

Table S4. Summary of F-statistics and p-values from two-way analysis of variance comparing the effect of packaging on VOC emitted from marijuana at 5 min, 1 h, and 68 h extraction times.

| | R ² | Packaging | | Ext. Time | | | |
|--|----------------|-------------|---------|-------------|---------|---------|--------|
| | | F-Statistic | p-value | F-Statistic | p-value | | |
| (-)-Globulol | 0.987 | 51.765 | 0.019 | 1.000 | 0.423 | 77.148 | 0.013† |
| (+)-4-Carene | 0.817 | 2.980 | 0.261 | 1.000 | 0.423 | 3.970 | 0.201 |
| (+)-calarene | 0.657 | 1.275 | 0.468 | 1.824 | 0.309 | 1.000 | 0.500 |
| (+)-nerolidol | 0.998 | 310.437 | 0.003 | 1.000 | 0.423 | 465.156 | 0.002† |
| (+)-sativene | 0.302 | 0.288 | 0.834 | 0.085 | 0.798 | 0.390 | 0.719 |
| 1-(3-methylphenyl)-ethanone | 0.600 | 1.000 | 0.535 | 1.000 | 0.423 | 1.000 | 0.500 |
| 1,1-dimethyl-hydrazine | 0.423 | 0.489 | 0.725 | 0.012 | 0.922 | 0.728 | 0.579 |
| 1,3,5-triazine-2,4,6-triamine | 0.914 | 7.097 | 0.126 | 1.000 | 0.423 | 10.145 | 0.090 |
| 1,3-dichlorobenzene | 0.957 | 14.855 | 0.064 | 1.000 | 0.423 | 21.782 | 0.044◇ |
| 1-butanol | 0.979 | 30.556 | 0.032 | 1.000 | 0.423 | 45.335 | 0.022† |
| 1-butoxy-2-propanol | 0.600 | 1.000 | 0.535 | 1.000 | 0.423 | 1.000 | 0.500 |
| 1-hexanol | 0.961 | 16.559 | 0.057 | 1.000 | 0.423 | 24.338 | 0.039† |
| 1-Propanamine, 3-dibenzo[b,e]thiepin-11(6H)-ylidene-N,N-dimethyl-, S-oxide | 0.600 | 1.000 | 0.535 | 1.000 | 0.423 | 1.000 | 0.500 |
| 2,3,4-trimethylpentane | 0.254 | 0.227 | 0.872 | 0.006 | 0.943 | 0.338 | 0.748 |
| 2,4-di-tert-butylphenol | 0.927 | 8.506 | 0.107 | 1.000 | 0.423 | 12.259 | 0.075 |
| 2,6-dimethylquinoline | 0.952 | 13.284 | 0.071 | 1.000 | 0.423 | 19.425 | 0.049◇ |
| 2-butoxyethanol | 0.834 | 3.353 | 0.238 | 1.000 | 0.423 | 4.529 | 0.181 |
| 2-chloroacetophenone | 0.712 | 1.646 | 0.400 | 3.183 | 0.216 | 0.878 | 0.533 |
| 2-ethenyl-1,3-dimethylbenzene | 0.766 | 2.180 | 0.330 | 1.000 | 0.423 | 2.771 | 0.265 |
| 2-ethoxyethanol | 0.793 | 2.554 | 0.294 | 1.000 | 0.423 | 3.331 | 0.231 |
| 2-ethylhexanol | 0.962 | 16.695 | 0.057 | 2.675 | 0.244 | 23.706 | 0.040‡ |
| 2-heptanone | 0.998 | 295.779 | 0.003 | 1.000 | 0.423 | 443.169 | 0.002† |
| 2-isopropenyl-3-methylpyrazine | 0.558 | 0.842 | 0.583 | 0.796 | 0.466 | 0.864 | 0.536 |
| 2-methyl naphthalene | 0.785 | 2.428 | 0.305 | 1.000 | 0.423 | 3.142 | 0.241 |
| 2-methyl-1H-imidazole | 0.965 | 18.596 | 0.051 | 1.000 | 0.423 | 27.395 | 0.035† |
| 2-methylaziridine | 0.303 | 0.289 | 0.833 | 0.155 | 0.732 | 0.357 | 0.737 |
| 2-methylpentane | 0.730 | 1.803 | 0.376 | 0.753 | 0.477 | 2.328 | 0.300 |
| 2-nitropropane | 0.715 | 1.676 | 0.395 | 3.028 | 0.224 | 1.000 | 0.500 |
| 2-phenoxyethanol | 0.692 | 1.497 | 0.424 | 1.000 | 0.423 | 1.746 | 0.364 |
| 3,4,5-trimethyl-1-hexene | 0.699 | 1.552 | 0.415 | 2.655 | 0.245 | 1.000 | 0.500 |
