TABLE 1. Examples of OTR data obtained from entire oak barrels and expressed as the amount of oxygen brought to the wine during aging according to the results found in the literature over a 90 years period.

Oxygen Transfer Rate per year	Barrel type	Method	Authors
5 mg/L	Sealed barrels	Kinetics of $SO4^{2-}$ formation	Ribéreau-Gayon (1933)
15 to 45 mg/L	Sealed barrels	N-A*	Frolov-Bagreev and Agabal'iants (1951)
28 mg/L	Unsealed barrels	Kinetics of $SO4^{2-}$ formation	Vivas and Glories (1997)
36 mg/L	Sealed barrel, bunghole on the side		
45 mg/L	Silicone bung to ensure an airtight seal		
19.5 mg/L	New barrels Limousin (wild grain)		
28 mg/L	New barrels Centre (tight grain)		
10 mg/L	5-year-old used barrels, Centre (tight grain)		
32 ± 5.6 mg/L	New barrels, American Oak (*Q. alba*)	dissolved oxygen optoluminescent dipping probe	Nevares *et al.* (2014)
27 ± 2.3 mg/L	New barrels, French Oak (*Q. petraea*)		
11.3 ± 0.9 mg/L	4 new medium grain American Oak barrels	Dynamic one-year OTR measurement in a barrel	del Alamo-Sanza and Nevares (2014)
11.7 ± 1.5 mg/L	4 new tight grain American Oak barrels	Measurement with a dissolved oxygen optoluminescent dipping probe	
8.2 ± 0.5 mg/L	4 new tight grain French Oak barrels		
22.8 mg/L	High OTR barrel (*Q. petraea*)	Classification of wood by image analysis of staves	Prat-García *et al.* (2020)
11.9 mg/L	Low OTR barrel (*Q. petraea*)	Measurement with a dissolved oxygen optoluminescent dipping probe	
14.4 mg/L	Commercial barrel (*Q. petraea*)		

