# SUPPLEMENTARY DATA

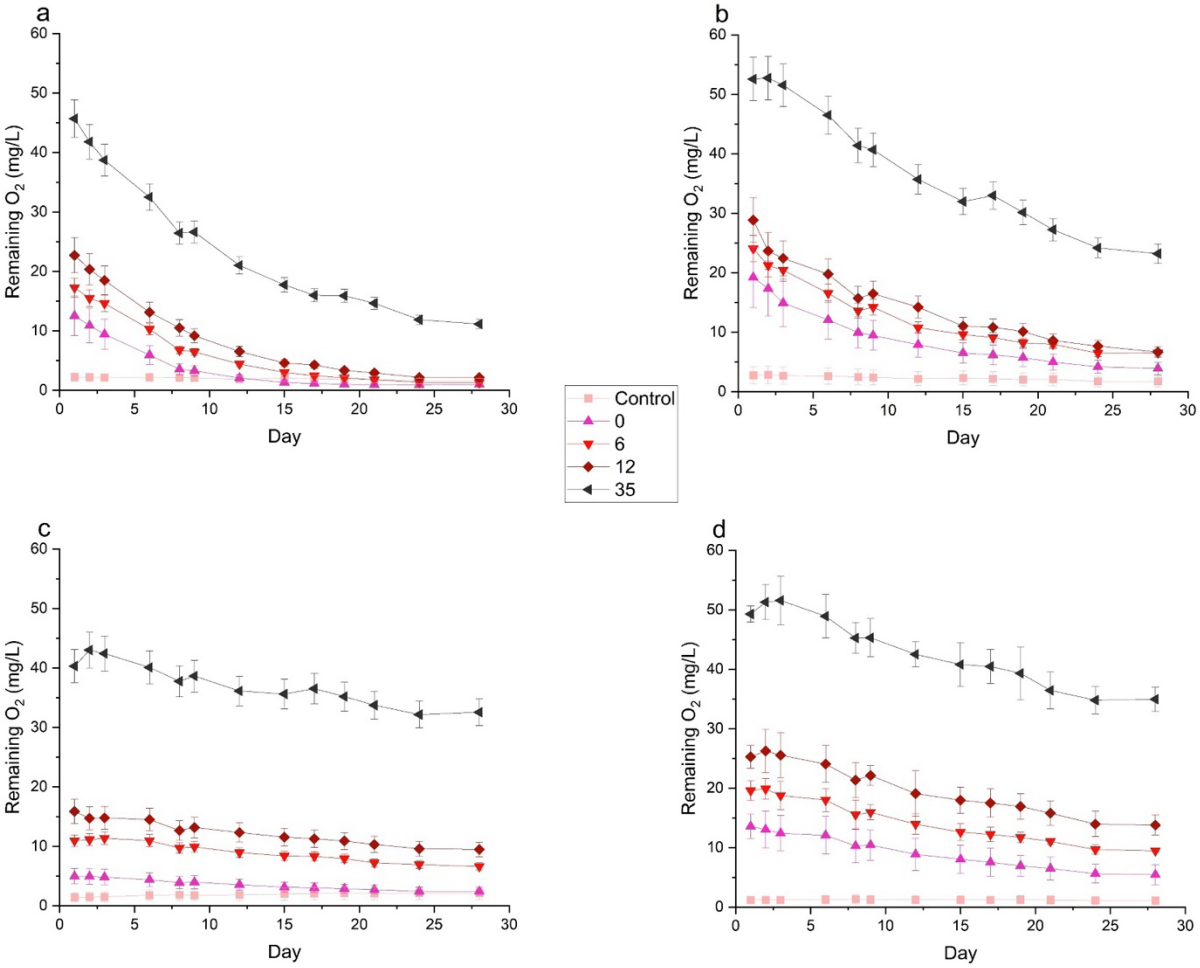



**Figure S1. Oxygen consumption monitoring during accelerated oxidation of the wines exposed to several $O_2$ doses (mg/L) over the stoichiometric amount needed to consume total $SO_2$ and controls stored in anoxic conditions at 4 °C.**

Graph represents a) Verdejo, b) Chardonnay, c) Cava and d) *rosé*.