| 3-methylpentane | 0.712 | 1.652 | 0.399 | 0.985 | 0.426 | 1.986 | 0.335 |
| 3-pentanol | 0.600 | 1.000 | 0.535 | 1.000 | 0.423 | 1.000 | 0.500 |
| 4-methyldecane | 0.678 | 1.406 | 0.441 | 2.219 | 0.275 | 1.000 | 0.500 |
| 4-methylpyrimidine | 0.877 | 4.774 | 0.178 | 1.000 | 0.423 | 6.660 | 0.131 |
| 4-pyridinamine | 0.974 | 25.105 | 0.039 | 1.000 | 0.423 | 37.157 | 0.026† |
| 5-methylindane | 0.600 | 1.000 | 0.535 | 1.000 | 0.423 | 1.000 | 0.500 |
| Acetaldehyde | 0.415 | 0.472 | 0.733 | 0.322 | 0.628 | 0.548 | 0.646 |
| Acetamide | 0.694 | 1.509 | 0.422 | 1.000 | 0.423 | 1.764 | 0.362 |
| Acetic acid | 0.960 | 15.92 | 0.060 | 2.216 | 0.275 | 22.773 | 0.042‡ |
| Acetone | 0.474 | 0.600 | 0.674 | 0.027 | 0.885 | 0.887 | 0.530 |
| Acetophenone | 0.845 | 3.629 | 0.224 | 1.000 | 0.423 | 4.943 | 0.168 |
| Aromadendrene | 0.904 | 6.245 | 0.141 | 0.953 | 0.432 | 8.891 | 0.101 |
| Benzaldehyde | 0.937 | 9.852 | 0.094 | 1.034 | 0.416 | 14.261 | 0.066 |
| Benzonitrile | 0.889 | 5.319 | 0.162 | 1.000 | 0.423 | 7.479 | 0.118 |
| Benzophenone | 0.994 | 103.841 | 0.010 | 1.000 | 0.423 | 155.261 | 0.006† |
| Benzyl acetate | 0.797 | 2.624 | 0.288 | 1.000 | 0.423 | 3.436 | 0.225 |

| | R ² | F-Statistic | p-value | Packaging | | Ext. Time | |
|--------------------------------|----------------|-------------|---------|-------------|---------|-------------|---------|
| | | | | F-Statistic | p-value | F-Statistic | p-value |
| Benzyl Alcohol | 0.977 | 28.582 | 0.034 | 0.235 | 0.676 | 42.755 | 0.023† |
| Benzyl formate | 0.744 | 1.937 | 0.358 | 1.000 | 0.423 | 2.406 | 0.294 |
| Benzyl nitrile | 0.976 | 26.564 | 0.036 | 1.000 | 0.423 | 39.345 | 0.025† |
| Betahistine | 0.600 | 1.000 | 0.535 | 1.000 | 0.423 | 1.000 | 0.500 |
| Butane | 0.376 | 0.401 | 0.770 | 0.230 | 0.679 | 0.487 | 0.673 |
| Butyl formate | 0.687 | 1.466 | 0.430 | 2.399 | 0.262 | 1.000 | 0.500 |
| Camphene | 0.988 | 55.008 | 0.018 | 2.939 | 0.229 | 81.043 | 0.012† |
| Caryophyllene oxide | 0.949 | 12.413 | 0.075 | 0.934 | 0.436 | 18.152 | 0.052 |
| cis-2-pinanol | 0.986 | 45.961 | 0.021 | 1.000 | 0.423 | 68.441 | 0.014† |
| Citronellolformate | 0.971 | 22.408 | 0.043 | 1.000 | 0.423 | 33.111 | 0.029† |
| Decanal | 0.772 | 2.256 | 0.322 | 1.000 | 0.423 | 2.885 | 0.257 |
| Diacetone alcohol | 0.730 | 1.804 | 0.376 | 3.413 | 0.206 | 1.000 | 0.500 |
| Diethyl Phthalate | 0.764 | 2.161 | 0.332 | 1.000 | 0.423 | 2.742 | 0.267 |
| Dimethylbenzylcarbinyl acetate | 0.939 | 10.246 | 0.090 | 1.000 | 0.423 | 14.869 | 0.063 |
| Dimethylpyrazine | 0.989 | 60.462 | 0.016 | 1.000 | 0.423 | 90.193 | 0.011† |
| Dimethylsulfide | 0.702 | 1.567 | 0.412 | 2.700 | 0.242 | 1.000 | 0.500 |
| Dimethylsulfone | 0.631 | 1.140 | 0.499 | 1.421 | 0.356 | 1.000 | 0.500 |
| DL-carvone | 0.851 | 3.814 | 0.215 | 1.000 | 0.423 | 5.221 | 0.161 |
| Dodecane | 0.730 | 1.804 | 0.376 | 1.000 | 0.423 | 2.206 | 0.312 |
