C ₁₁ H ₁₄ O ₂ Si), 179 (C ₉ H ₁₁ O ₂ Si) | 20.28 | 10.14 ± 0.89 |
| Hexadecane | C ₁₆ H ₃₄ | 225 | 85 (C ₆ H ₁₃), 71 (C ₅ H ₁₁), 57* (C ₄ H ₉) | 21.03 | 1.22 ± 0.42 |
| Phenol, 2,4-bis(1,1-dimethylethyl)- (Antioxidant No. 33) | C ₁₄ H ₂₂ O | 205 | 191* (C ₁₃ H ₁₉ O), 57 (C ₄ H ₉) | 21.36 | 1.26 ± 0.36 |
| Nonadecane | C ₁₉ H ₄₀ | 267 | 85 (C ₆ H ₁₃), 71 (C ₅ H ₁₁), 57* (C ₄ H ₉) | 23.40 | 1.87 ± 0.28 |
| Dodecanoic acid, 1-methylethyl ester | C ₁₅ H ₃₀ O ₂ | 241 | 102 (C ₅ H ₁₀ O ₂), 60* (C ₃ H ₈ O) | 24.04 | 4.06 ± 0.69 |
| Lauric acid (TMS) | C ₁₅ H ₃₂ O ₂ Si | 271 | 257 (C ₁₄ H ₂₉ O ₂ Si), 117* (C ₄ H ₉ O ₂ Si) | 24.68 | 3.12 ± 0.53 |
| Tetradecane, 2,6,10-trimethyl- | C ₁₇ H ₃₆ | 239 | 85 (C ₆ H ₁₃), 71 (C ₅ H ₁₁), 57* (C ₄ H ₉) | 25.65 | 0.96 ± 0.08 |
| Heptadecane, 2,6,10,15-tetramethyl- | C ₂₁ H ₄₄ | 295 | 85 (C ₆ H ₁₃), 71 (C ₅ H ₁₁), 57* (C ₄ H ₉) | 26.84 | 1.59 ± 0.26 |
| Myristic acid, trimethylsilyl ester | C ₁₇ H ₃₆ O ₂ Si | 299 | 285 (C ₁₆ H ₃₃ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 28.88 | 13.72 ± 2.04 |
| Pentadecanoic acid, TMS ester | C ₁₈ H ₃₈ O ₂ Si | 313 | 299 (C ₁₇ H ₃₅ O ₂ Si), 117* (C ₄ H ₉ O ₂ Si) | 30.84 | 4.28 ± 0.59 |
| Ethyl palmitate | C ₁₈ H ₃₆ O ₂ | 283 | 157 (C ₉ H ₁₇ O ₂), 101 (C ₅ H ₉ O ₂), 88* (C ₄ H ₈ O ₂) | 31.69 | 14.23 ± 1.74 |
| cis-9-Hexadecenoic acid, trimethylsilyl ester | C ₁₉ H ₃₈ O ₂ Si | 325 | 311 (C ₁₈ H ₃₅ O ₂ Si), 145 (C ₆ H ₁₃ O ₂ Si), 117* (C ₄ H ₉ O ₂ Si) | 32.24 | 6.58 ± 1.33 |

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| Palmitic acid, TMS | C ₁₉ H ₄₀ O ₂ Si | 327 | 313 (C ₁₈ H ₃₇ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 32.77 | 92.25 ± 3.52 |
| cis-10-Heptadecenoic acid, trimethylsilyl ester | C ₂₀ H ₄₀ O ₂ Si | 339 | 325* (C ₁₉ H ₃₇ O ₂ Si), 145 (C ₆ H ₁₃ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si) | 34.09 | 2.02 ± 0.46 |
| Heptadecanoic acid, TMS | C ₂₀ H ₄₂ O ₂ Si | 341 | 327 (C ₁₉ H ₃₉ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 34.52 | 5.69 ± 0.85 |
| 9,12-Octadecadienoic acid, ethyl ester | C ₂₀ H ₃₆ O ₂ | 307 | 95 (C ₇ H ₁₁), 81 (C ₆ H ₉), 67* (C ₅ H ₇) | 34.79 | 15.18 ± 0.78 |
| Ethyl 9,12,15-octadecatrienoate | C ₂₀ H ₃₄ O ₂ | 305 | 108 (C ₈ H ₁₂), 95 (C ₇ H ₁₁), 79* (C ₆ H ₇) | 34.91 | 28.66 ± 1.16 |
| Linoleic acid, TMS | C ₂₁ H ₄₀ O ₂ Si | 351 | 262 (C ₁₈ H ₃₀ O), 129 (C ₅ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 35.72 | 58.24 ± 3.59 |
| α-Linolenic acid, TMS | C ₂₁ H ₃₈ O ₂ Si | 349 | 129 (C ₅ H ₉ O ₂ Si), 95 (C ₇ H ₁₁), 73* (C ₃ H ₉ Si) | 35.87 | 93.22 ± 2.48 |
| Octadecanoic acid, TMS | C ₂₁ H ₄₄ O ₂ Si | 355 | 341 (C ₂₀ H ₄₁ O ₂ Si), 117* (C ₄ H ₉ O ₂ Si) | 36.28 | 81.87 ± 1.36 |
| α-Amyrin | C ₃₀ H ₅₀ O | 425 | 218* (C ₁₆ H ₂₆), 203 (C ₁₅ H ₂₃) | 43.82 | 7.04 ± 0.92 |
| Squalene | C ₃₀ H ₅₀ | 409 | 81 (C ₆ H ₉), 69* (C ₅ H ₉) | 45.20 | 18.48 ± 1.63 |
| Ethyl iso-allocholate | C ₂₆ H ₄₄ O ₅ | 435 | 253 (C ₁₅ H ₂₅ O ₃), 129 (C ₇ H ₁₃ O ₂), 107 (C ₈ H ₁₁), 55* (C ₃ H ₃ O) | 49.74 | 2.25 ± 0.55 |
| β-Sitosterol TMS | C ₃₂ H ₅₈ OSi | 485 | 396 (C ₂₉ H ₄₈), 255 (C ₁₉ H ₂₇), 129* (C ₆ H ₁₃ OSi) | 53.19 | 7.21 ± 0.34 |

* = Base peak; # = Relative abundance after baseline normalization.

