

Inorganic Hollow Fiber Module

Publieke samenvatting / Public summary

Aanleiding

The reason for this project is to demonstrate that ceramic hollow fiber membranes might have considerable advantages over state-of-the-art monolithic ceramic membranes with regard to flux, rejection and fouling behavior for oil/water separation. It also allows for less energy consuming treatment to remove colloidal particles from wool grease.

Doelstelling

The focus of this project is the validation of robust, low fouling, ceramic hollow fiber membranes for oil and gas field produced water treatment, which in essence is the removal of tiny oil droplets from the produced water as well as the removal of colloidal particles from wool grease.

Korte omschrijving

In the first 2 months of the project, ceramic hollow fiber modules will be produced. Alumina is chosen as the ceramic material to start with. The alumina hollow fibers, prepared via a dry-wet spinning method as applied in the commercial production of polymeric membranes, followed by heat treatment, will be manufactured by the University of Twente and delivered to LouwersHanique for module building. In parallel to this manufacturing activity, a liquid cross-flow permeation measurement set-up will be constructed that will be used for duration testing of the manufactured ceramic hollow fiber membranes. These liquid permeation long duration measurements will be performed in month 3-10. In the last 2 months of the project a report will be written and a meeting will be scheduled to discuss

Projectinformatie / Project information

Projectnummer / Project number

TEEI114001

Subsidiebedrag / Grant amount

€ 29.680,00

Algemene informatie / General information

Penvoerder / Secretariat

Louwers Glastechniek en Technisch
Keramiek B.V.

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the results. Also a presentation at an NL-GUTS meeting will be scheduled.

Resultaat

In the end the data generated in this project will demonstrate the performance of ceramic hollow fiber modules in 2 industrial streams and conclusions will be drawn to which extent the state-of-art ceramic hollow fiber modules meet the needs of the end users in the project. The evaluation will be shared with NL-GUTS members.

De data in deze applicatie is afkomstig van de Rijksdienst voor Ondernemend Nederland (RVO) en wordt in samenwerking met de Topsector Energie ontsloten.

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Voor meer informatie over de TSE / Energie-Innovatie regelingen die RVO aanbiedt, ga naar www.rvo.nl/tse.