



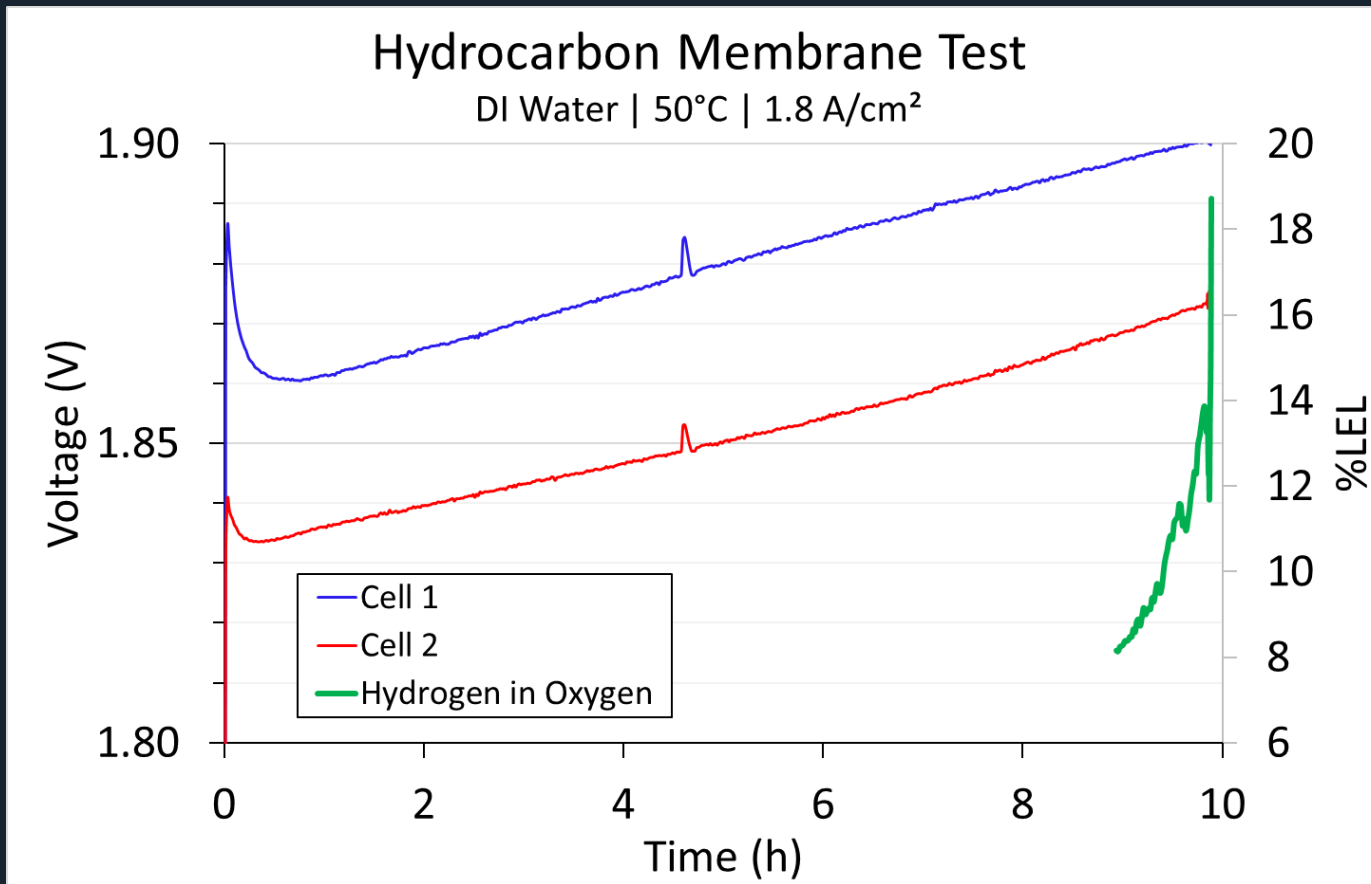
PFAS Restriction

Testing of hydrocarbon membranes

Evidence for ECHA



Hydrocarbon Membranes are NOT alternatives



- The H₂ level in the O₂ rapidly rose and resulted in cell failure around the 10hr mark. This is typical of hydrocarbon membrane technology that exists today
- Electrolysers need to run at least 5000-8000 hrs a year to be economically viable
- No hydrocarbon membranes are close to being stable enough, especially at elevated hydrogen generation pressures. Claimed durability data is typically at atmospheric pressure
- Given the state of the art today, widespread deployment of hydrocarbon membranes suitable for electrolysis at scale is at least 10 years out, probably closer to 15-20 unless a major breakthrough is made imminently

NB. Voltages are similar to baseline PEM and translate to 49.2 – 51.8 kWh/kg H₂.

number one by nature