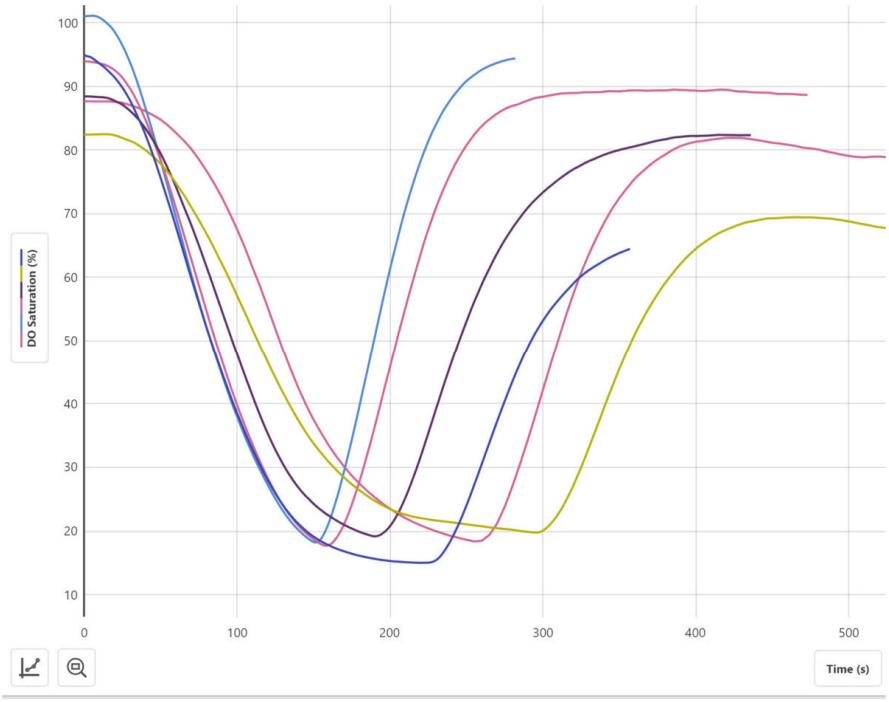
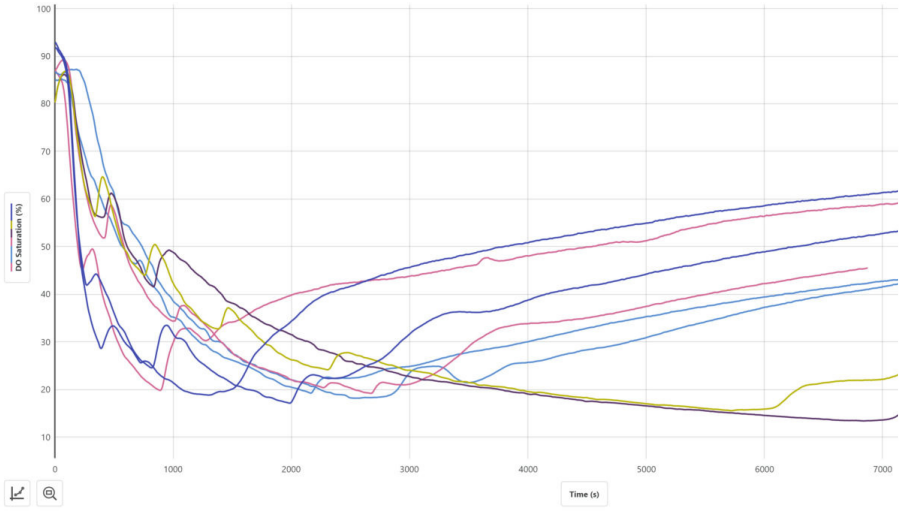
O2 uptake and down take rate for Excited Water vs RO Water

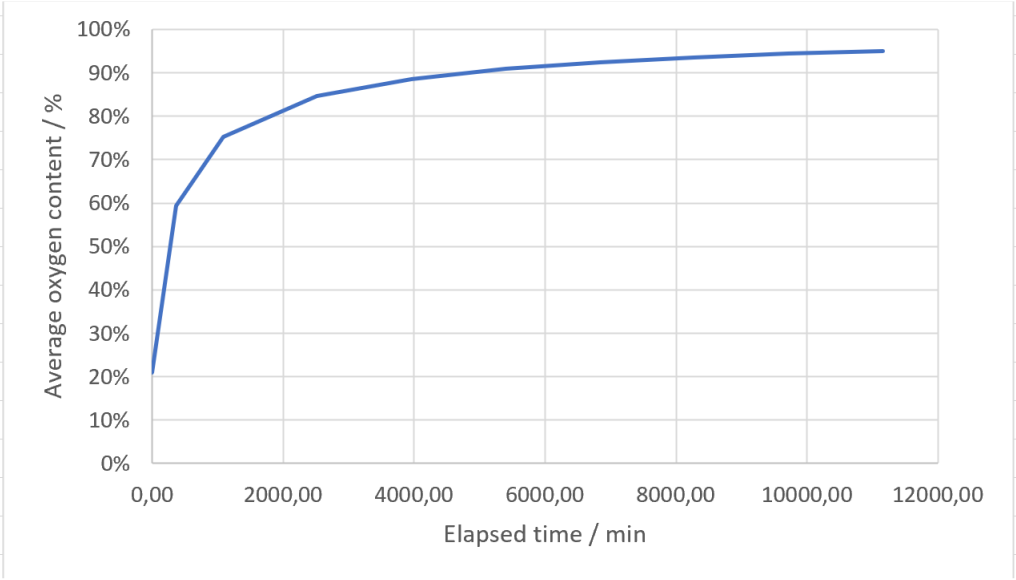
This is an experiment where we tested Excited Water vs reverse osmosis water – RO. In both cases we took 5 ml water and placed it on top of an dissolved oxygen O2 meter and placed it in a vacuum tank. We then emptied the vacuum tank down to 0,05 bar and once the O2 saturation reached 20% we let the air back into the tank. We monitored the O2 down take time rate and O2 uptake time rate. Below graph shows that the Excited Water O2 down take rate from apx. 90% to 20% takes 150 to 300 seconds. The speed is apx. 30 seconds per 10% decrease. It can be seen that the Excited Water O2 uptake rate from 20% to 80% takes about 100 seconds. The speed is apx. 15 seconds per 10% increase.



Below graph shows the RO water. RO O2 down take rate from 90% to 20% takes 900 to 4,000 seconds. The speed is apx. 350 seconds per 10% decrease. And RO O2 uptake rate from 20% to 60% takes 6,000 seconds plus. The speed is 1,500 seconds per 10% increase.



The calculated uptake rate for O2 is as follows: (source: IPU at the Danish Technical) University)



Graph states that 20% to 80% takes about 120.000 seconds -> 2.000 minutes -> 30 hours.

CONCLUSION

The Excited Water vs RO down take rate difference is a factor 12 times faster for the Excited Water.

And the Excited Water vs RO uptake rate difference is a factor 100 plus times faster for the Excited Water.

The calculated uptake rate is apx 1.200 times slower than the Excited Water.

Kind Regards
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