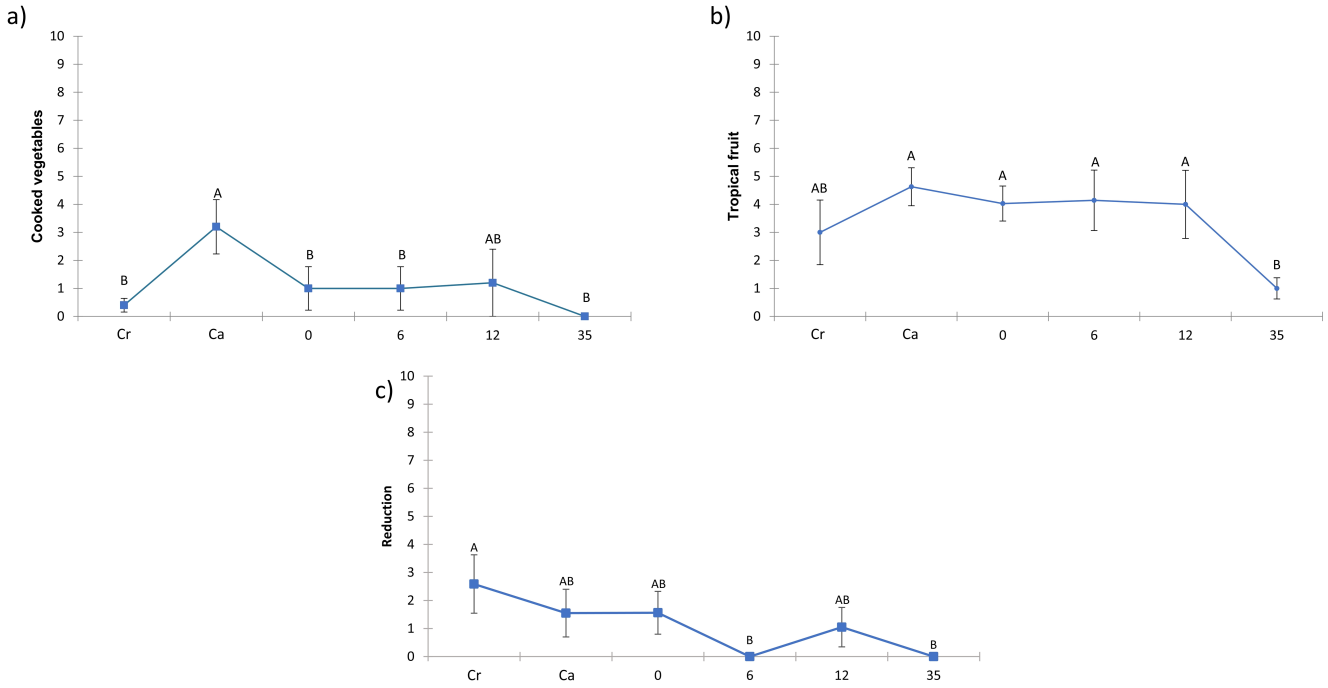



**Figure S2. Line graphs for those attributes whose intensities underwent a change ($p < 0.1$) according to two-way ANOVA (judges as random and condition as fixed) in Verdejo.**

Statistical sub-groups according to Fisher's LSD are represented with letters above error bars (± mean standard error). Figures represent a) cooked vegetables, b) tropical fruit, and c) reduction.