| Dyclocaïne | 0.731 | 1.813 | 0.375 | 3.439 | 0.205 | 1.000 | 0.500 |
| Ethanol | 0.571 | 0.889 | 0.568 | 0.052 | 0.841 | 1.308 | 0.433 |
| Ethylene oxide | 0.737 | 1.872 | 0.367 | 1.183 | 0.390 | 2.217 | 0.311 |
| Ethylenediamine | 0.685 | 1.449 | 0.433 | 0.017 | 0.909 | 2.165 | 0.316 |
| Ethylenimine | 0.690 | 1.484 | 0.427 | 2.451 | 0.258 | 1.000 | 0.500 |
| Fenchyl alcohol | 0.824 | 3.122 | 0.252 | 1.000 | 0.423 | 4.183 | 0.193 |
| Formic acid | 0.600 | 1.000 | 0.535 | 1.000 | 0.423 | 1.000 | 0.500 |
| Furfural | 0.996 | 163.606 | 0.006 | 1.000 | 0.423 | 244.909 | 0.004† |
| Heptanal | 0.955 | 14.188 | 0.067 | 1.000 | 0.423 | 20.782 | 0.046◇ |
| Hexanal | 0.981 | 35.257 | 0.028 | 1.630 | 0.330 | 52.070 | 0.019† |
| Hydrazine | 0.956 | 14.586 | 0.065 | 15.147 | 0.060 | 14.306 | 0.065 |
| Isoamyl alcohol | 0.600 | 1.000 | 0.535 | 1.000 | 0.423 | 1.000 | 0.500 |
| Isobornyl thiocynoacetate | 0.600 | 1.000 | 0.535 | 1.000 | 0.423 | 1.000 | 0.500 |
| Isobutane | 0.706 | 1.604 | 0.406 | 0.194 | 0.702 | 2.309 | 0.302 |
| Isobutyraldehyde | 0.595 | 0.981 | 0.541 | 0.975 | 0.427 | 0.984 | 0.504 |
| Isocyanatomethane | 0.750 | 1.998 | 0.351 | 3.994 | 0.184 | 1.000 | 0.500 |
| Isoprene | 0.789 | 2.499 | 0.299 | 2.204 | 0.276 | 2.647 | 0.274 |
| Limonene | 0.992 | 78.567 | 0.013 | 3.839 | 0.189 | 115.931 | 0.009† |
| Linalool | 0.909 | 6.654 | 0.133 | 1.066 | 0.410 | 9.448 | 0.096 |
| m-cymene | 0.828 | 3.200 | 0.247 | 2.580 | 0.249 | 3.510 | 0.222 |
| Methacrolein | 0.954 | 13.700 | 0.069 | 0.024 | 0.892 | 20.537 | 0.046‡ |
| Methyl acetylsalicylate | 0.781 | 2.382 | 0.309 | 1.000 | 0.423 | 3.072 | 0.246 |
| Methyl anthranilate | 0.958 | 15.381 | 0.062 | 1.000 | 0.423 | 22.572 | 0.042◇ |
| Methyl benzoate | 0.970 | 21.864 | 0.044 | 1.000 | 0.423 | 32.296 | 0.030† |
| Methyl heptadienone | 0.713 | 1.653 | 0.398 | 1.000 | 0.423 | 1.980 | 0.336 |
| Methyl mercaptan | 0.946 | 11.730 | 0.080 | 1.000 | 0.423 | 17.095 | 0.055 |
| Methyl salicylate | 0.992 | 81.765 | 0.012 | 1.000 | 0.423 | 122.148 | 0.008† |
| Methylene chloride | 0.856 | 3.959 | 0.208 | 4.542 | 0.167 | 3.668 | 0.214 |
| Methylisohexenyl ketone | 0.986 | 48.075 | 0.020 | 1.466 | 0.350 | 71.380 | 0.014† |
| m-tert-butylphenol | 0.675 | 1.384 | 0.445 | 2.153 | 0.280 | 1.000 | 0.500 |
| Myrcene | 0.959 | 15.512 | 0.061 | 1.308 | 0.371 | 22.614 | 0.042‡ |
| Nerolidol | 0.991 | 74.032 | 0.013 | 1.000 | 0.423 | 110.548 | 0.009† |
| Nonane | 0.647 | 1.222 | 0.480 | 1.000 | 0.423 | 1.332 | 0.429 |
| Octanal | 0.981 | 33.568 | 0.029 | 1.000 | 0.423 | 49.852 | 0.020† |

| | R ² | | | Packaging | | Ext. Time | |
|---------------------|----------------|-------------|---------|-------------|---------|-------------|---------|
| | | F-Statistic | p-value | F-Statistic | p-value | F-Statistic | p-value |
| Pentanal | 0.702 | 1.570 | 0.412 | 1.000 | 0.423 | 1.854 | 0.350 |
| Phenol | 0.676 | 1.389 | 0.445 | 1.000 | 0.423 | 1.583 | 0.387 |