* Not Available

https://oeno-one.eu/article/view/4692

PROBLEM

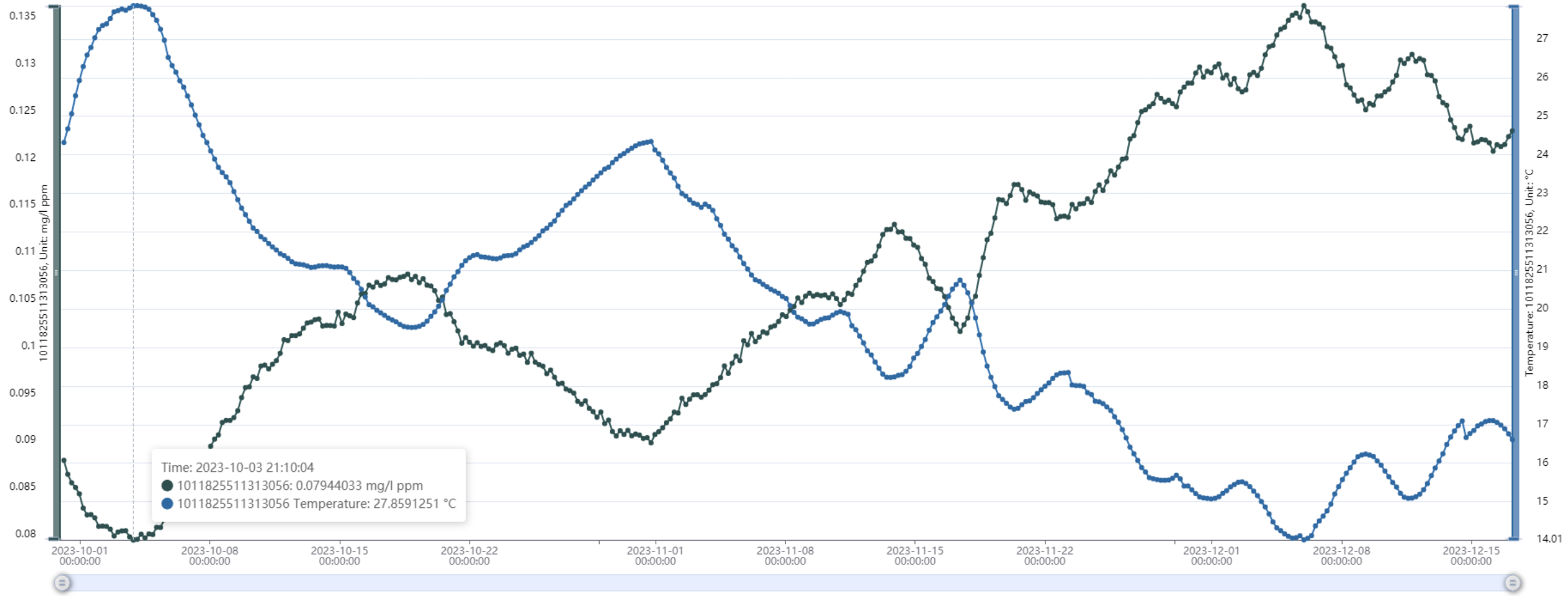
SOLUTION

auric infinity technology shows the lowest Dissolved Oxygen (DO) value of **0.07944033 mg/l** at **27.8591251 °C** during Maceration-Fermentation-Malolactic Fermentation and Aging

Experiments - Grasevina DO 5h

Graph | Settings | Reports

DO 1011825511313056
0.12mg/l ppm 16.46°C



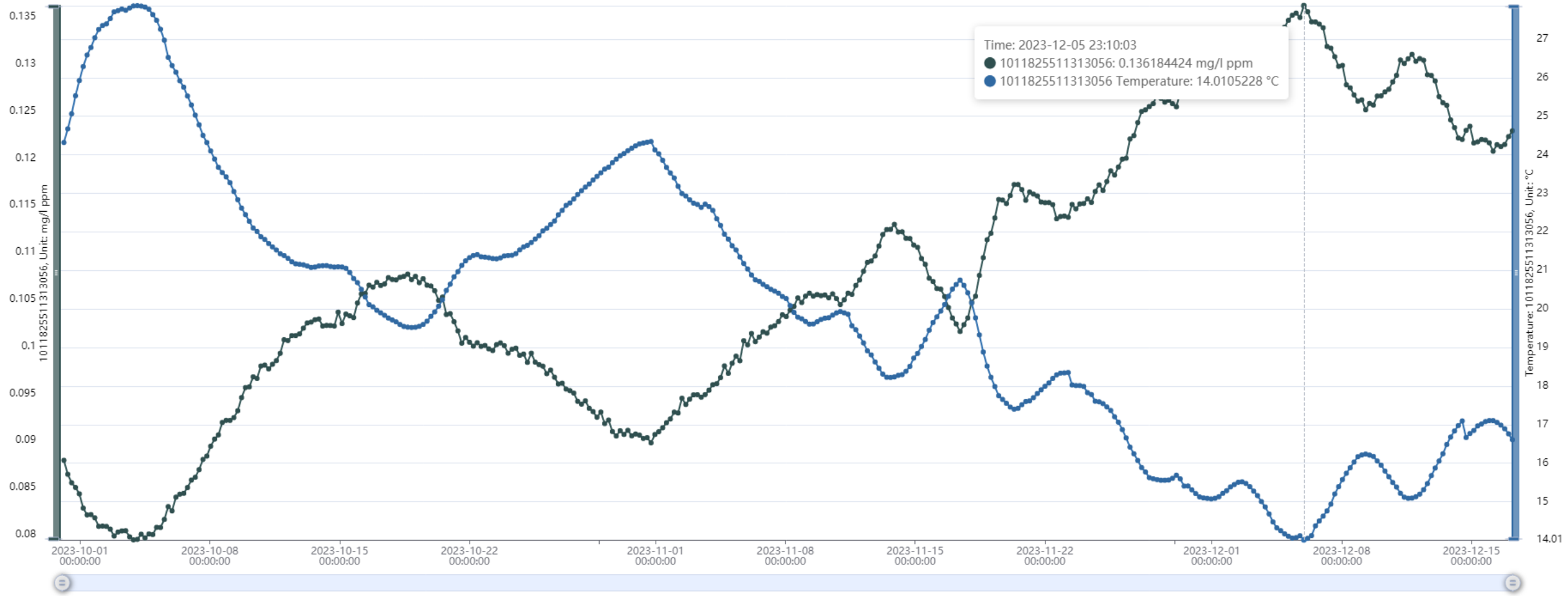
Stop | Inoculate | Reset Zoom | Disable AutoScale | Delete Data | Export