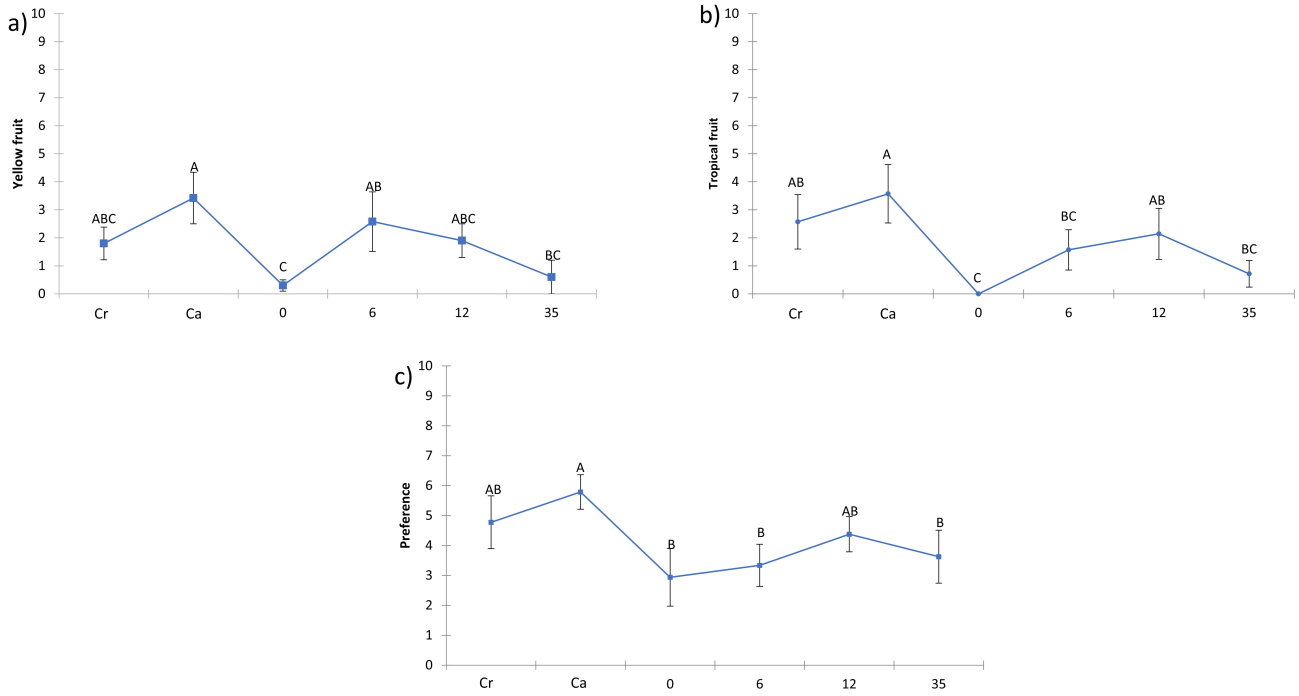



**Figure S3. Line graphs for those attributes whose intensities underwent a change ($p < 0.1$) according to two-way ANOVA (judges as random and condition as fixed) in Chardonnay.**

Statistical sub-groups according to Fisher's LSD are represented with letters above error bars (± mean standard error). Figures represent a) yellow fruit, b) tropical fruit, and c) preference.

