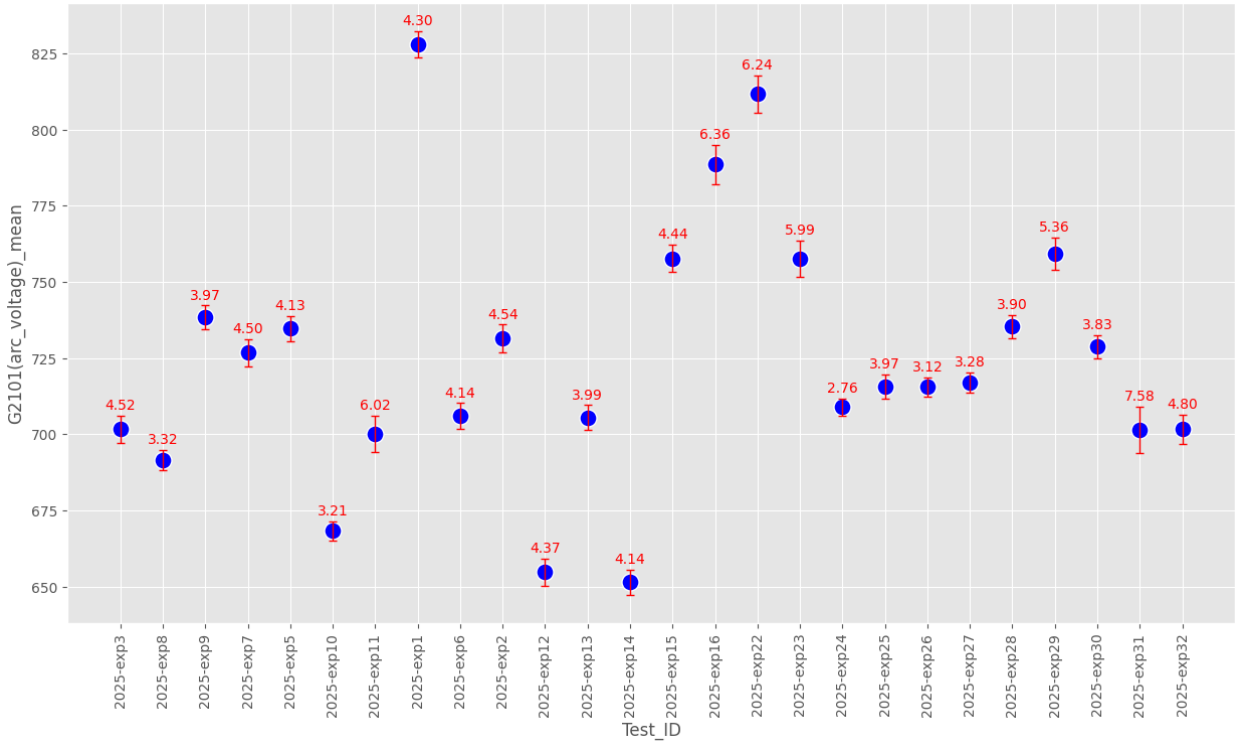
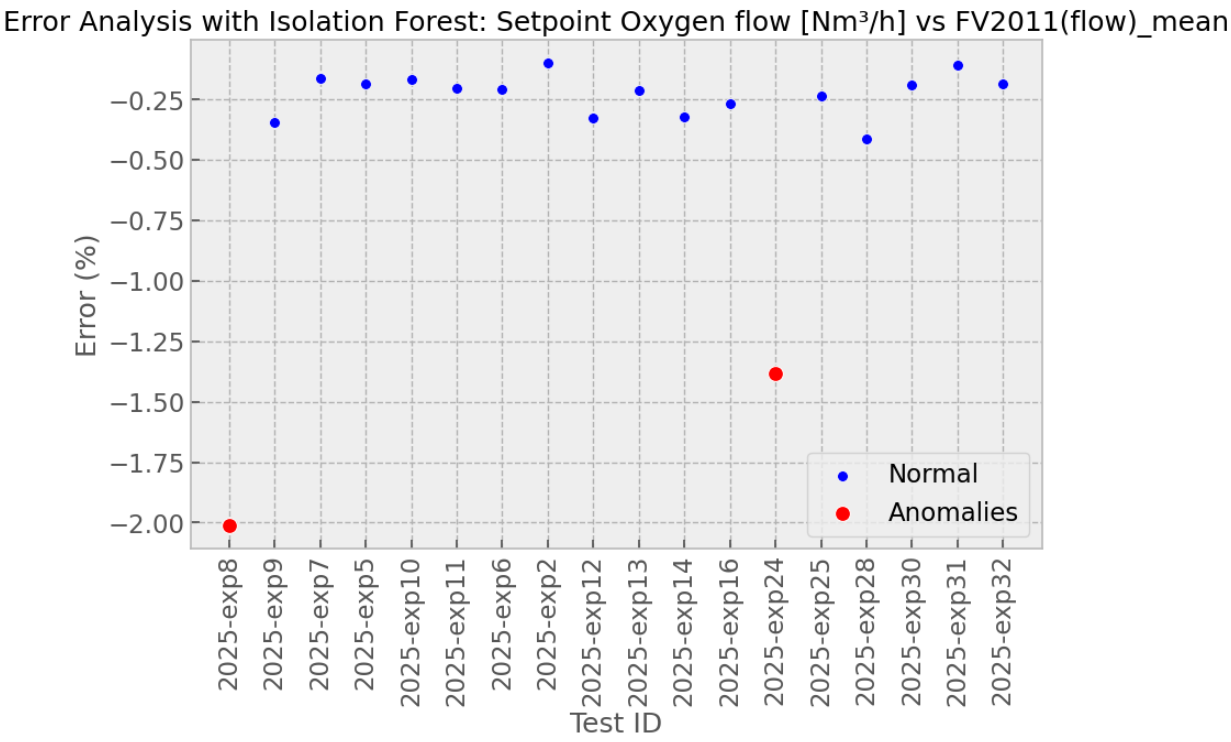


