

Accepted Manuscript

Title: Natural Gas Purification from Acid Gases using Membranes: A Review of the History, Features, Techno-Commercial Challenges, and Process Intensification of Commercial Membranes

Authors: Yousif Alcheikhhamdon, Mina Hoorfar

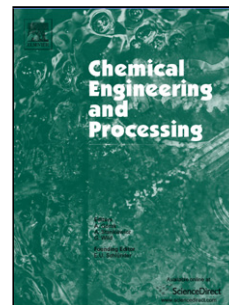
PII: S0255-2701(17)30432-4
DOI: <http://dx.doi.org/doi:10.1016/j.cep.2017.07.009>
Reference: CEP 7027

To appear in: *Chemical Engineering and Processing*

Received date: 28-4-2017
Revised date: 3-7-2017
Accepted date: 9-7-2017

Please cite this article as: Yousif Alcheikhhamdon, Mina Hoorfar, Natural Gas Purification from Acid Gases using Membranes: A Review of the History, Features, Techno-Commercial Challenges, and Process Intensification of Commercial Membranes, *Chemical Engineering and Processing* <http://dx.doi.org/10.1016/j.cep.2017.07.009>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Chemical Engineering and Processing: Process Intensification

Natural Gas Purification from Acid Gases using Membranes: A Review of the History, Features, Techno-Commercial Challenges, and Process Intensification of Commercial Membranes

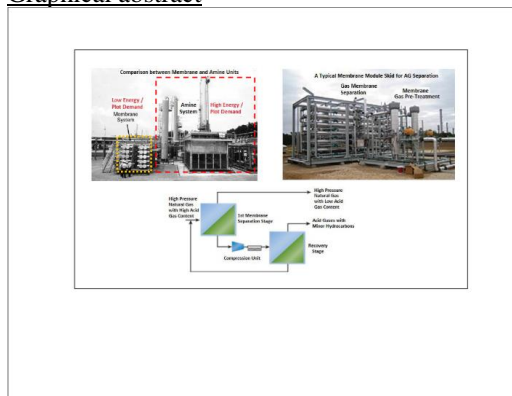
Yousif Alcheikhhamdon

Department of Mechanical Engineering
University of British Columbia, Okanagan Campus
Kelowna, Canada
yousif.hamdown@gmail.com

Mina Hoorfar

Department of Mechanical Engineering
University of British Columbia, Okanagan Campus
Kelowna, Canada
mina.hoorfar@ubc.ca

Graphical abstract



Highlights

- Membranes promote process intensification in acid gas removal units.
- Membrane selection is performed through an extensive techno-commercial evaluation.
- Pretreatment design is a key factor for membrane units' performance sustainability.
- Membrane unit stage count (single/multiple) depends on service specific factors.

Abstract

Acid gas removal from natural gas is an indispensable treatment process that is required to boost the produced gas quality prior to its utilization. There has been a prodigious number of advances made in the development of technically-reliable membranes. As a

Download English Version:

<https://daneshyari.com/en/article/4998135>

Download Persian Version:

<https://daneshyari.com/article/4998135>

[Daneshyari.com](https://daneshyari.com)