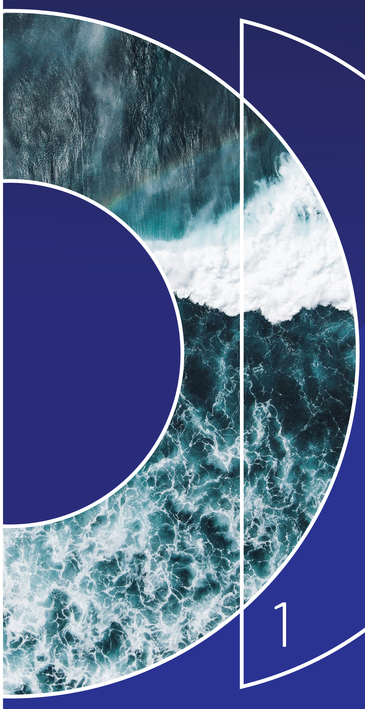
sea4volt

Seawater Electrolysis by AEM Technology for Various Liquid Feeds without Pre-Treatment

Developing a low-temperature Anion Exchange Membrane electrolyser for clean energy directly from seawater.



1

Seawater: Direct feed from different seawater compositions

2

Low-temperature AEM electrolyser: Operating under a slight pH-gradient

3

Green Hydrogen + Brine Valorisation

Our mission is to:

Understand seawater-material interactions via experimental and machine-learning tools

Develop PFAS-free membranes and durable low-PGM cathodes for seawater use

Design and build an AEM single cell and multi-cell stack for direct seawater electrolysis

Define performance and durability testing protocols for seawater-fed electrolysers

Design an integrated flowsheet for a Net Zero Liquid Discharge approach to brine valorisation

PARTNERS

VTT · Fraunhofer IFAM · Ciaut · Aalto University · Gdansk University of Technology · stargate hydrogen · HydroLite · FGS

Get in Touch with Sea4Volt

info@sea4volt.eu · @sea4volt · www.sea4volt.eu

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Clean Hydrogen Partnership

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