Supplementary Table 2. Concentrations of Fe (mg/L) in Chardonnay wines, and concentrations (µg/L) of analysed LMWSCs and volatile aldehyde compounds in Chardonnay and Shiraz wines during production and bottle ageing process.

[a]**Chardonnay**	Control		LCu		HCu		LSO2		HSO2	
Fe										
PAF	0.068 ± 0.003	a	0.073 ± 0.003	a	0.070 ± 0.003	a	0.069 ± 0.002	a	0.072 ± 0	a
PCold	0.068 ± 0.012	a	0.053 ± 0.004	bc	0.049 ± 0.006	c	0.062 ± 0.005	ab	0.058 ± 0.001	abc
PB_nonB	0.048 ± 0.005	ab	0.047 ± 0.004	ab	0.041 ± 0.005	b	0.058 ± 0.009	a	0.053 ± 0.010	ab
PB_Bent	0.148 ± 0.019	b	0.163 ± 0.023	ab	0.133 ± 0.009	b	0.163 ± 0.018	ab	0.185 ± 0.004	a
DMS										
J	3.07 ± 0.14	a	3.07 ± 0.14	a	3.07 ± 0.14	a	3.07 ± 0.14	a	3.07 ± 0.14	a
PAF	4.09 ± 0.97	a	3.13 ± 0.21	b	3.12 ± 0.23	b	3.04 ± 0.24	b	3.01 ± 0.08	b
PCold	1.08 ± 0.00	b	0.61 ± 0.03	c	1.36 ± 0.09	a	0.83 ± 0.18	bc	1.10 ± 0.15	b
PB_nonB	0.82 ± 0.04	c	1.66 ± 0.30	b	1.16 ± 0.09	bc	2.39 ± 0.62	a	1.33 ± 0.39	bc
PB_Bent	1.42 ± 0.20	bc	1.61 ± 0.17	b	1.10 ± 0.12	c	2.25 ± 0.29	a	1.16 ± 0.08	c
15Mo_nonB	9.18 ± 0.72	a	10.03 ± 2.17	a	9.87 ± 1.42	a	9.92 ± 0.19	a	10.27 ± 0.30	a
15Mo_Bent	10.71 ± 0.60	a	10.61 ± 0.88	a	8.46 ± 1.60	c	9.52 ± 0.53	ab	10.34 ± 0.38	ab
benzaldehyde										
PAF	1.29 ± 0.22	ab	1.06 ± 0.07	b	1.60 ± 0.22	a	1.21 ± 0.11	ab	1.23 ± 0.25	ab
PCold	2.02 ± 0.26	a	1.92 ± 0.04	a	1.49 ± 0.15	a	1.91 ± 0.28	a	2.08 ± 0.14	a
PB_nonB	2.47 ± 0.45	ab	1.67 ± 0.38	b	2.14 ± 0.54	ab	2.91 ± 0.57	a	2.33 ± 0.15	ab
PB_Bent	2.03 ± 0.09	a	1.73 ± 0.30	a	2.38 ± 0.16	a	2.39 ± 0.33	a	2.43 ± 0.14	a
15Mo_nonB	3.35 ± 0.50	b	3.46 ± 0.26	b	5.33 ± 0.04	a	4.55 ± 0.51	a	4.99 ± 0.52	a
15Mo_Bent	3.86 ± 0.47	a	4.02 ± 0.42	a	3.88 ± 0.70	a	3.51 ± 0.05	a	3.74 ± 0.77	a
furfural										
PAF	1.21 ± 0.33	a	0.93 ± 0.25	a	1.03 ± 0.14	a	1.01 ± 0.11	a	0.84 ± 0.26	a
PCold	1.76 ± 0.21	b	2.13 ± 0.04	a	2.26 ± 0.25	a	1.45 ± 0.15	c	2.20 ± 0.13	a
PB_nonB	2.21 ± 0.34	ab	2.28 ± 0.35	ab	2.68 ± 0.10	a	2.32 ± 0.35	ab	2.07 ± 0.08	b
PB_Bent	2.66 ± 0.21	a	2.90 ± 0.56	a	3.30 ± 0.09	a	2.60 ± 0.45	a	2.70 ± 0.11	a