auric infinity technology shows the highest Dissolved Oxygen (DO) value of **0.136184424 mg/l** at **14.0105228 °C** during Maceration-Fermentation-Malolactic Fermentation and Aging

Experiments - Grasevina DO 5h

Graph | Settings | Reports

DO 1011825511313056
0.12mg/l ppm 16.46°C



Stop | Inoculate | Reset Zoom | Disable AutoScale | Delete Data | Export

auric infinity technology shows the lowest Oxidation Reduction Potential (ORP) value of **22.71814 mV** at **24.7055359 °C** during Aging

Backstage

ArcAir - Basic Version

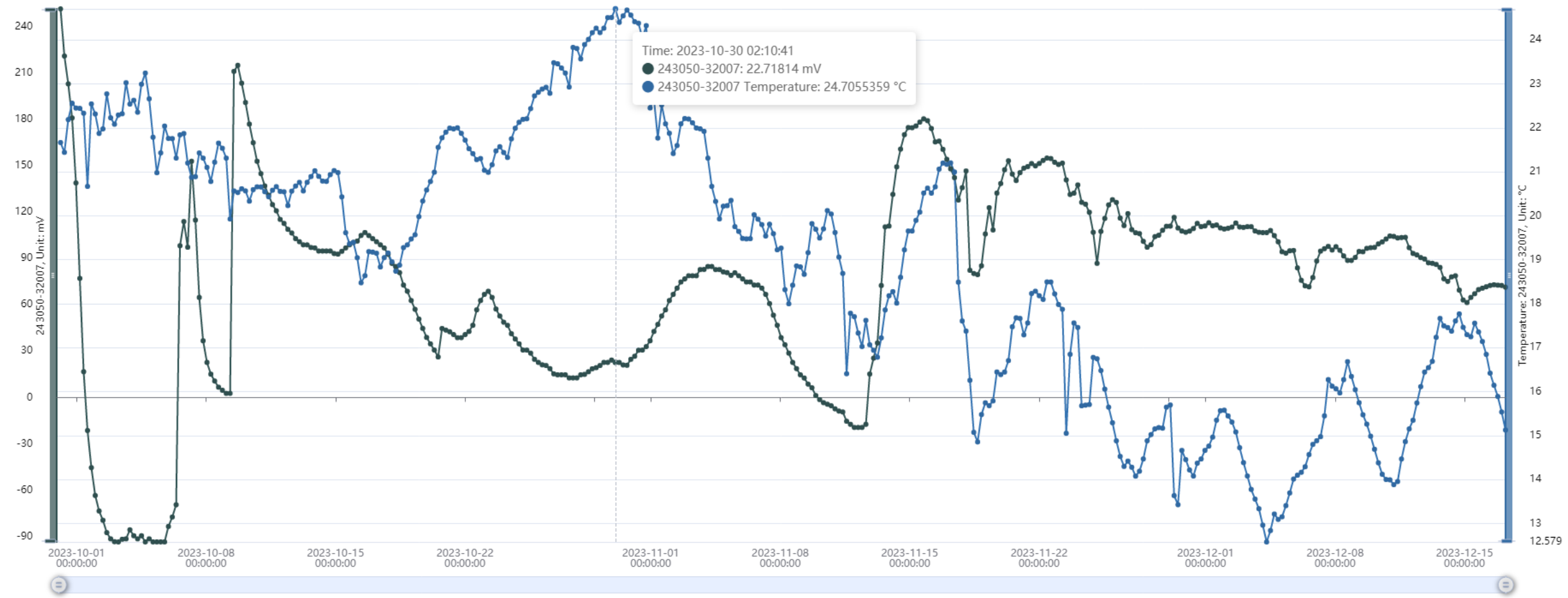
Laboratory mode |

Experiments - Grasevina ORP 5h

Graph | Settings | Reports

ORP 71.15mV

243050-32007 14.76°C



Stop | Inoculate | Reset Zoom | Disable AutoScale | Delete Data | Export

Pretraživanje

HRV

9:36 17.12.2023.