Phytochemicals identified in *Aloe jucunda* Reynolds

| Compound name | Formula | [M-H] ⁻ | Identifying mass fragments | Retention time | Relative abundance |
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| Benzaldehyde | C ₇ H ₆ O | 105 | 77* (C ₆ H ₅) | 6.52 | 0.48 ± 0.16 |
| Lactic acid, bis-TMS | C ₉ H ₂₂ O ₃ Si ₂ | 233 | 147 (C ₅ H ₁₁ O ₃ Si), 117 (C ₅ H ₁₃ O ₃ Si), 73* (C ₃ H ₉ Si) | 9.42 | 0.96 ± 0.22 |
| Phenol, 2-ethyl, TMS | C ₁₁ H ₁₈ OSi | 193 | 179 (C ₁₀ H ₁₅ O ₂ Si), 103 (C ₄ H ₁₁ O ₂ Si), 73* (C ₃ H ₉ Si) | 13.92 | 0.24 ± 0.07 |
| Benzoic acid, TMS | C ₁₀ H ₁₄ O ₂ Si | 193 | 179 (C ₉ H ₁₁ O ₂ Si), 105* (C ₇ H ₅ O) | 14.46 | 0.39 ± 0.04 |
| Octanoic acid, TMS ester | C ₁₁ H ₂₄ O ₂ Si | 315 | 201* (C ₁₀ H ₂₁ O ₂ Si), 145 (C ₈ H ₁₇ O ₂) | 14.98 | 0.53 ± 0.08 |
| Phosphoric acid, triTMS | C ₉ H ₂₇ O ₄ PSi ₃ | 313 | 299* (C ₈ H ₂₄ O ₄ PSi ₃), 211 (C ₅ H ₁₆ O ₃ PSi) | 15.62 | 45.22 ± 2.58 |
| Phenylacetic acid, monoTMS | C ₁₁ H ₁₆ O ₂ Si | 208 | 193 (C ₁₀ H ₁₃ O ₂ Si), 91 (C ₇ H ₇), 73* (C ₃ H ₉ Si) | 15.88 | 1.68 ± 0.43 |
| Benzene, 4-ethyl-1,2-dimethoxy- | C ₁₀ H ₁₄ O ₂ | 165 | 151* (C ₉ H ₁₁ O ₂), 135 (C ₉ H ₁₁ O), 95 (C ₇ H ₁₁) | 16.52 | 1.27 ± 0.57 |
| Benzaldehyde, 2-[(trimethylsilyl)oxy]- | C ₁₀ H ₁₄ O ₂ Si | 193 | 179* (C ₉ H ₁₁ O ₂ Si), 161 (C ₉ H ₉ O ₂ Si), 149 (C ₈ H ₉ O ₂ Si) | 16.88 | 0.79 ± 0.21 |
| 4-Vinylveratrole | C ₁₀ H ₁₂ O ₂ | 163* | 149 (C ₉ H ₉ O ₂), 91 (C ₇ H ₇) | 17.67 | 1.37 ± 0.24 |
| Eugenol | C ₁₀ H ₁₂ O ₂ | 163* | 149 (C ₉ H ₉ O ₂), 131 (C ₉ H ₇ O ₂), 103 (C ₇ H ₃ O) | 17.78 | 1.85 ± 0.54 |
| Tetradecane | C ₁₄ H ₃₀ | 197 | 85 (C ₆ H ₁₃), 71 (C ₅ H ₁₁), 57* (C ₄ H ₉) | 18.50 | 0.98 ± 0.16 |
| Methyleugenol | C ₁₁ H ₁₄ O ₂ | 177* | 163 (C ₁₀ H ₁₁ O ₂), 147 (C ₁₀ H ₁₁ O) | 18.64 | 6.21 ± 0.78 |