| Phenylethyl alcohol | 0.999 | 993.769 | 0.001 | 1.000 | 0.423 | 1490.154 | 0.001† |
| Piperidine | 0.600 | 1.000 | 0.535 | 1.000 | 0.423 | 1.000 | 0.500 |
| Propanal | 0.871 | 4.514 | 0.187 | 3.290 | 0.211 | 5.126 | 0.163 |
| p-tert-butylphenol | 0.600 | 1.000 | 0.535 | 1.000 | 0.423 | 1.000 | 0.500 |
| Sabinene | 0.309 | 0.297 | 0.829 | 0.097 | 0.785 | 0.398 | 0.715 |
| Salicylaldehyde | 0.902 | 6.126 | 0.144 | 1.000 | 0.423 | 8.689 | 0.103 |
| Styrene | 0.870 | 4.465 | 0.188 | 1.000 | 0.423 | 6.197 | 0.139 |
| tert-butanol | 0.672 | 1.367 | 0.449 | 1.082 | 0.408 | 1.510 | 0.398 |
| tert-butyl-benzene | 0.998 | 280.293 | 0.004 | 1.000 | 0.423 | 419.939 | 0.002† |
| Tridecane | 0.759 | 2.102 | 0.338 | 1.000 | 0.423 | 2.653 | 0.274 |
| Tyramine | 0.833 | 3.319 | 0.240 | 0.680 | 0.496 | 4.638 | 0.177 |
| Undecane | 0.748 | 1.984 | 0.352 | 1.000 | 0.423 | 2.476 | 0.288 |
| Valencene | 0.883 | 5.022 | 0.171 | 0.181 | 0.712 | 7.442 | 0.118 |
| Verbenone | 0.668 | 1.341 | 0.454 | 2.092 | 0.285 | 0.966 | 0.509 |
| α-bisabolol | 0.998 | 288.108 | 0.003 | 0.832 | 0.458 | 431.746 | 0.002† |
| α-cedrene | 0.564 | 0.862 | 0.576 | 0.827 | 0.459 | 0.880 | 0.532 |
| α-cubebene | 0.952 | 13.256 | 0.071 | 1.000 | 0.423 | 19.384 | 0.049◇ |
| α-guaiene | 0.939 | 10.314 | 0.090 | 3.260 | 0.213 | 13.841 | 0.067 |
| α-gurjunene | 0.636 | 1.163 | 0.493 | 1.047 | 0.414 | 1.222 | 0.450 |
| α-humulene | 0.813 | 2.896 | 0.267 | 0.037 | 0.865 | 4.326 | 0.188 |
| α-ionol | 0.981 | 33.639 | 0.029 | 1.000 | 0.423 | 49.958 | 0.020† |
| α-longipinene | 0.984 | 40.155 | 0.024 | 1.000 | 0.423 | 59.733 | 0.016† |
| α-phellandrene | 0.535 | 0.767 | 0.609 | 0.564 | 0.531 | 0.869 | 0.535 |
| α-pinene | 0.965 | 18.134 | 0.053 | 1.343 | 0.366 | 26.529 | 0.036‡ |
| α-terpinene | 0.923 | 7.960 | 0.114 | 1.000 | 0.423 | 11.440 | 0.080 |
| α-terpineol | 0.872 | 4.560 | 0.185 | 0.935 | 0.435 | 6.372 | 0.136 |
| β-caryophyllene | 0.995 | 133.751 | 0.007 | 7.561 | 0.111 | 196.847 | 0.005† |
| β-cedrene | 0.992 | 84.259 | 0.012 | 1.000 | 0.423 | 125.888 | 0.008† |
| β-pinene | 1.000 | 2781.634 | 0.000 | 1.000 | 0.423 | 4171.951 | 0.000† |
| β-selinene | 0.971 | 22.028 | 0.044 | 0.041 | 0.858 | 33.021 | 0.029† |
| γ-gurjunene | 0.985 | 44.322 | 0.022 | 0.143 | 0.742 | 66.412 | 0.015† |
| γ-terpinene | 0.310 | 0.300 | 0.827 | 0.100 | 0.782 | 0.400 | 0.714 |
| δ-3-carene | 0.995 | 144.384 | 0.007 | 1.000 | 0.423 | 216.076 | 0.005† |

(†, 19 total) indicates significant difference in surrogate concentration of VOC at 68 h sampling time from the other two time points Tukey HSD. (‡, 5 total) indicates significant difference in surrogate concentration of the VOC between 5 min and 68 h only, (◇, 5 total) indicates no significance between extraction times after the pairwise comparison test. Statistical analysis software: XLStat V 2014.5.01 (New York, NY, USA)