15Mo_nonB	53.46 ± 7.81	a	47.77 ± 7.06	a	53.73 ± 3.62	a	46.24 ± 4.66	a	43.52 ± 1.60	a
15Mo_Bent	46.86 ± 5.68	ab	49.06 ± 2.68	a	47.56 ± 2.11	ab	38.00 ± 2.02	c	41.82 ± 0.70	bc
5-methylfurfural										
PAF	0		0		0		0		0	
PCold	0		0		0		0		0	
PB_nonB	0		0		0		0		0	
PB_Bent	0		0		0		0		0	
15Mo_nonB	1.16 ± 0.08	ab	1.22 ± 0.00	ab	1.32 ± 0.17	a	1.06 ± 0.08	b	1.28 ± 0.10	ab
15Mo_Bent	0.98 ± 0.13	a	0.91 ± 0.04	a	1.11 ± 0.13	a	0.72 ± 0.08	b	1.01 ± 0.06	a
hexanal										
PAF	1.41 ± 0.11	a	1.34 ± 0.06	a	1.51 ± 0.10	a	1.36 ± 0.07	a	1.49 ± 0.13	a
PCold	1.36 ± 0.01	b	1.52 ± 0.09	ab	1.54 ± 0.03	a	1.60 ± 0.11	a	1.58 ± 0.13	a
PB_nonB	1.76 ± 0.11	ab	1.50 ± 0.10	c	1.58 ± 0.12	bc	1.68 ± 0.05	ab	1.82 ± 0.06	a
PB_Bent	2.20 ± 0.10	a	1.81 ± 0.13	b	1.98 ± 0.20	ab	2.10 ± 0.06	a	2.21 ± 0.07	a
15Mo_nonB	1.86 ± 0.06	a	1.79 ± 0.12	a	1.75 ± 0.04	a	1.88 ± 0.09	a	1.94 ± 0.13	a
15Mo_Bent	1.92 ± 0.06	b	2.02 ± 0.32	ab	1.88 ± 0.04	b	1.83 ± 0.01	b	2.32 ± 0.08	a
nonanal										
PAF	13.05 ± 0.92	b	9.49 ± 0.05	c	22.95 ± 1.04	a	11.27 ± 0.15	bc	14.24 ± 2.89	b
PCold	10.10 ± 0.58	c	13.30 ± 0.77	a	12.49 ± 1.09	ab	11.32 ± 1.33	bc	11.94 ± 0.78	ab
PB_nonB	10.39 ± 0.49	b	11.19 ± 0.22	b	15.40 ± 10.56	b	11.52 ± 1.12	b	35.42 ± 3.72	a
PB_Bent	12.70 ± 0.27	a	8.18 ± 0.48	b	9.00 ± 0.74	b	12.59 ± 0.14	a	13.20 ± 1.00	a
15Mo_nonB	12.66 ± 1.26	b	14.44 ± 0.64	a	15.27 ± 0.83	a	16.15 ± 0.99	a	16.03 ± 0.30	a
15Mo_Bent	12.31 ± 1.25	a	13.26 ± 1.70	a	14.65 ± 1.47	a	15.21 ± 1.41	a	15.41 ± 0.99	a
2-methylpropanal										
PAF	43.96 ± 0.51	a	44.88 ± 0.76	a	51.58 ± 14.58	a	47.98 ± 2.26	a	44.16 ± 4.79	a
PCold	53.18 ± 6.77	b	50.11 ± 2.84	b	58.91 ± 4.83	ab	53.85 ± 2.99	b	63.37 ± 3.49	a
PB_nonB	57.50 ± 5.25	ab	53.54 ± 2.96	b	63.62 ± 5.05	a	60.98 ± 5.09	ab	62.66 ± 2.01	a
PB_Bent	66.70 ± 7.78	a	65.12 ± 1.40	a	79.10 ± 24.06	a	72.12 ± 4.63	a	84.58 ± 1.78	a
15Mo_nonB	11.65 ± 0.71	a	11.67 ± 0.40	a	13.28 ± 2.49	a	12.54 ± 0.50	a	11.55 ± 1.51	a
15Mo_Bent	13.18 ± 1.71	a	13.48 ± 0.62	a	14.46 ± 3.31	a	13.33 ± 0.46	a	13.95 ± 0.23	a
3-methylbutanal										
PAF	135.33 ± 2.70	d	150.90 ± 1.18	c	186.96 ± 9.17	ab	181.12 ± 2.56	b	194.99 ± 3.13	a