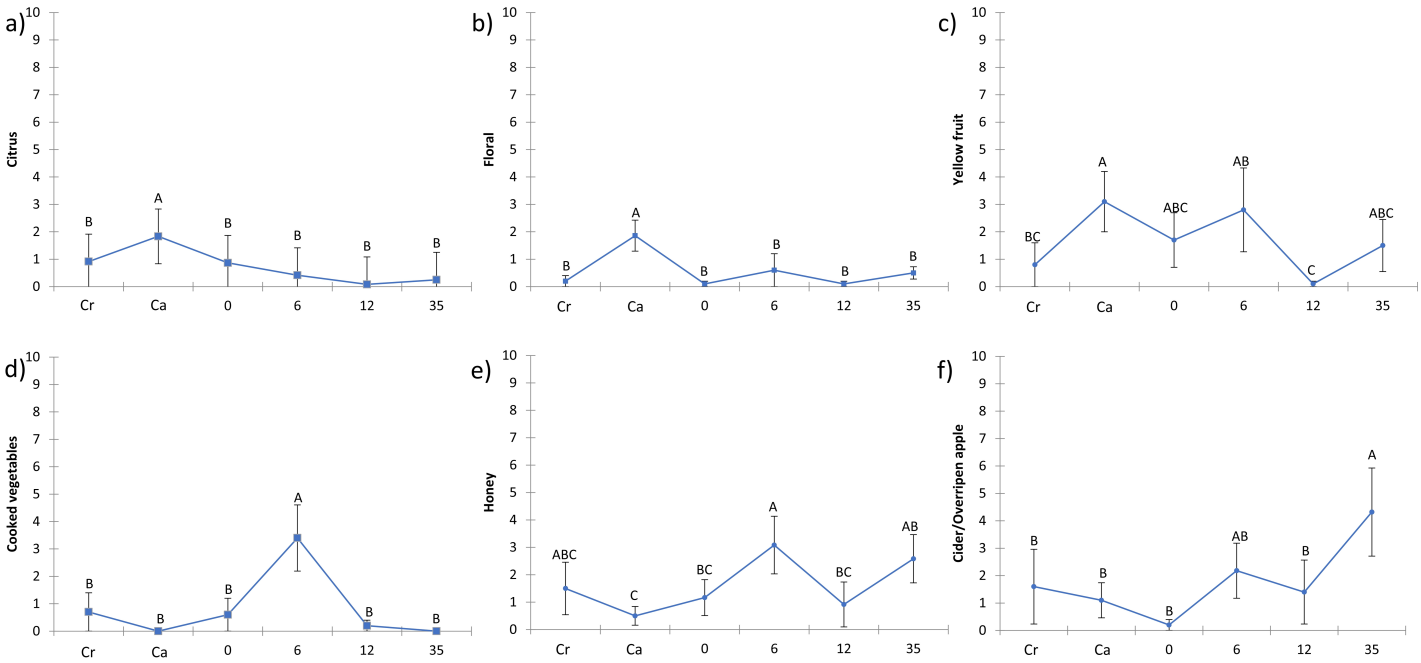



**Figure S4. Line graphs for those attributes whose intensities underwent a change ($p < 0.1$) according to two-way ANOVA (judges as random and condition as fixed) in Cava.**

Statistical sub-groups according to Fisher's LSD are represented with letters above error bars (± mean standard error). Figures represent a) citrus, b) floral, c) yellow fruit, d) cooked vegetables, e) honey, and f) cider/overripe apple.