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| 2-Allyl-1,4-dimethoxy-3-methyl-benzene | C ₁₂ H ₁₆ O ₂ | 191* | 177 (C ₁₁ H ₁₃ O ₂), 149 (C ₉ H ₉ O ₂), 91 (C ₇ H ₇) | 19.49 | 0.34 ± 0.25 |
| 4-Allyl-2-methoxyphenoxy-TMS | C ₁₃ H ₂₀ O ₂ Si | 235 | 206* (C ₁₁ H ₁₄ O ₂ Si), 179 (C ₉ H ₁₁ O ₂ Si) | 20.26 | 14.89 ± 0.69 |
| Nonadecane | C ₁₉ H ₄₀ | 267 | 85 (C ₆ H ₁₃), 71 (C ₅ H ₁₁), 57* (C ₄ H ₉) | 21.00 | 0.66 ± 0.16 |
| Phenol, 3,5-bis(1,1-dimethylethyl)- | C ₁₄ H ₂₂ O | 205 | 191* (C ₁₃ H ₁₉ O), 57 (C ₄ H ₉) | 21.33 | 0.58 ± 0.08 |
| 1,2-Dimethoxy-4-(2-methoxyethenyl)benzene | C ₁₁ H ₁₄ O ₃ | 193* | 179 (C ₁₀ H ₁₁ O ₃), 151 (C ₉ H ₁₁ O ₂), 91 (C ₇ H ₇) | 21.43 | 0.52 ± 0.12 |
| 1-Dodecanol, O-TMS | C ₁₅ H ₃₄ OSi | 257 | 243* (C ₁₄ H ₃₁ OSi) | 22.73 | 3.38 ± 0.75 |
| Estragole | C ₁₀ H ₁₂ O | 147* | 133 (C ₉ H ₉ O), 121 (C ₈ H ₉ O), 77 (C ₆ H ₅) | 23.00 | 4.26 ± 0.59 |
| Dodecanoic acid, 1-methylethyl ester | C ₁₅ H ₃₀ O ₂ | 241 | 102 (C ₅ H ₁₀ O ₂), 60* (C ₃ H ₈ O) | 24.01 | 1.04 ± 0.18 |
| 4-Hydroxybenzoic acid (2TMS) | C ₁₃ H ₂₂ O ₃ Si ₂ | 281 | 267* (C ₁₂ H ₁₉ O ₃ Si ₂), 223 (C ₁₁ H ₃ O ₂ Si), 193 (C ₁₀ H ₁₃ O ₂ Si) | 24.16 | 0.65 ± 0.22 |
| Lauric acid (TMS) | C ₁₅ H ₃₂ O ₂ Si | 271 | 257 (C ₁₄ H ₂₉ O ₂ Si), 117* (C ₄ H ₉ O ₂ Si) | 24.65 | 2.10 ± 0.46 |
| β-bisabolol | C ₁₅ H ₂₆ O | 221 | 204 (C ₁₅ H ₂₄), 119 (C ₉ H ₁₁), 93 (C ₇ H ₉), 81* (C ₆ H ₉) | 25.06 | 1.87 ± 0.48 |
| Tetradecane, 2,6,10-trimethyl- | C ₁₇ H ₃₆ | 239 | 85 (C ₆ H ₁₃), 71 (C ₅ H ₁₁), 57* (C ₄ H ₉) | 26.81 | 1.75 ± 0.27 |
| Geranyl isovalerate | C ₁₅ H ₂₆ O ₂ | 237 | 121 (C ₉ H ₁₃), 103 (C ₅ H ₁₁ O ₂), 85* (C ₅ H ₉ O) | 27.14 | 2.04 ± 0.52 |
| Tetradecanoic acid, (TMS) | C ₁₇ H ₃₆ O ₂ Si | 299 | 285 (C ₁₆ H ₃₃ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 28.85 | 21.22 ± 3.63 |
| Benzoic acid, 3,5-bis(1,1-dimethylethyl)- | C ₁₆ H ₂₄ O ₃ | 263 | 249* (C ₁₅ H ₂₁ O ₃), 233 (C ₁₅ H ₂₁ O ₂) | 29.67 | 0.94 ± 0.20 |

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| 4-hydroxy-, methyl ester | | | | | |
| Hexadecanoic acid, methyl ester | C ₁₇ H ₃₄ O ₂ | 269 | 143 (C ₈ H ₁₅ O ₂), 87 (C ₄ H ₇ O ₂), 74* (C ₃ H ₆ O ₂) | 30.33 | 1.68 ± 0.56 |
| Phenol, 2,4,6-tris(1,1-dimethylethyl)- | C ₁₈ H ₃₀ O | 261 | 247* (C ₁₇ H ₂₇ O) | 30.90 | 6.24 ± 0.21 |
| Ethyl palmitate | C ₁₈ H ₃₆ O ₂ | 283 | 157 (C ₉ H ₁₇ O ₂), 101 (C ₅ H ₉ O ₂), 88* (C ₄ H ₈ O ₂) | 31.66 | 19.08 ± 2.57 |
| Palmitelaidic acid, trimethylsilyl ester | C ₁₉ H ₃₈ O ₂ Si | 325 | 311 (C ₁₈ H ₃₅ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 32.20 | 2.48 ± 0.85 |
| Palmitic acid, TMS | C ₁₉ H ₄₀ O ₂ Si | 327 | 313 (C ₁₈ H ₃₇ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 32.73 | 98.51 ± 1.03 |
| Linolenic acid, methyl ester | C ₁₉ H ₃₂ O ₂ | 291 | 236 (C ₁₅ H ₂₄ O ₂), 95 (C ₇ H ₁₁), 79* (C ₆ H ₇) | 33.66 | 2.43 ± 0.34 |
| Heptadecanoic acid, TMS | C ₂₀ H ₄₂ O ₂ Si | 341 | 327 (C ₁₉ H ₃₉ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 34.49 | 3.65 ± 0.61 |
| 9,12-Octadecadienoic acid, ethyl ester | C ₂₀ H ₃₆ O ₂ | 307 | 95 (C ₇ H ₁₁), 81 (C ₆ H ₉), 67* (C ₅ H ₇) | 34.76 | 20.08 ± 2.11 |
| Ethyl 9,12,15-octadecatrienoate | C ₂₀ H ₃₄ O ₂ | 305 | 108 (C ₈ H ₁₂), 95 (C ₇ H ₁₁), 79* (C ₆ H ₇) | 34.88 | 31.25 ± 1.63 |
| Stearic acid, ethyl ester | C ₂₀ H ₄₀ O ₂ | 311 | 157 (C ₉ H ₁₇ O ₂), 101 (C ₅ H ₉ O ₂), 88* (C ₄ H ₈ O ₂) | 35.32 | 3.78 ± 0.28 |
| Linoleic acid, TMS | C ₂₁ H ₄₀ O ₂ Si | 351 | 262 (C ₁₈ H ₃₀ O), 129 (C ₅ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 35.69 | 61.22 ± 2.94 |
| α-Linolenic acid, TMS | C ₂₁ H ₃₈ O ₂ Si | 349 | 129 (C ₅ H ₉ O ₂ Si), 95 (C ₇ H ₁₁), 73* (C ₃ H ₉ Si) | 35.83 | 91.69 ± 2.53 |
| Octadecanoic acid, TMS | C ₂₁ H ₄₄ O ₂ Si | 355 | 341 (C ₂₀ H ₄₁ O ₂ Si), 117* (C ₄ H ₉ O ₂ Si) | 36.25 | 78.22 ± 3.78 |