PCold	150.90 ± 3.03	d	176.53 ± 10.31	c	197.47 ± 7.83	b	204.28 ± 1.62	b	232.99 ± 3.44	a
PB_nonB	161.69 ± 4.07	d	174.64 ± 2.78	c	203.90 ± 5.62	b	210.28 ± 3.87	b	230.91 ± 4.22	a

PB_Bent	174.67 ± 11.05	c	209.12 ± 12.76	b	229.51 ± 17.72	ab	238.13 ± 11.84	a	256.02 ± 3.68	a
15Mo_nonB	238.57 ± 3.23	b	257.75 ± 11.85	b	287.15 ± 12.44	a	281.07 ± 3.00	a	301.67 ± 16.73	a
15Mo_Bent	239.56 ± 4.80	d	274.86 ± 11.79	c	305.76 ± 16.60	b	290.29 ± 0.39	bc	330.59 ± 1.72	a
methional										
PAF	5.28 ± 0.28	b	6.66 ± 0.13	a	5.78 ± 0.32	b	5.22 ± 0.09	b	3.46 ± 0.36	c
PCold	5.89 ± 2.15	b	8.41 ± 0.77	a	8.46 ± 0.30	a	4.00 ± 0.57	b	4.33 ± 0.76	b
PB_nonB	3.73 ± 0.32	b	5.23 ± 0.51	b	7.10 ± 1.54	a	5.27 ± 0.20	b	4.89 ± 0.19	b
PB_Bent	6.35 ± 0.07	a	9.29 ± 1.60	a	9.33 ± 2.51	a	7.63 ± 0.44	a	6.75 ± 0.75	a
15Mo_nonB	35.51 ± 5.20	a	35.20 ± 2.55	a	30.56 ± 2.94	a	29.24 ± 2.38	a	31.60 ± 1.68	a
15Mo_Bent	31.09 ± 1.51	ab	29.02 ± 1.56	b	30.54 ± 1.80	ab	32.89 ± 1.76	a	32.29 ± 1.79	ab
2-phenylacetaldehyde										
PAF	3.45 ± 0.18	c	2.33 ± 0.05	e	2.85 ± 0.33	d	4.53 ± 0.22	b	5.30 ± 0.05	a
PCold	3.55 ± 0.41	c	2.51 ± 0.17	d	2.63 ± 0.30	d	4.52 ± 0.26	b	5.60 ± 0.27	a
PB_nonB	4.33 ± 0.07	c	2.55 ± 0.23	d	2.64 ± 0.66	d	5.36 ± 0.29	b	6.49 ± 0.26	a
PB_Bent	4.62 ± 0.02	bc	3.37 ± 0.02	c	3.33 ± 0.96	c	5.85 ± 0.75	ab	6.59 ± 0.73	a
15Mo_nonB	8.83 ± 0.34	bc	6.39 ± 0.58	d	8.21 ± 1.19	c	10.36 ± 0.35	a	9.97 ± 0.42	ab
15Mo_Bent	7.72 ± 0.62	c	6.93 ± 0.10	c	9.21 ± 0.29	b	9.49 ± 0.20	ab	10.22 ± 0.34	a
[a]**Shiraz**	Control		LCu		HCu		LSO2		HSO2	
DMS										
M	2.76 ± 0.14	a	2.76 ± 0.14	a	2.76 ± 0.14	a	2.76 ± 0.14	a	2.76 ± 0.14	a
PAF	2.76 ± 0.16	bc	2.87 ± 0.06	ab	2.97 ± 0.12	a	2.76 ± 0.07	bc	2.67 ± 0.02	c
PB	0.96 ± 0.06	a	0.90 ± 0.14	ab	0.75 ± 0.07	bc	0.77 ± 0.11	abc	0.63 ± 0.02	c
15Mo	17.60 ± 1.05	a	16.10 ± 0.74	a	16.95 ± 0.92	a	17.28 ± 0.90	a	16.29 ± 0.20	a
benzaldehyde										
PAF	6.84 ± 0.72	b	7.51 ± 1.04	ab	8.22 ± 0.35	a	8.06 ± 0.37	a	7.43 ± 0.30	ab
PB	7.53 ± 0.59	a	7.83 ± 0.33	a	7.92 ± 0.55	a	8.19 ± 0.23	a	8.10 ± 0.41	a
15Mo	1.53 ± 0.08	b	1.25 ± 0.19	c	1.14 ± 0.12	c	1.54 ± 0.10	b	1.86 ± 0.10	a
