

Table S1: Changes in *trans* isomeric fatty acids in five different plant-based oils in fresh samples and after one (1H), five (5H) and ten heating sequences (10H).

| | Palm oil | | Soybean oil | | Rapeseed oil | | Sunflower oil | | EV Olive oil | |
|--------------------|--------------|-------|--------------|-------|--------------|-------|---------------|-------|--------------|-------|
| | mean | SD | mean | SD | mean | SD | mean | SD | mean | SD |
| C18:1n-7/9t | | | | | | | | | | |
| Fresh | 0.075 | 0.003 | 0.036 | 0.002 | 0.026 | 0.009 | 0.030 | 0.003 | 0.046 | 0.022 |
| 1H | 0.099 | 0.004 | 0.084 | 0.055 | 0.066 | 0.004 | 0.038 | 0.005 | 0.069 | 0.011 |
| 5H | 0.111 | 0.003 | 0.086 | 0.025 | 0.080 | 0.010 | 0.057 | 0.003 | 0.068 | 0.002 |
| 10H | 0.136 | 0.011 | 0.091 | 0.037 | 0.102 | 0.003 | 0.070 | 0.002 | 0.103 | 0.015 |
| C18:2n-6tt | | | | | | | | | | |
| Fresh | 0.006 | 0.000 | 0.005 | 0.001 | n.d. | - | 0.004 | 0.000 | n.d. | - |
| 1H | 0.005 | 0.002 | 0.004 | 0.002 | n.d. | - | 0.003 | 0.001 | n.d. | - |
| 5H | 0.006 | 0.001 | 0.008 | 0.001 | n.d. | - | 0.007 | 0.001 | n.d. | - |
| 10H | 0.007 | 0.001 | 0.011 | 0.003 | 0.002 | 0.001 | 0.011 | 0.001 | 0.002 | 0.001 |
| C20:1n-9t | | | | | | | | | | |
| Fresh | 0.024 | 0.002 | 0.050 | 0.002 | 0.023 | 0.011 | 0.018 | 0.002 | 0.010 | 0.009 |
| 1H | 0.029 | 0.004 | 0.072 | 0.029 | 0.032 | 0.006 | 0.028 | 0.003 | 0.026 | 0.011 |
| 5H | 0.043 | 0.006 | 0.073 | 0.006 | 0.053 | 0.008 | 0.041 | 0.005 | 0.065 | 0.001 |
| 10H | 0.069 | 0.008 | 0.061 | 0.005 | 0.055 | 0.027 | 0.051 | 0.012 | 0.061 | 0.006 |

Each data is calculated from six different chromatograms, data are **mean** (SD); n.d. denotes under detection limit