

Supplementary material

Table S1. Correlation matrix between analytical parameters in different samples of oil investigated.

Analytical parameter	Pentanal	Hexanal	Heptanal	Octanal	Nonanal	(E)-2-Propenal	(E)-2-butenal	(E)-2-pentenal	(E)-2-hexenal	(E)-2-heptenal	(E)-2-octenal	(E)-2-nonenal	(E)-2-decenal	(E)-2-undecenal	(E,E)-2,4-Hexadienal	(Z,E)-2,4-Heptadienal	(E,E)-2,4-Heptadienal	(Z,E)-2,4-Nonadienal	(E,E)-2,4-Nonadienal	(Z,E)-2,4-Decadienal	(E,E)-2,4-Decadienal	ABS 390nm	ABS 532nm	Oleic acid	Linoleic acid	α -linolenic acid	DHA	
Pentanal	1.000																											
Hexanal	0.829***	1.000																										
Heptanal	0.366**	0.576***	1.000																									
Octanal	0.207	0.471***	0.919***	1.000																								
Nonanal	0.131	0.491***	0.896***	0.969***	1.000																							
(E)-2-propenal	0.014	0.012	-0.131	-0.187	-0.153	1.000																						
(E)-2-butenal	-0.231*	-0.149	-0.058	-0.070	-0.032	0.685***	1.000																					
(E)-2-pentenal	-0.120	-0.090	0.133	0.036	0.035	0.742***	0.666***	1.000																				
(E)-2-hexenal	0.856***	0.954***	0.425***	0.339**	0.345**	0.089	-0.092	-0.075	1.000																			
(E)-2-heptenal	0.864***	0.961***	0.386**	0.304**	0.315**	0.052	-0.173	-0.118	0.978***	1.000																		
(E)-2-octenal	0.785***	0.981***	0.641***	0.567***	0.579***	-0.032	-0.195	-0.091	0.921***	0.933***	1.000																	
(E)-2-nonenal	0.255*	0.536***	0.935***	0.875***	0.891***	-0.142	-0.077	0.196	0.389**	0.363**	0.614***	1.000																
(E)-2-decenal	0.254*	0.523***	0.923***	0.814***	0.818***	-0.150	-0.061	0.262*	0.362**	0.344**	0.583***	0.947***	1.000															
(E)-2-undecenal	0.193	0.516***	0.944***	0.862***	0.896***	-0.148	-0.047	0.186	0.343**	0.319**	0.587***	0.964***	0.966***	1.000														
(E,E)-2,4-Hexadienal	-0.258*	-0.230*	-0.185	-0.220*	-0.172	0.861***	0.453***	0.701***	-0.193	-0.219*	-0.235*	-0.152	-0.170	-0.148	1.000													
(Z,E)-2,4-Heptadienal	-0.213*	-0.139	-0.153	-0.180	-0.130	0.768***	0.979***	0.689***	-0.070	-0.140	-0.195	-0.165	-0.137	-0.128	0.541***	1.000												
(E,E)-2,4-Heptadienal	-0.245*	-0.172	-0.140	-0.159	-0.114	0.711***	0.990***	0.668***	-0.106	-0.180	-0.227*	-0.152	-0.121	-0.116	0.478***	0.994***	1.000											
(Z,E)-2,4-Nonadienal	0.790***	0.805***	0.022	-0.060	-0.046	0.116	-0.166	-0.186	0.856***	0.888***	0.759***	-0.003	-0.020	-0.036	-0.117	-0.085	-0.142	1.000										
(E,E)-2,4-Nonadienal	0.709***	0.886***	0.231*	0.143	0.209*	0.078	-0.157	-0.186	0.874***	0.901***	0.863***	0.229*	0.194	0.228*	-0.113	-0.092	-0.148	0.939***	1.000									
(Z,E)-2,4-Decadienal	0.800***	0.912***	0.318**	0.260*	0.262*	0.068	-0.120	-0.098	0.901***	0.924***	0.904***	0.285*	0.273*	0.254*	-0.169	-0.079	-0.125	0.930***	0.940***	1.000								
(E,E)-2,4-Decadienal	0.779***	0.895***	0.277*	0.204	0.213*	0.077	-0.111	-0.077	0.881***	0.907***	0.879***	0.259*	0.260*	0.231*	-0.152	-0.062	-0.109	0.934***	0.941***	0.995***	1.000							
ABS 390 nm	0.455***	0.507***	-0.056	-0.142	-0.100	0.675***	0.589***	0.378**	0.595***	0.567***	0.434***	-0.089	-0.092	-0.093	0.325**	0.658***	0.613***	0.667***	0.619***	0.621***	0.631***	1.000						
ABS 532 nm	0.053	0.126	0.387**	0.357**	0.315**	0.556***	0.546***	0.667***	0.098	0.042	0.164	0.339**	0.351**	0.338**	0.449***	0.515***	0.501***	-0.060	-0.014	0.107	0.087	0.396**	1.000					
Oleic acid	0.306**	0.326**	0.649***	0.603***	0.584***	0.170	0.090	0.178	0.257*	0.208	0.337**	0.558***	0.463***	0.542***	0.103	0.036	0.038	-0.062	0.053	0.095	0.048	0.041	0.205	1.000				
Linoleic acid	0.865***	0.914***	0.272*	0.167	0.174	0.153	-0.019	-0.048	0.955***	0.967***	0.854***	0.233*	0.240*	0.197	-0.187	0.024	-0.013	0.902***	0.873***	0.905***	0.898***	0.693***	0.045	0.184	1.000			
α -linolenic acid	-0.202	-0.147	-0.177	-0.190	-0.148	0.464***	0.879***	0.420***	-0.082	-0.142	-0.209	-0.187	-0.149	-0.145	0.148	0.872***	0.895***	-0.098	-0.112	-0.099	-0.083	0.558***	0.291*	0.051	0.049	1.000		
DHA	-0.170	-0.193	-0.156	-0.184	-0.163	0.693***	0.197	0.574***	-0.156	-0.171	-0.183	-0.123	-0.152	-0.143	0.930***	0.284*	0.218*	-0.078	-0.093	-0.135	-0.123	0.168	0.302**	0.115	-0.180	-0.092	1.000	

*** p<0.001; ** p<0.01; * p< 0.05