The Power Supply Unit (PSU) is holding current constant and adjusting the voltage to maintain the set power. By plotting the mean arc-voltage for each experiment with standard deviation whiskers we can get an idea of the consistency and stability of the experiments.

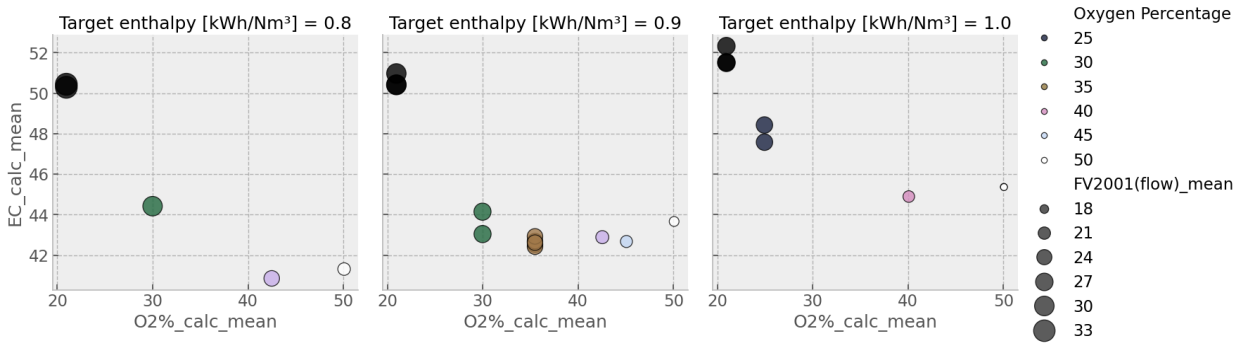
They fall in the range of around 650 V to 825 V which is acceptable. The standard deviation is also within an acceptable range up to 7.58.



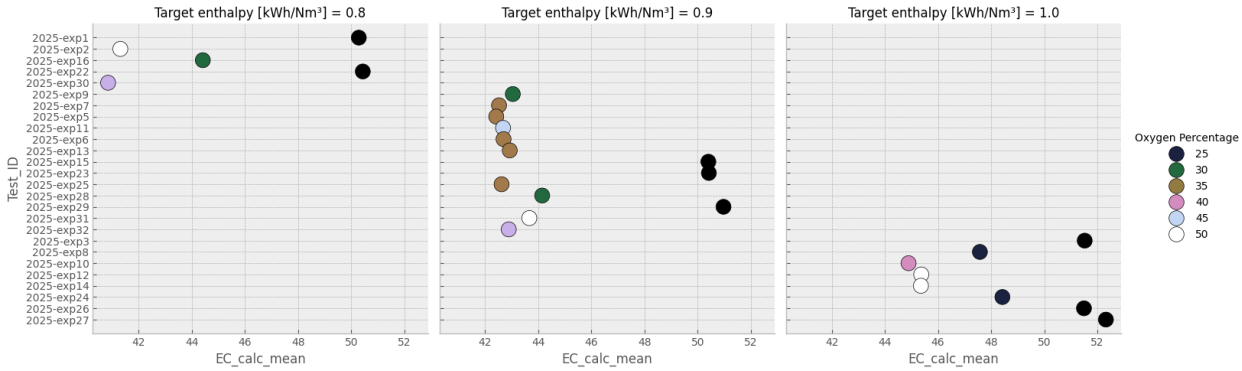
We compare the setpoint and the actual flow of oxygen by calculating the error between them.

For most of the experiments the error is below 0.5 %, however exp8 and exp24 have significant errors of 1.3 % and 2.0 %.

This might indicate a leak, and the experiments were repeated after an inspection.



Our main goal was to investigate the optimal oxygen concentration. By plotting the mean energy cost vs. the oxygen concentration we observe a optimal oxygen concentration in the range 40 % for all the three enthalpy levels.



By plotting the experiment IDs vs. the energy cost and groupby the three target enthalpy levels we also see that the best energy cost is when we use the lowest target enthalpy in combination with high oxygen concentrations.