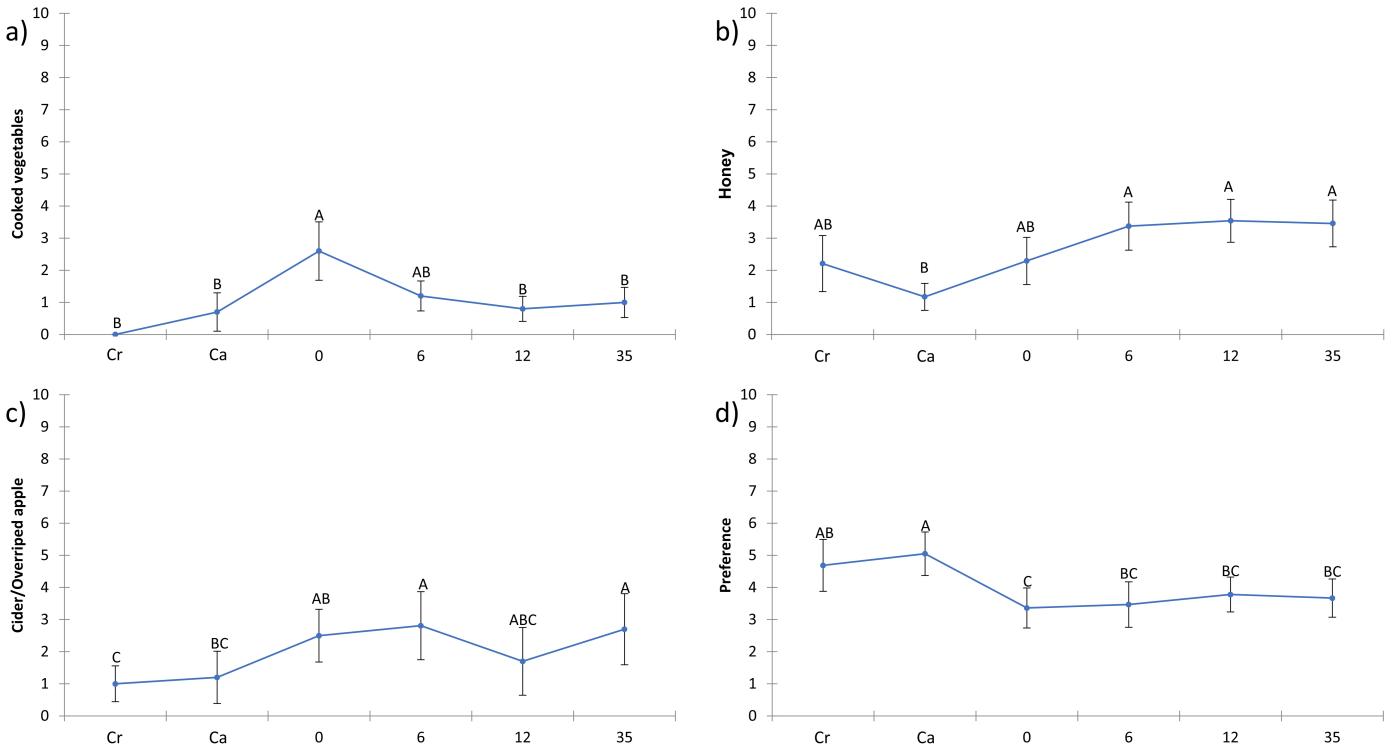



**Figure S5. Line graphs for those attributes whose intensities underwent a change ($p < 0.1$) according to two-way ANOVA (judges as random and condition as fixed) in *rosé*.**

Statistical sub-groups according to Fisher's LSD are represented with letters above error bars (± mean standard error). Figures represent a) cooked vegetables, b) honey, c) cider/overripe apple, and d) preference.

**Table S1. F and *p* values from a three-way ANOVA (judges as random and sample and replicate as fixed) regarding the panel's performance.**

| Attribute | Consensus (J × S) | | Panel's reproducibility (J × R) | | Samples' reproducibility (S × R) | |
|---|---|---|---|---|---|---|
| | F | *p* | F | *p* | F | *p* |
| Spirit-like alcohol | 1.650 | 0.073 | 1.322 | 0.287 | 1.289 | 0.299 |
| Citrus | 0.961 | 0.537 | 0.954 | 0.465 | 0.728 | 0.606 |
| Floral | 0.910 | 0.582 | 1.345 | 0.285 | 0.945 | 0.472 |
| Yellow fruit | 0.608 | 0.864 | 0.281 | 0.886 | 1.532 | 0.225 |
| White fruit | 0.962 | 0.549 | 0.250 | 0.968 | 1.953 | 0.121 |
| Cooked vegetables | 1.281 | 0.296 | 0.942 | 0.46 | 0.927 | 0.481 |
| Black fruit | 0.780 | 0.771 | 1.241 | 0.306 | 0.646 | 0.666 |
| Red fruit | 1.640 | 0.075 | 1.271 | 0.294 | 1.330 | 0.275 |
| Tropical fruit | 0.953 | 0.556 | 1.292 | 0.288 | 1.920 | 0.116 |
| Honey | 0.921 | 0.594 | 0.550 | 0.793 | 1.842 | 0.130 |
| Reduction | 0.942 | 0.576 | 1.340 | 0.269 | 0.704 | 0.627 |
| Cider/overripe apple | 1.130 | 0.394 | 1.889 | 0.151 | 0.613 | 0.693 |
| Acidity | 0.766 | 0.687 | 0.884 | 0.467 | 0.290 | 0.912 |
| Bitterness | 0.656 | 0.787 | 0.064 | 0.982 | 1.879 | 0.126 |
| Astringency | 0.641 | 0.801 | 0.552 | 0.656 | 0.947 | 0.477 |
| Preference | 1.492 | 0.123 | 0.341 | 0.930 | 2.122 | 0.086 |