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| Eicosanoic acid, TMS ester | C ₂₃ H ₄₈ O ₂ Si | 383 | 145 (C ₆ H ₁₃ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 39.47 | 2.04 ± 0.32 |
| Bumetrizole | C ₁₇ H ₁₈ ClN ₃ O | 314 | 300* (C ₁₆ H ₁₅ ClN ₃ O), 272 (C ₁₅ H ₁₅ ClN ₃), 147 (C ₁₀ H ₁₁ O) | 41.19 | 3.26 ± 0.58 |
| cis-13-Docosenoic acid, trimethylsilyl ester | C ₂₅ H ₅₀ O ₂ Si | 409 | 395 (C ₂₄ H ₄₇ O ₂ Si), 129 (C ₅ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 42.13 | 0.75 ± 0.39 |
| Docosanoic acid, TMS ester | C ₂₅ H ₅₂ O ₂ Si | 411 | 397 (C ₂₄ H ₄₉ O ₂ Si), 117* (C ₄ H ₉ O ₂ Si) | 42.48 | 1.18 ± 0.06 |
| Squalene | C ₃₀ H ₅₀ | 409 | 81 (C ₆ H ₉), 69* (C ₅ H ₉) | 45.18 | 48.67 ± 1.63 |
| Heptacosane | C ₂₇ H ₅₆ | 379 | 85 (C ₆ H ₁₃), 71 (C ₅ H ₁₁), 57* (C ₄ H ₉) | 48.70 | 3.95 ± 0.87 |
| Ethyl iso-allocholate | C ₂₆ H ₄₄ O ₅ | 435 | 253 (C ₁₅ H ₂₅ O ₃), 129 (C ₇ H ₁₃ O ₂), 107 (C ₈ H ₁₁), 55* (C ₃ H ₃ O) | 49.33 | 0.63 ± 0.12 |
| β-Amyrin, TMS | C ₃₃ H ₅₈ O ₂ Si | 497 | 218* (C ₁₆ H ₂₆), 203 (C ₁₅ H ₂₃) | 53.38 | 2.58 ± 0.93 |

* = Base peak; # = Relative abundance after baseline normalization.

Phytochemicals identified in *Aloe albiflora* Guillaumin

| Compound name | Formula | [M-H] | Identifying mass fragments | Retention time | Relative abundance |
|---|--|-------|--|----------------|--------------------|
| 2-Hexanol, trimethylsilyl ether | C ₉ H ₂₂ OSi | 173 | 159 (C ₈ H ₁₉ OSi), 117* (C ₅ H ₁₃ OSi) | 5.78 | 0.45 ± 0.06 |
| Benzeneacetaldehyde | C ₈ H ₈ O | 119 | 91* (C ₇ H ₇) | 8.72 | 0.22 ± 0.08 |
| Lactic acid, bis-TMS | C ₉ H ₂₂ O ₃ Si ₂ | 233 | 147 (C ₅ H ₁₁ O ₃ Si), 117 (C ₅ H ₁₃ OSi), 73* (C ₃ H ₉ Si) | 9.41 | 1.02 ± 0.13 |
| Hydrocinnamic acid, benzyldimethylsilyl ester | C ₁₈ H ₂₂ O ₂ Si | 297 | 207* (C ₁₁ H ₁₅ O ₂ Si), 91 (C ₇ H ₇), 75 (C ₆ H ₃) | 10.70 | 0.28 ± 0.08 |
| Benzaldehyde, 2,4-dimethyl- | C ₉ H ₁₀ O | 133* | 105 (C ₈ H ₉) | 13.57 | 0.53 ± 0.11 |
| Phenol, 2-ethyl, TMS | C ₁₁ H ₁₈ OSi | 193 | 179 (C ₁₀ H ₁₅ OSi), 103 (C ₄ H ₁₁ OSi), 73* (C ₃ H ₉ Si) | 13.91 | 6.08 ± 0.24 |
| 9-Decen-1-ol, trimethylsilyl ether | C ₁₃ H ₂₈ OSi | 227 | 213 (C ₁₂ H ₂₅ OSi), 103 (C ₄ H ₁ OSi), 75* (C ₂ H ₇ OSi) | 15.05 | 0.84 ± 0.09 |
| Phosphoric acid, triTMS | C ₉ H ₂₇ O ₄ PSi ₃ | 313 | 299* (C ₈ H ₂₄ O ₄ PSi ₃), 211 (C ₅ H ₁₆ O ₃ PSi) | 15.59 | 22.15 ± 1.65 |
| Benzeneacetic acid, trimethylsilyl ester | C ₁₁ H ₁₆ O ₂ Si | 207 | 164 (C ₁₀ H ₁₂ O ₂ Si), 91 (C ₇ H ₇), 73* (C ₃ H ₉ Si) | 15.87 | 1.24 ± 0.47 |
| Nonanoic acid, trimethylsilyl ester | C ₁₂ H ₂₆ O ₂ Si | 229 | 215* (C ₁₁ H ₂₃ O ₂ Si), 129 (C ₅ H ₉ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si) | 17.56 | 0.37 ± 0.06 |
| Phenol, 2-methoxy-3-(2-propenyl)- | C ₁₀ H ₁₂ O ₂ | 163* | 149 (C ₉ H ₉ O ₂), 131 (C ₉ H ₇ O) | 17.76 | 0.68 ± 0.12 |

