

Table S1. Pearson Correlation among the chemical parameters investigated and the storage time (1–13 years). The critical value is 0.755 (df = 5, α = 0.05). In bold are the significant correlation coefficients.

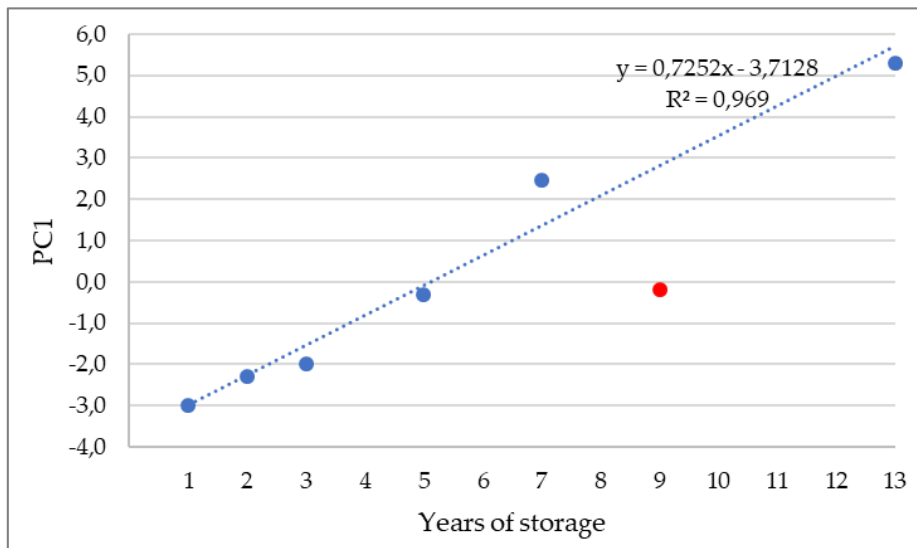
Parameters	Storage Time	L*	a*	b*	Chrome	Hue	DO 420 %	DO 420 nm	GSH	TP	PP	Ratio TP/PP	OD 280 nm	OD 320 nm	Iron	Copper
Storage time	1.00															
L*	-0.96	1.00														
a*	0.23	-0.44	1.00													
b*	0.98	-0.99	0.32	1.00												
Chroma	0.98	-0.99	0.31	1.00	1.00											
Hue	-0.95	0.97	-0.43	-0.97	-0.96	1.00										
OD 420 %	-0.97	0.96	-0.34	-0.97	-0.97	0.99	1.00									
OD 420 nm	0.97	-1.00	0.35	1.00	1.00	-0.97	-0.97	1.00								
GSH	-0.63	0.61	-0.53	-0.58	-0.57	0.65	0.67	-0.58	1.00							
TP	0.36	-0.33	-0.43	0.42	0.42	-0.28	-0.31	0.39	0.30	1.00						
PP	0.00	0.10	-0.53	-0.03	-0.02	0.17	0.09	-0.06	0.16	0.67	1.00					
Ratio TP/PP	-0.06	-0.05	0.58	-0.03	-0.04	-0.18	-0.10	-0.01	-0.15	-0.59	-0.89	1.00				
OD 280 nm	0.60	-0.49	-0.45	0.59	0.59	-0.45	-0.51	0.56	0.00	0.90	0.70	-0.68	1.00			
OD 320 nm	-0.13	0.36	-0.48	-0.31	-0.30	0.32	0.21	-0.32	-0.17	-0.09	0.57	-0.50	0.17	1.00		
Iron	0.74	-0.77	0.32	0.74	0.74	-0.66	-0.65	0.76	-0.20	0.25	-0.15	-0.01	0.40	-0.34	1.00	
Copper	0.28	-0.10	-0.52	0.17	0.17	-0.09	-0.15	0.16	0.33	0.25	0.02	-0.14	0.41	0.15	0.51	1.00

Legend: OD, optical density; GSH, glutathione; TP, total phenols; PP, polymeric phenols.