**SUPPLEMENTARY DATA**
Aragón-Capone, A. M., de-la-Fuente-Blanco, A., Ferreira, V., & Bueno, M. Sensory patterns and oxygen consumption kinetics in the oxidation of white, *rosé* and sparkling wines. OENO One.
https://oeno-one.eu/article/view/9393

**Table S2. Average scores for the sensory attributes that were discriminant among samples. Errors are expressed as ± mean standard error, wines as "Ch" for Chardonnay, "Ver" for Verdejo, "Cv" for Cava, and "Rs" for *rosé*; treatments are "Cr" for control, and "Ca" for the aerated control.**

| Wine | Treat | Spirit-like alcohol | Citrus | Floral | Yellow fruit | White fruit | Cooked vegetables | Tropical fruit | Honey | Reduction | Cider/overripe apple | Preference |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ver | Cr | 1.45 ± 0.76 | 0.00 | 1.84 ± 0.83 | 1.60 ± 0.68 | 2.56 ± 0.66 | 0.40 ± 0.24 | 3.00 ± 1.15 | 0.33 ± 0.21 | 2.59 ± 1.04 | 1.02 ± 0.77 | 5.63 ± 0.71 |
| | Ca | 1.67 ± 0.76 | 0.33 ± 0.21 | 0.24 ± 0.16 | 1.61 ± 0.81 | 2.29 ± 0.72 | 3.21 ± 0.97 | 4.63 ± 0.68 | 1.17 ± 0.54 | 1.55 ± 0.85 | 1.04 ± 0.63 | 4.94 ± 0.87 |
| | 0 | 1.33 ± 0.61 | 1.83 ± 0.76 | 1.46 ± 0.63 | 3.56 ± 1.18 | 1.25 ± 0.56 | 1.02 ± 0.77 | 4.03 ± 0.63 | 0.33 ± 0.33 | 1.56 ± 0.76 | 0.82 ± 0.58 | 5.86 ± 0.71 |
| | 6 | 1.88 ± 0.75 | 1.00 ± 0.63 | 0.64 ± 0.36 | 1.40 ± 0.51 | 2.38 ± 0.91 | 0.98 ± 0.77 | 4.14 ± 1.08 | 1.33 ± 0.80 | 0.00 | 0.22 ± 0.18 | 5.30 ± 0.88 |
| | 12 | 2.17 ± 1.11 | 1.15 ± 0.74 | 1.90 ± 0.81 | 2.80 ± 1.24 | 2.88 ± 0.83 | 1.20 ± 1.20 | 4.00 ± 1.21 | 1.17 ± 0.40 | 1.05 ± 0.70 | 0.80 ± 0.37 | 5.70 ± 1.02 |
| | 35 | 1.98 ± 0.99 | 0.00 | 0.82 ± 0.51 | 1.82 ± 0.81 | 3.25 ± 0.82 | 0.00 | 1.04 ± 0.38 | 2.00 ± 1.03 | 0.00 | 2.04 ± 1.15 | 4.89 ± 0.83 |
| Ch | Cr | 2.13 ± 0.77 | 0.92 ± 0.49 | 0.14 ± 0.10 | 1.80 ± 0.58 | 2.38 ± 0.75 | 1.70 ± 0.86 | 2.57 ± 0.97 | 0.33 ± 0.21 | 2.60 ± 1.04 | 0.64 ± 0.56 | 4.78 ± 0.88 |