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| Phenol, 3-(2-trimethylsilyloxyethyl)- | C ₁₁ H ₁₈ O ₂ Si | 209 | 195 (C ₁₀ H ₁₅ O ₂ Si), 103 (C ₄ H ₁₁ O ₂ Si), 73* (C ₃ H ₉ Si) | 18.46 | 0.92 ± 0.35 |
| Methyleugenol | C ₁₁ H ₁₄ O ₂ | 177* | 163 (C ₁₀ H ₁₁ O ₂), 147 (C ₁₀ H ₁₁ O) | 18.63 | 0.30 ± 0.04 |
| 1,2-Ethandiol, phenyl, bis-TMS | C ₁₄ H ₂₆ O ₂ Si ₂ | 281 | 179* (C ₁₀ H ₁₅ O ₂ Si), 147 (C ₉ H ₇ O ₂) | 19.49 | 0.87 ± 0.15 |
| 4-Allyl-2-methoxyphenoxy-TMS | C ₁₃ H ₂₀ O ₂ Si | 235 | 206* (C ₁₁ H ₁₄ O ₂ Si), 179 (C ₉ H ₁₁ O ₂ Si) | 20.25 | 16.34 ± 0.73 |
| Phenol, 2,4-bis(1,1-dimethylethyl)- (Antioxidant No. 33) | C ₁₄ H ₂₂ O | 205 | 206* (C ₁₁ H ₁₄ O ₂ Si), 179 (C ₉ H ₁₁ O ₂ Si) | 21.32 | 0.52 ± 0.08 |
| 2-methyl-1-Hexadecanol | C ₁₇ H ₃₆ O | 255 | 69 (C ₅ H ₉), 57* (C ₄ H ₉) | 22.25 | 0.31 ± 0.02 |
| Nonadecane | C ₁₉ H ₄₀ | 267 | 85 (C ₆ H ₁₃), 71 (C ₅ H ₁₁), 57* (C ₄ H ₉) | 23.37 | 2.03 ± 0.68 |
| Dodecanoic acid, 1-methylethyl ester | C ₁₅ H ₃₀ O ₂ | 241 | 102 (C ₅ H ₁₀ O ₂), 60* (C ₃ H ₈ O) | 24.00 | 3.65 ± 0.33 |
| Lauric acid (TMS) | C ₁₅ H ₃₂ O ₂ Si | 271 | 257 (C ₁₄ H ₂₉ O ₂ Si), 117* (C ₄ H ₉ O ₂ Si) | 24.64 | 1.19 ± 0.21 |
| β-bisabolol | C ₁₅ H ₂₆ O | 221 | 204 (C ₁₅ H ₂₄), 119 (C ₉ H ₁₁), 93 (C ₇ H ₉), 81* (C ₆ H ₉) | 25.05 | 0.24 ± |
| Tetradecane, 2,6,10-trimethyl- | C ₁₇ H ₃₆ | 239 | 85 (C ₆ H ₁₃), 71 (C ₅ H ₁₁), 57* (C ₄ H ₉) | 25.75 | 1.62 ± 0.56 |
| tert-Hexadecanethiol | C ₁₆ H ₃₄ S | 257 | 83 (C ₆ H ₁₁), 69 (C ₅ H ₉), 57* (C ₄ H ₉) | 26.50 | 0.25 ± 0.22 |
| Tetradecanoic acid, (TMS) | C ₁₇ H ₃₆ O ₂ Si | 299 | 285 (C ₁₆ H ₃₃ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 28.84 | 9.05 ± 0.89 |
| Pentadecanoic acid, TMS ester | C ₁₈ H ₃₈ O ₂ Si | 313 | 299 (C ₁₇ H ₃₅ O ₂ Si), 117* (C ₄ H ₉ O ₂ Si) | 30.80 | 1.38 ± 0.53 |