furfural										
PAF	2.84 ± 0.27	b	3.33 ± 0.43	ab	3.49 ± 0.06	ab	3.61 ± 0.48	a	3.60 ± 0.25	a
PB	4.04 ± 0.34	ab	3.58 ± 0.49	b	3.98 ± 0.37	ab	4.49 ± 0.21	a	3.80 ± 0.30	b
15Mo	22.64 ± 5.18	bc	33.45 ± 6.26	ab	36.99 ± 6.18	a	16.33 ± 1.24	c	28.55 ± 4.41	ab
5-methylfurfural										
PAF	0		0		0		0		0	
PB	0		0		0		0		0	
15Mo	1.28 ± 0.24	a	1.35 ± 0.26	a	1.20 ± 0.35	a	0.73 ± 0.07	a	0.91 ± 0.21	a
hexanal										
PAF	2.09 ± 0.05	b	3.01 ± 0.16	a	2.89 ± 0.38	a	2.49 ± 0.33	ab	2.56 ± 0.30	ab
PB	1.61 ± 0.14	a	1.68 ± 0.13	a	1.69 ± 0.07	a	1.64 ± 0.09	a	1.54 ± 0.06	a
15Mo	2.43 ± 0.22	a	2.12 ± 0.26	a	2.03 ± 0.26	a	2.10 ± 0.25	a	2.16 ± 0.29	a
nonanal										
PAF	5.32 ± 0.14	b	7.20 ± 1.47	a	6.70 ± 0.32	ab	5.72 ± 0.43	b	6.13 ± 0.58	ab
PB	5.48 ± 0.70	a	6.75 ± 1.59	a	5.55 ± 0.08	a	6.16 ± 1.05	a	5.01 ± 0.24	a
15Mo	7.42 ± 0.47	b	7.67 ± 0.49	b	21.24 ± 1.31	a	21.17 ± 0.97	a	22.06 ± 1.35	a
2-methylpropanal										
PAF	4.40 ± 0.13	a	4.19 ± 0.27	a	4.53 ± 0.09	a	4.43 ± 0.45	a	4.13 ± 0.20	a
PB	2.13 ± 0.18	a	2.13 ± 0.11	a	2.28 ± 0.10	a	1.83 ± 0.13	b	2.03 ± 0.21	ab
15Mo	6.55 ± 0.96	a	5.67 ± 0.91	a	5.12 ± 0.71	a	5.76 ± 0.19	a	5.12 ± 0.59	a
3-methylbutanal										
PAF	274.01 ± 11.43	b	321.90 ± 24.32	a	340.31 ± 20.11	a	336.54 ± 12.64	a	340.27 ± 3.23	a
PB	238.56 ± 30.12	a	247.58 ± 7.06	a	266.37 ± 15.62	a	233.34 ± 19.72	a	225.10 ± 26.72	a
15Mo	258.15 ± 24.41	a	221.21 ± 10.29	a	232.46 ± 18.21	a	239.86 ± 23.47	a	220.76 ± 41.88	a
methional										
PAF	6.20 ± 0.50	b	7.62 ± 0.64	a	6.65 ± 0.42	b	6.76 ± 0.39	b	6.64 ± 0.26	b
PB	4.80 ± 0.36	a	4.64 ± 0.37	a	4.45 ± 0.05	a	4.44 ± 0.23	a	3.86 ± 0.10	b
15Mo	169.75 ± 15.21	ab	177.82 ± 16.51	a	176.44 ± 10.61	a	143.02 ± 16.49	b	162.44 ± 6.45	ab
2-phenylacetaldehyde										
PAF	2.62 ± 0.36	c	3.59 ± 0.30	ab	3.77 ± 0.18	a	3.16 ± 0.25	b	3.24 ± 0.22	b
PB	1.56 ± 0.28	bc	2.00 ± 0.21	ab	2.21 ± 0.11	a	2.05 ± 0.29	a	1.52 ± 0.18	c
15Mo	8.86 ± 1.71	a	6.55 ± 1.09	b	7.66 ± 0.50	ab	6.69 ± 1.01	b	6.56 ± 0.73	b

[a] The significant difference ($P \leq 0.05$) among treatments was calculated across the row.