| | Ca | 2.65 ± 0.60 | 0.24 ± 0.16 | 2.54 ± 1.24 | 3.42 ± 0.92 | 2.24 ± 0.56 | 1.61 ± 0.75 | 3.57 ± 1.04 | 1.33 ± 0.61 | 0.56 ± 0.44 | 0.23 ± 0.19 | 5.79 ± 0.58 |
| | 0 | 3.20 ± 0.77 | 0.44 ± 0.37 | 1.24 ± 1.22 | 0.33 ± 0.18 | 0.69 ± 0.25 | 4.40 ± 1.44 | 0.00 | 1.50 ± 0.72 | 1.81 ± 0.90 | 1.20 ± 0.58 | 2.94 ± 0.97 |
| | 6 | 2.67 ± 1.26 | 0.54 ± 0.46 | 0.40 ± 0.24 | 2.58 ± 1.06 | 1.88 ± 0.52 | 2.90 ± 1.38 | 1.57 ± 0.72 | 0.33 ± 0.21 | 2.06 ± 0.85 | 1.40 ± 0.93 | 3.34 ± 0.70 |
| | 12 | 2.33 ± 0.84 | 0.42 ± 0.27 | 1.70 ± 0.66 | 1.90 ± 0.58 | 1.63 ± 0.41 | 1.62 ± 0.81 | 2.14 ± 0.91 | 1.08 ± 0.55 | 1.31 ± 0.89 | 1.40 ± 0.60 | 4.38 ± 0.59 |
| | 35 | 3.70 ± 1.35 | 0.74 ± 0.66 | 0.90 ± 0.78 | 0.63 ± 0.57 | 1.25 ± 0.55 | 2.60 ± 1.17 | 0.71 ± 0.47 | 1.75 ± 0.98 | 1.44 ± 0.82 | 1.40 ± 1.17 | 3.63 ± 0.89 |
| Cv | Cr | 3.75 ± 1.41 | 0.92 ± 0.49 | 0.24 ± 0.17 | 0.84 ± 0.78 | 2.19 ± 1.01 | 0.74 ± 0.66 | 2.02 ± 0.85 | 1.50 ± 0.96 | 0.28 ± 0.23 | 1.60 ± 1.36 | 5.25 ± 1.08 |
| | Ca | 2.17 ± 1.25 | 1.8 ± 0.60 | 1.86 ± 0.57 | 3.10 ± 1.10 | 2.61 ± 0.60 | 0.00 | 2.29 ± 0.71 | 0.50 ± 0.34 | 1.04 ± 0.71 | 1.12 ± 0.64 | 5.13 ± 0.53 |
| | 0 | 3.15 ± 0.82 | 0.87 ± 0.56 | 0.13 ± 0.10 | 1.68 ± 0.99 | 1.81 ± 0.58 | 0.64 ± 0.57 | 1.93 ± 0.88 | 1.17 ± 0.65 | 1.63 ± 0.56 | 0.22 ± 0.18 | 3.78 ± 1.07 |
| | 6 | 3.43 ± 1.01 | 0.44 ± 0.36 | 0.63 ± 0.55 | 2.80 ± 1.53 | 0.63 ± 0.32 | 3.40 ± 1.21 | 1.27 ± 0.88 | 3.08 ± 1.05 | 1.50 ± 1.05 | 2.18 ± 1.01 | 4.06 ± 0.98 |
| | 12 | 3.50 ± 1.48 | 0.14 ± 0.10 | 0.11 ± 0.10 | 0.13 ± 0.10 | 1.31 ± 0.51 | 0.23 ± 0.18 | 1.14 ± 0.55 | 0.92 ± 0.82 | 0.81 ± 0.74 | 1.40 ± 1.17 | 3.53 ± 0.94 |
| | 35 | 2.67 ± 0.61 | 0.25 ± 0.17 | 0.50 ± 0.22 | 1.50 ± 0.95 | 2.19 ± 0.87 | 0.00 | 1.14 ± 0.67 | 2.58 ± 0.88 | 0.69 ± 0.62 | 4.32 ± 1.61 | 2.94 ± 0.59 |
