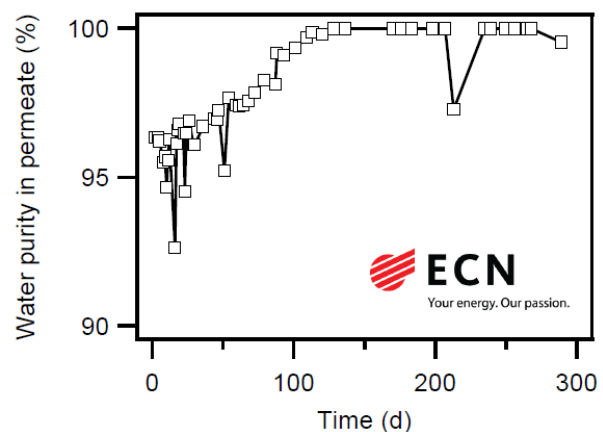
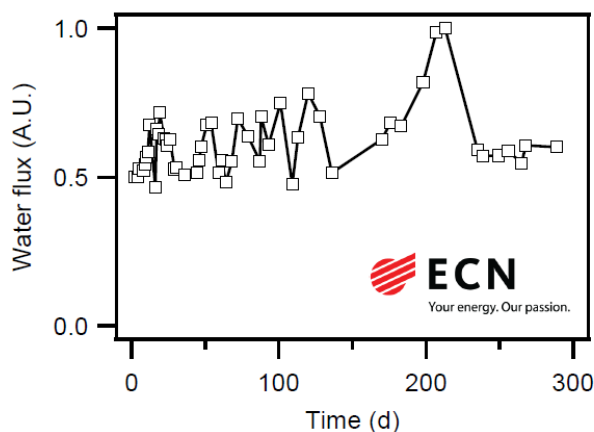


Acetic acid: process and energy improvements in the dehydration process

The dehydration of acetic acid is one of the most frequently asked inquiries that we receive. With a global demand of about 6.5 million tonnes per year, it is an important bulk chemical. The high recycling rate demands effective purification techniques at all production scales. In answer to this demand, ECN has developed a HybSi[®] membrane with an increased acid stability. As a result, the effective operation time has increased from about 2 weeks to at least one year, after which the experiment was discontinued. During this year of continuous operation, we did not observe any degradation and the membrane has a constant flux and high water permeate purity.

HAc / 10% H₂O at 100°C - Acid stable HybSi[®] ECN



In the coming months, this membrane will be tested under even more acidic conditions. We aim to find the application limit of this acid resistant version of the HybSi[®] membrane.

Extended proven application window

With these newly collected data, the proven application window has been further expanded. HybSi[®] membrane can be applied under the following conditions:

- Up to temperatures of at least 190°C.
- Up to water contents of 100%.
- In aprotic solvents including MEK and NMP.
- Under acidic conditions even for the dehydration of acetic acid

Contact details

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Receiving this news flash

You receive this e-mail as you have shown interest in the past in the HybSi[®] membrane system. Please contact me, if you are no longer interested in receiving this irregular news flash.