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|---|---|-----|---|-------|--------------|
| Hexadecanoic acid, ethyl ester | C ₁₈ H ₃₆ O ₂ | 283 | 239 (C ₁₆ H ₃₁ O), 101 (C ₅ H ₉ O ₂), 88* (C ₄ H ₈ O ₂) | 31.65 | 1.88 ± 0.38 |
| cis-9-Hexadecenoic acid, trimethylsilyl ester | C ₁₉ H ₃₈ O ₂ Si | 325 | 311 (C ₁₈ H ₃₅ O ₂ Si), 145 (C ₆ H ₁₃ O ₂ Si), 117* (C ₄ H ₉ O ₂ Si) | 32.20 | 2.26 ± 0.52 |
| Palmitic acid, TMS | C ₁₉ H ₄₀ O ₂ Si | 327 | 313 (C ₁₈ H ₃₇ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 32.71 | 97.63 ± 2.48 |
| cis-13-Eicosenoic acid | C ₂₀ H ₃₈ O ₂ | 309 | 292 (C ₂₀ H ₃₆ O), 69 (C ₅ H ₉), 55* (C ₄ H ₇) | 33.05 | 0.18 ± 0.05 |
| Heptadecanoic acid, TMS | C ₂₀ H ₄₂ O ₂ Si | 341 | 327 (C ₁₉ H ₃₉ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 34.48 | 2.47 ± 0.29 |
| Ethyl 9,12,15-octadecatrienoate | C ₂₀ H ₃₄ O ₂ | 305 | 108 (C ₈ H ₁₂), 95 (C ₇ H ₁₁), 79* (C ₆ H ₇) | 34.87 | 2.53 ± 0.48 |
| Linoleic acid, TMS | C ₂₁ H ₄₀ O ₂ Si | 351 | 262 (C ₁₈ H ₃₀ O), 129 (C ₅ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 35.66 | 21.67 ± 2.24 |
| α-Linolenic acid, TMS | C ₂₁ H ₃₈ O ₂ Si | 349 | 129 (C ₅ H ₉ O ₂ Si), 95 (C ₇ H ₁₁), 73* (C ₃ H ₉ Si) | 35.80 | 48.05 ± 1.09 |
| Octadecanoic acid, TMS | C ₂₁ H ₄₄ O ₂ Si | 355 | 341 (C ₂₀ H ₄₁ O ₂ Si), 117* (C ₄ H ₉ O ₂ Si) | 36.24 | 86.46 ± 2.65 |
| Eicosanoic acid, TMS ester | C ₂₃ H ₄₈ O ₂ Si | 383 | 145 (C ₆ H ₁₃ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 39.46 | 2.24 ± 0.35 |
| Squalene | C ₃₀ H ₅₀ | 409 | 81 (C ₆ H ₉), 69* (C ₅ H ₉) | 45.16 | 11.85 ± 1.17 |
| β-Sitosterol TMS | C ₃₂ H ₅₈ OSi | 485 | 396 (C ₂₉ H ₄₈), 255 (C ₁₉ H ₂₇), 129* (C ₆ H ₁₃ OSi) | 53.13 | 3.16 ± 0.46 |

* = Base peak; # = Relative abundance after baseline normalization.

Phytochemicals identified in *Aloe aspera* Haw.

| Compound name | Formula | [M-H] ⁻ | Identifying mass fragments | Retention time | Relative abundance |
|--|--|--------------------|---|----------------|--------------------|
| 2-Pentanol, trimethylsilyl ether | C ₈ H ₂₀ OSi | 159 | 145 (C ₇ H ₁₇ OSi), 117 (C ₅ H ₁₃ OSi) | 5.80 | 1.45 ± 0.25 |
| M-Pyrol | C ₅ H ₉ NO | 98* | 71 (C ₃ H ₅ NO) | 8.73 | 0.32 ± 0.04 |
| Lactic acid, (2TMS) | C ₉ H ₂₂ O ₃ Si ₂ | 233 | 147 (C ₅ H ₁₁ O ₃ Si), 117 (C ₅ H ₁₃ OSi), 73* (C ₃ H ₉ i) | 9.42 | 3.86 ± .38 |
| Benzaldehyde, 3,5-dimethyl- | C ₉ H ₁₀ O | 133* | 177 (C ₈ H ₉) | 13.57 | 1.54 ± 0.51 |
| Benzoic acid, TMS | C ₁₀ H ₁₄ O ₂ Si | 193 | 179 (C ₉ H ₁₁ O ₂ Si), 105* (C ₇ H ₅ O) | 14.45 | 0.29 ± 0.02 |
| Phosphoric acid, triTMS | C ₉ H ₂₇ O ₄ PSi ₃ | 313 | 299* (C ₈ H ₂₄ O ₄ PSi ₃), 211 (C ₅ H ₁₆ O ₃ PSi) | 15.59 | 32.18 ± 0.94 |
| Succinic acid (2TMS) | C ₁₀ H ₂₂ O ₄ Si ₂ | 261 | 247 (C ₉ H ₁₉ O ₄ Si ₂), 147* (C ₆ H ₁₅ O ₂ Si) | 16.42 | 0.69 ± 0.18 |
| Fumaric acid (2TMS) | C ₁₀ H ₂₀ O ₄ Si ₂ | 259 | 245* (C ₉ H ₁₇ O ₄ Si ₂), 147 (C ₄ H ₁ O ₂ Si) | 17.31 | 0.36 ± 0.07 |
| Nonanoic acid, TMS ester | C ₁₂ H ₂₆ O ₂ Si | 229 | 215* (C ₁₁ H ₂₃ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si) | 17.55 | 0.48 ± 0.12 |
| Tetradecane | C ₁₄ H ₃₀ | 197 | 85 (C ₆ H ₁₃), 71 (C ₅ H ₁₁), 57* (C ₄ H ₉) | 18.49 | 0.33 ± 0.04 |
| Decanoic acid, trimethylsilyl ester | C ₁₃ H ₂₈ O ₂ Si | 243 | 299* (C ₁₂ H ₂₅ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si) | 20.03 | 0.24 ± 0.02 |
| Phenol, 2,4-bis(1,1-dimethylethyl)- (Antioxidant No. 33) | C ₁₄ H ₂₂ O | 205 | 191* (C ₁₃ H ₁₉ O), 57 (C ₄ H ₉) | 21.32 | 0.39 ± 0.10 |
| Decane, 2,3,5,8-tetramethyl- | C ₁₄ H ₃₀ | 197 | 85 (C ₆ H ₁₃), 71 (C ₅ H ₁₁), 57* (C ₄ H ₉) | 22.00 | 0.67 ± 0.14 |
| 2-methyl-1- | C ₁₇ H ₃₆ O | 255 | 69 (C ₅ H ₉), 57* (C ₄ H ₉) | 22.24 | 0.20 ± 0.03 |