auric infinity technology shows the highest Oxidation Reduction Potential (ORP) value of **72.46539mV** at **15.536499 °C** during Aging

Backstage

ArcAir - Basic Version

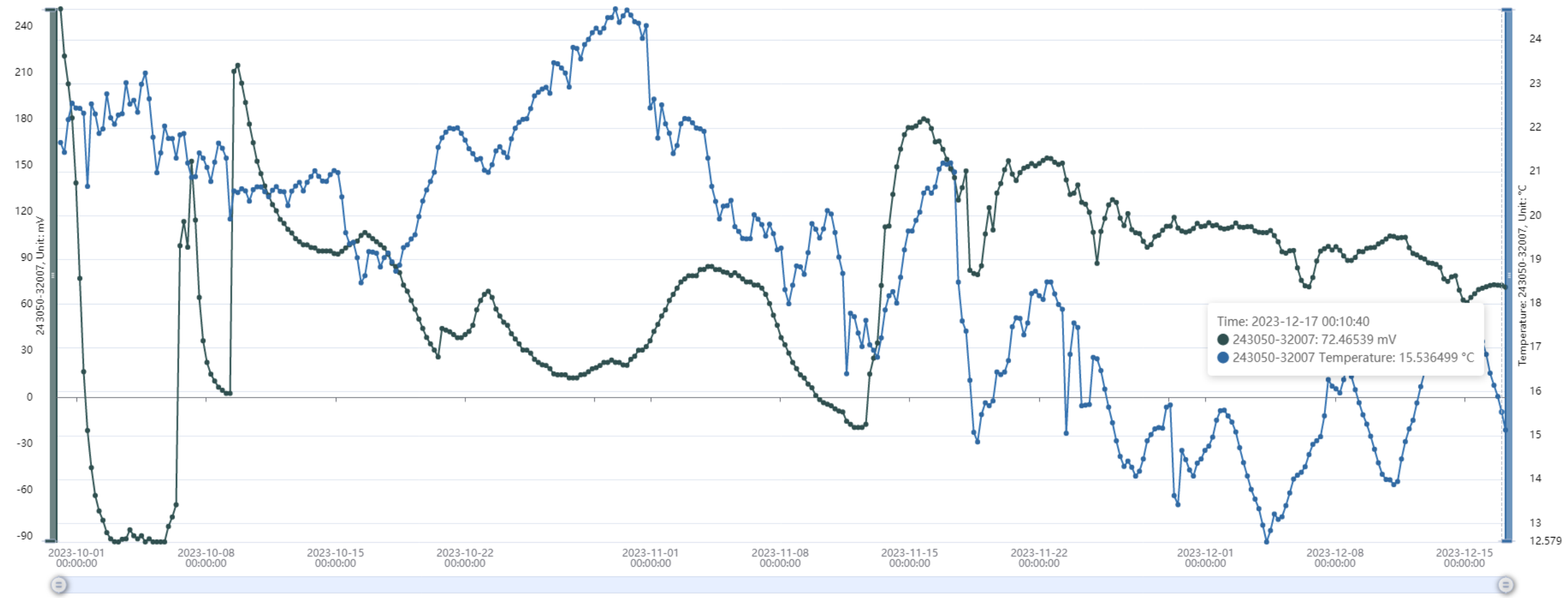
Laboratory mode |

Experiments - Grasevina ORP 5h

Graph | Settings | Reports

ORP 71.18mV

243050-32007 14.77°C



Stop | Inoculate | Reset Zoom | Disable AutoScale | Delete Data | Export

Pretraživanje

HRV

9:36

17.12.2023.

Conclusion

Higher temperature lowers Dissolved Oxygen and Oxidation Reduction Potential making temperature and humidity control of the cellar unnecessary.