PATENT ASSIGNMENT

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SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Mahmoud Bahy Noureldin	04/07/2010

RECEIVING PARTY DATA

Name:	Saudi Arabian Oil Company
Street Address:	1 Eastern Avenue
City:	Dhahran
State/Country:	SAUDI ARABIA
Postal Code:	31311

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12767315

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER: 004159.001040 (SA640)

NAME OF SUBMITTER: Denver S. Bisignano

Total Attachments: 2

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> PATENT REEL: 024289 FRAME: 0220

OF \$40.00 12/6/315

ASSIGNMENT

WHEREAS, I MAHMOUD BAHY NOURELDIN ("ASSIGNOR"), have made certain improvements or inventions described in a patent application for United States Letters Patent titled SYSTEM, METHOD, AND PROGRAM PRODUCT FOR SYNTHESIZING HEAT EXCHANGER NETWORKS AND IDENTIFYING OPTIMAL TOPOLOGY FOR FUTURE RETROFIT, which claims priority to and the benefit of U.S. Provisional Patent Application No. 61/256,754, filed on October 30, 2009, and has executed the patent application with the United States Patent and Trademark Office, filed concurrently herewith, (hereinafter "Patent Application"); and

WHEREAS, Saudi Arabian Oil Company, a Company with Limited Liability of Saudi Arabia, with a business address of 1 Eastern Avenue, Dhahran 31311, Saudi Arabia (hereinafter referred to as "ASSIGNEE"), is desirous of acquiring the same.

NOW, THEREFORE, This Indenture Witnesseth: That for good and valuable consideration, receipt whereof is hereby acknowledged, said ASSIGNOR does hereby sell, assign and transfer to said ASSIGNEE, its successors and assigns, all right, title and interest in and to said Patent Application set forth above, the invention or inventions therein shown and described and any improvements on said invention heretofore or hereafter made, any divisions, continuations, or continuations-in-part of said Patent Application, and all patents, United States and foreign, to be granted upon any such applications or for the invention or inventions thereof, any reissues, reexaminations, continuations, continuations-in-part, or extensions of said patents, and all rights for past infringement related to any patents issued or to be issued thereon; and said ASSIGNOR does hereby authorize and request the Commissioner of Patents to issue all patents on said Patent Application or for the invention or inventions hereof, in accordance with this assignment.

And said ASSIGNOR for said consideration hereby covenants and agrees that said ASSIGNOR is the owner of the full title herein conveyed and has the right to convey the same, and agrees that said ASSIGNOR will communicate to said ASSIGNEE any facts known to said ASSIGNOR respecting said invention or inventions, and testify in any legal proceedings when called upon by said ASSIGNEE, sign all lawful papers deemed by said ASSIGNEE as expedient to vest in it the legal title herein sought to be conveyed or for the filing and

prosecution of all applications and patents, United States and foreign, including any disclaimers related thereto, and otherwise aid said ASSIGNEE, its successors and assigns, in obtaining full patent protection on said invention and enforcing proper protection under said patents, but in every instance at the ASSIGNEE's expense.

EXECUTED THIS ____ day of _

2010.

MAHMOUD BAHY NOURELDIN

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REEL: 024289 FRAME: 0222