| | | | | | |
|---|--|-----|---|-------|--------------|
| Hexadecanol | | | | | |
| Hexadecane | C ₁₆ H ₃₄ | 225 | 85 (C ₆ H ₁₃), 71 (C ₅ H ₁₁), 57* (C ₄ H ₉) | 23.36 | 0.45 ± 0.06 |
| Dodecanoic acid, 1-methylethyl ester | C ₁₅ H ₃₀ O ₂ | 241 | 102 (C ₅ H ₁₀ O ₂), 60* (C ₃ H ₈ O) | 24.00 | 0.53 ± 0.15 |
| Lauric acid (TMS) | C ₁₅ H ₃₂ O ₂ Si | 271 | 257 (C ₁₄ H ₂₉ O ₂ Si), 117* (C ₄ H ₉ O ₂ Si) | 24.63 | 0.44 ± 0.09 |
| Nonadecane | C ₁₉ H ₄₀ | 267 | 85 (C ₆ H ₁₃), 71 (C ₅ H ₁₁), 57* (C ₄ H ₉) | 25.61 | 0.35 ± 0.11 |
| Heptadecane, 2,6,10,15-tetramethyl- | C ₂₁ H ₄₄ | 295 | 85 (C ₆ H ₁₃), 71 (C ₅ H ₁₁), 57* (C ₄ H ₉) | 26.80 | 0.71 ± 0.36 |
| Tetradecane, 2,6,10-trimethyl- | C ₁₇ H ₃₆ | 239 | 85 (C ₆ H ₁₃), 71 (C ₅ H ₁₁), 57* (C ₄ H ₉) | 27.76 | 0.58 ± 0.24 |
| Azelaic acid, diTMS | C ₁₅ H ₃₂ O ₄ Si ₂ | 331 | 201 (C ₁₀ H ₂₁ O ₂ Si), 129 (C ₅ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 27.88 | 0.48 ± 0.18 |
| Myristic acid, isopropyl ester | C ₁₇ H ₃₄ O ₂ | 269 | 228 (C ₁₄ H ₂₈ O ₂), 102* (C ₅ H ₁₀ O ₂) | 28.31 | 0.24 ± 0.03 |
| Tetradecanoic acid (TMS) | C ₁₇ H ₃₆ O ₂ Si | 299 | 285 (C ₁₆ H ₃₃ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 28.84 | 6.63 ± 0.27 |
| Pentadecanoic acid, TMS ester | C ₁₈ H ₃₈ O ₂ Si | 313 | 299 (C ₁₇ H ₃₅ O ₂ Si), 117* (C ₄ H ₉ O ₂ Si) | 30.80 | 1.74 ± 0.14 |
| cis-9-Hexadecenoic acid, trimethylsilyl ester | C ₁₉ H ₃₈ O ₂ Si | 325 | 311 (C ₁₈ H ₃₅ O ₂ Si), 145 (C ₆ H ₁₃ O ₂ Si), 117* (C ₄ H ₉ O ₂ Si) | 32.19 | 0.59 ± 0.08 |
| Palmitic acid, TMS | C ₁₉ H ₄₀ O ₂ Si | 327 | 313 (C ₁₈ H ₃₇ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 32.72 | 98.15 ± 2.56 |
| Heneicosane | C ₂₁ H ₄₄ | 295 | 85 (C ₆ H ₁₃), 71 (C ₆ H ₁₁), 57* (C ₄ H ₉) | 33.61 | 0.46 ± 0.09 |
| Heptadecanoic acid, TMS | C ₂₀ H ₄₂ O ₂ Si | 341 | 327 (C ₁₉ H ₃₉ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 34.48 | 1.97 ± 0.24 |
| Linoleic acid, TMS | C ₂₁ H ₄₀ O ₂ Si | 351 | 262 (C ₁₈ H ₃₀ O), 129 (C ₅ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 35.67 | 31.86 ± 1.09 |
| Oleic acid, | C ₂₁ H ₄₂ O ₂ Si | 353 | 339 (C ₂₀ H ₃₉ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si), 73* | 35.77 | 19.38 ± 0.68 |