Table S2. Pearson Correlation among the aroma compounds investigated and the storage time (1–13 years). The critical value is 0.755 (df = 5, $\alpha = 0.05$).

ST	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36			
ST	1.00																																						
1	-0.64	1.00																																					
2	-0.06	-0.24	1.00																																				
3	-0.43	0.55	-0.71	1.00																																			
4	-0.40	0.42	0.13	0.52	1.00																																		
5	-0.72	0.72	-0.39	0.78	0.65	1.00																																	
6	0.13	0.14	-0.16	-0.02	-0.49	-0.28	1.00																																
7	-0.20	-0.04	0.49	0.03	0.82	0.30	-0.77	1.00																															
8	0.61	-0.86	0.05	-0.62	-0.79	-0.73	0.14	-0.40	1.00																														
9	-0.26	0.35	0.63	-0.13	0.60	0.25	-0.04	0.57	-0.50	1.00																													
10	0.57	-0.54	0.57	-0.87	-0.53	-0.78	0.38	-0.20	0.64	0.23	1.00																												
11	0.07	0.65	-0.56	0.37	0.06	0.42	0.23	-0.31	-0.38	0.09	-0.21	1.00																											
12	-0.79	0.85	-0.41	0.82	0.57	0.96	-0.07	0.12	-0.80	0.21	-0.79	0.44	1.00																										
13	-0.66	0.16	0.57	0.11	0.65	0.40	-0.27	0.68	-0.44	0.65	-0.15	-0.49	0.36	1.00																									
14	-0.44	0.29	-0.49	0.20	-0.52	0.29	0.28	-0.66	0.15	-0.48	-0.23	0.23	0.37	-0.25	1.00																								
15	0.87	-0.47	-0.05	-0.55	-0.66	-0.71	0.44	-0.51	0.67	-0.19	0.76	0.25	-0.72	-0.72	-0.09	1.00																							
16	-0.67	0.69	-0.30	0.67	0.63	0.98	-0.26	0.33	-0.67	0.38	-0.63	0.45	0.90	0.42	0.26	-0.61	1.00																						
17	-0.63	0.20	0.58	0.13	0.73	0.35	-0.44	0.78	-0.56	0.56	-0.30	-0.50	0.34	0.93	-0.38	-0.81	0.32	1.00																					
18	-0.59	0.95	-0.34	0.75	0.58	0.78	0.13	0.05	-0.92	0.33	-0.66	0.60	0.89	0.21	0.13	-0.53	0.72	0.26	1.00																				
19	0.77	-0.54	0.14	-0.33	-0.29	-0.77	0.48	-0.24	0.41	-0.10	0.57	-0.20	-0.71	-0.33	-0.54	0.65	-0.77	-0.31	-0.41	1.00																			
20	-0.69	0.88	-0.28	0.60	0.57	0.92	-0.26	0.24	-0.80	0.34	-0.67	0.59	0.91	0.26	0.29	-0.60	0.91	0.28	0.84	-0.81	1.00																		
21	-0.24	-0.02	0.12	0.19	0.60	0.33	-0.95	0.78	-0.32	0.01	-0.55	-0.27	0.18	0.34	-0.33	-0.61	0.25	0.57	0.04	-0.43	0.30	1.00																	
22	-0.67	0.90	-0.27	0.58	0.55	0.88	-0.25	0.21	-0.81	0.32	-0.67	0.61	0.89	0.22	0.29	-0.58	0.86	0.27	0.85	-0.79	1.00	0.30	1.00																
23	-0.61	0.82	-0.45	0.86	0.64	0.82	-0.17	0.18	-0.89	0.08	-0.90	0.43	0.90	0.21	0.13	-0.70	0.70	0.34	0.91	-0.51	0.82	0.36	0.82	1.00															

Figure S1. Relation between PC1 values and storage time (years).



The wine produced in 2009 was excluded from the linear modelling years of storage-PC1. Legend: Blue markers represented the wine samples produced in 2005, 2011, 2013, 2015, 2016 and 2017; red marker represented the wine sample produced in 2009.