| Rs | Cr | 2.82 ± 0.63 | 0.23 ± 0.17 | 0.10 ± 0.10 | 1.68 ± 0.75 | 1.09 ± 0.41 | 0.00 | 1.89 ± 0.51 | 2.21 ± 0.87 | 0.44 ± 0.26 | 1.02 ± 0.56 | 4.69 ± 0.81 |
| | Ca | 3.02 ± 0.75 | 0.34 ± 0.25 | 0.35 ± 0.27 | 1.82 ± 0.64 | 1.15 ± 0.31 | 0.72 ± 0.58 | 1.11 ± 0.41 | 1.17 ± 0.42 | 0.44 ± 0.33 | 1.20 ± 0.81 | 5.05 ± 0.68 |
| | 0 | 4.24 ± 0.86 | 0.14 ± 0.10 | 0.35 ± 0.19 | 0.80 ± 0.41 | 1.44 ± 0.40 | 2.60 ± 0.91 | 1.25 ± 0.43 | 2.29 ± 0.73 | 0.16 ± 0.13 | 2.50 ± 0.82 | 3.36 ± 0.62 |
| | 6 | 3.88 ± 0.52 | 0.14 ± 0.11 | 0.50 ± 0.27 | 1.15 ± 0.60 | 1.59 ± 0.55 | 1.20 ± 0.47 | 1.16 ± 0.46 | 3.37 ± 0.75 | 0.28 ± 0.22 | 2.81 ± 1.06 | 3.47 ± 0.71 |
| | 12 | 3.26 ± 0.77 | 0.33 ± 0.15 | 0.70 ± 0.43 | 0.91 ± 0.39 | 2.22 ± 0.63 | 0.80 ± 0.39 | 1.07 ± 0.46 | 3.54 ± 0.67 | 0.44 ± 0.33 | 1.70 ± 1.05 | 3.78 ± 0.54 |
| | 35 | 3.57 ± 0.67 | 0.00 | 0.10 ± 0.10 | 1.25 ± 0.68 | 1.75 ± 0.57 | 1.04 ± 0.47 | 0.50 ± 0.31 | 3.46 ± 0.73 | 0.25 ± 0.17 | 2.70 ± 1.11 | 3.67 ± 0.59 |

## Equation S1. Calculating oxygen consumption kinetics based on the procedure of Marrufo-Curtido *et al.*, 2018.

As Marrufo-Curtido *et al.* (2018) report, the oxygen consumption in wine can be satisfactorily interpreted by pseudo-first kinetic models. Hence, the variations of oxygen over time can be calculated as:

$$\frac{d[O_2]}{dt} = -k[O_2]_0 \rightarrow \frac{d[O_2]}{[O_2]_0} = -kdt$$

which, once integrated, is:

$$\int_{O2_0}^{O2_t} \frac{d[O_2]}{[O_2]_0} = -k\int_0^t dt \rightarrow ln[O_2]_t - ln[O_2]_0 = -kt \rightarrow ln\frac{[O_2]_t}{[O_2]_0} = -kt \rightarrow \frac{[O_2]_t}{[O_2]_0} = e^{-k}$$

## References

Marrufo-Curtido, A., Carrascón, V., Bueno, M., Ferreira, V., & Escudero, A. (2018). A procedure for the measurement of Oxygen Consumption Rates (OCRs) in red wines and some observations about the influence of wine initial chemical composition. *Food Chemistry*, *248*, 37–45. https://doi.org/10.1016/j.foodchem.2017.12.028