| | | | | | |
|--|---|------|---|-------|--------------|
| trimethylsilyl ester | | | (C ₃ H ₉ Si) | | |
| Octadecanoic acid, TMS | C ₂₁ H ₄₄ O ₂ Si | 355 | 341 (C ₂₀ H ₄₁ O ₂ Si), 117* (C ₄ H ₉ O ₂ Si) | 36.24 | 96.45 ± 1.62 |
| Eicosanoic acid, TMS ester | C ₂₃ H ₄₈ O ₂ Si | 383 | 145 (C ₆ H ₁₃ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 39.46 | 5.22 ± 0.43 |
| 1-Docosanol, trimethylsilyl ether | C ₂₅ H ₅₄ O ₂ Si | 397 | 383* (C ₂₄ H ₅₁ O ₂ Si), 103 (C ₄ H ₉ O ₂ Si) | 41.15 | 3.43 ± 0.31 |
| Docosanoic acid, TMS ester | C ₂₅ H ₅₂ O ₂ Si | 411 | 397 (C ₂₄ H ₄₉ O ₂ Si), 117* (C ₄ H ₉ O ₂ Si) | 42.48 | 3.19 ± 0.78 |
| Squalene | C ₃₀ H ₅₀ | 409 | 81 (C ₆ H ₉), 69* (C ₅ H ₉) | 45.16 | 18.72 ± 0.63 |
| Tetracosanoic acid, trimethylsilyl ester | C ₂₇ H ₅₆ O ₂ Si | 439 | 145 (C ₆ H ₁₃ O ₂ Si), 117 (C ₄ H ₉ O ₂ Si), 73* (C ₃ H ₉ Si) | 45.29 | 26.34 ± 0.68 |
| Tocopherol-γ-tms-derivative | C ₃₁ H ₅₆ O ₂ Si | 487* | 263 (C ₁₅ H ₂₃ O ₂ Si), 223 (C ₁₆ H ₃₁), 73* | 47.46 | 8.37 ± 0.52 |
| Ethyl iso-allocholate | C ₂₆ H ₄₄ O ₅ | 435 | 253 (C ₁₅ H ₂₅ O ₃), 129 (C ₇ H ₁₃ O ₂), 107 (C ₈ H ₁₁), 55* (C ₃ H ₃ O) | 49.69 | 0.48 ± 0.08 |
| 1-Heptatriacotanol | C ₃₇ H ₇₆ O | 535 | 69 (C ₅ H ₉), 55* (C ₄ H ₇) | 50.10 | 0.41 ± 0.05 |
| Campesterol, TMS | C ₃₁ H ₅₆ O ₂ Si | 471 | 382 (C ₂₈ H ₄₆), 343 (C ₂₅ H ₄₃), 129* (C ₆ H ₁₃ O ₂ Si) | 51.45 | 3.66 ± 0.08 |
| Stigmasterol, TMS | C ₃₂ H ₅₆ O ₂ Si | 483 | 394 (C ₂₉ H ₄₆), 255 (C ₁₉ H ₂₇), 129 (C ₆ H ₁₃ O ₂ Si), 83* (C ₆ H ₁₁) | 52.03 | 19.02 ± 1.43 |
| β-Sitosterol TMS | C ₃₂ H ₅₈ O ₂ Si | 485 | 396 (C ₂₉ H ₄₈), 255 (C ₁₉ H ₂₇), 129* (C ₆ H ₁₃ O ₂ Si) | 53.21 | 53.48 ± 2.36 |

* = Base peak; # = Relative abundance after baseline normalization.

Additional Statistical Data

| Correlation Matrix | | | | | | |
|--------------------|---------------------|----------------|--------------------|-------------------|---------------------|------------------|
| | | <i>A. vera</i> | <i>A. aristata</i> | <i>A. jukunda</i> | <i>A. albiflora</i> | <i>A. aspera</i> |
| Correlation | <i>A. vera</i> | 1.000 | -.626 | -.420 | -.578 | -.446 |
| | <i>A. aristata</i> | -.626 | 1.000 | .790 | .708 | .899 |
| | <i>A. jukunda</i> | -.420 | .790 | 1.000 | .503 | .881 |
| | <i>A. albiflora</i> | -.578 | .708 | .503 | 1.000 | .536 |
| | <i>A. asparata</i> | -.446 | .899 | .881 | .536 | 1.000 |
| Sig. (1-tailed) | <i>A. vera</i> | | .000 | .000 | .000 | .000 |
| | <i>A. aristata</i> | .000 | | .000 | .000 | .000 |
| | <i>A. jukunda</i> | .000 | .000 | | .000 | .000 |
| | <i>A. albiflora</i> | .000 | .000 | .000 | | .000 |
| | <i>A. aspera</i> | .000 | .000 | .000 | .000 | |

Total Variance Explained

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
|-----------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|-----------------------------------|---------------|--------------|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 3.591 | 71.817 | 71.817 | 3.591 | 71.817 | 71.817 | 2.520 | 50.403 | 50.403 |
| 2 | .778 | 15.550 | 87.367 | .778 | 15.550 | 87.367 | 1.848 | 36.965 | 87.367 |
| 3 | .412 | 8.233 | 95.601 | | | | | | |
| 4 | .169 | 3.375 | 98.976 | | | | | | |
| 5 | .051 | 1.024 | 100.000 | | | | | | |

Extraction Method: Principal Component Analysis.

| Component Matrix ^a | | |
|--|-----------|-------|
| | Component | |
| | 1 | 2 |
| <i>A. vera</i> | -.702 | .584 |
| <i>A. aristata</i> | .960 | .050 |
| <i>A. jukunda</i> | .866 | .392 |
| <i>A. albiflora</i> | .775 | -.390 |
| <i>A. asparata</i> | .909 | .358 |
| Extraction Method: Principal Component Analysis. | | |
| a. 2 components extracted. | | |

| Proximity Matrix | | | | | |
|---------------------|-------------------|--------------------|-------------------|---------------------|------------------|
| Case | Matrix File Input | | | | |
| | <i>A. vera</i> | <i>A. aristata</i> | <i>A. jukunda</i> | <i>A. albiflora</i> | <i>A. aspera</i> |
| <i>A. vera</i> | .000 | 195.082 | 170.410 | 189.330 | 173.536 |
| <i>A. aristata</i> | 195.082 | .000 | 25.258 | 35.064 | 12.139 |
| <i>A. jukunda</i> | 170.410 | 25.258 | .000 | 59.619 | 14.279 |
| <i>A. albiflora</i> | 189.330 | 35.064 | 59.619 | .000 | 55.678 |
| <i>A. asparata</i> | 173.536 | 12.139 | 14.279 | 55.678 | .000 |

| Agglomeration Schedule | | | | | | |
|------------------------|------------------|-----------|--------------|-----------------------------|-----------|------------|
| Stage | Cluster Combined | | Coefficients | Stage Cluster First Appears | | Next Stage |
| | Cluster 1 | Cluster 2 | | Cluster 1 | Cluster 2 | |
| 1 | 2 | 5 | 12.139 | 0 | 0 | 2 |
| 2 | 2 | 3 | 19.769 | 1 | 0 | 3 |
| 3 | 2 | 4 | 50.120 | 2 | 0 | 4 |
| 4 | 1 | 2 | 182.090 | 0 | 3 | 0 |