

02-14-2003

To the Honorable Commissioner of Patents and

Original documents or copy thereof.

## 1. Name of conveying party(ies):

Neil K. McDougald Gregory P. Muldowney  
Sherri L. Boyd

102366050

## 2. Name and address of receiving party(ies)

Name: ExxonMobil Research and Engineering Company

(formerly Exxon Research and Engineering Co.)

Internal Address: Law DepartmentDocket No.: P2003J001Street Address: 1545 Route 22 East

P. O. Box 900

City: Annandale State: NJ ZIP: 08801-0900Additional name(s) & address(es) attached? ☐ Yes ☒ NoAdditional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

## 3. Nature of conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Assignment ☐ Change of Name  
☐ Other \_\_\_\_\_

Execution Date: January 9, 10, 25, 2003

## 4. Application number(s) or patent number(s):

10358760

If this document is being filed together with a new application, the execution date of the application is:  
January 9, 10, 25, 2003

## A. Patent Application No.(s)

## B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: ExxonMobil Research and Engineering Company  
(formerly Exxon Research and Engineering Co.)Internal Address: Law DepartmentStreet Address: 1545 Route 22 East

P. O. Box 900

City: Annandale State: NJ ZIP: 08801-09006. Total number of applications and patents involved: ☐

## 7. Total fee (37 CFR 3.41).....\$40.00

- ☐ Enclosed  
☒ Authorized to be charged to deposit account

## 8. Deposit account number:

05-1330

(Attach duplicate copy of this page if paying by deposit account)

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## 9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Malcolm D. Keen

Name of Person Signing  
Reg. No. 27,728

Signature

5 Feb 2003

Date

Total number of pages including cover sheet, attachments, and document: ☐

Mail documents to be recorded with required coversheet information to:

Assistant Commissioner for Patents, Box Assignments  
Washington, D.C. 20231

02/14/2003 ECOOPER 00000062 051330 10358760

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PATENT TRADEMARK OFFICE

PATENT

REEL: 013745 FRAME: 0179

**ASSIGNMENT**  
**INVENTOR or INVENTORS:**

Neil K. McDougald

Sherri L. Boyd

Gregory P. Muldowney

For good and valuable consideration, the undersigned person(s) named above, herein referred to as UNDERSIGNED, hereby agree(s) as follows:

1) UNDERSIGNED hereby assign(s) to ExxonMobil Research and Engineering Company (formerly Exxon Research and Engineering Company), a corporation of Delaware, its successors, legal representatives and assigns, herein referred to collectively as ASSIGNEE, the entire right, title and interest, for the United States and all foreign countries, in and to UNDERSIGNED's invention or improvement and to all patent applications and patents covering same which is described in a patent application entitled

**IMPROVED MULTIPHASE MIXING DEVICE WITH STAGED GAS INTRODUCTION**

said application having been executed on the \_\_\_\_\_ day(s) of \_\_\_\_\_, 2003, and being further identified as Case Number P2003J001; and all rights of priority created by said application under provisions of international conventions or treaties.

2) UNDERSIGNED agree(s) upon the request of ASSIGNEE to execute any and all applications for and documents relating to obtaining patents and the prosecution thereof for said invention or improvement, and any continuations of such applications or substitutes therefor or registrations thereof, and any specific separate assignments of any of the above required for recording in the United States Patent and Trademark Office and any foreign patent office that ASSIGNEE may deem necessary or expedient.

3) UNDERSIGNED agree(s) that in the event of any application based on said assigned invention or improvement, or patent issued thereon, or any reissue or application for the reissue thereof, becoming involved in priority of invention proceedings, UNDERSIGNED will cooperate with ASSIGNEE to the best of the ability of UNDERSIGNED in the matter of preparing and executing all documents and giving and producing evidence in support thereof.

4) UNDERSIGNED agree(s) to perform upon ASSIGNEE's request any and all affirmative acts to obtain United States and foreign patents covering said invention or improvement and to vest all rights therein hereby conveyed to ASSIGNEE, as fully and as entirely as the same would have been held and enjoyed by UNDERSIGNED if this assignment and sale had not been made.

5) UNDERSIGNED hereby authorize(s) ASSIGNEE to insert in this instrument the date(s) on which UNDERSIGNED executed the Declaration for the above-referenced patent application.

IN WITNESS WHEREOF, this assignment has been executed by UNDERSIGNED on the date opposite UNDERSIGNED's NAME.

Date \_\_\_\_\_ Inventor \_\_\_\_\_ (LS) Witness \_\_\_\_\_  
Neil K. McDougald

Date 10 Jan 2003 Inventor Sherri L. Boyd (LS) Witness Donald J Boyd  
Sherri L. Boyd

Date \_\_\_\_\_ Inventor \_\_\_\_\_ (LS) Witness \_\_\_\_\_  
Gregory P. Muldowney

Date \_\_\_\_\_ Inventor \_\_\_\_\_ (LS) Witness \_\_\_\_\_

Date \_\_\_\_\_ Inventor \_\_\_\_\_ (LS) Witness \_\_\_\_\_

Date \_\_\_\_\_ Inventor \_\_\_\_\_ (LS) Witness \_\_\_\_\_

ASSIGNMENT  
INVENTOR or INVENTORS:

Neil K. McDougald

Sherri L. Boyd

Gregory P. Muldowney

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IN WITNESS WHEREOF, this assignment has been executed by UNDERSIGNED on the date opposite UNDERSIGNED's NAME.

Date \_\_\_\_\_ Inventor Neil K. McDougald (LS) Witness \_\_\_\_\_

Date \_\_\_\_\_ Inventor Sherri L. Boyd (LS) Witness \_\_\_\_\_

Date 1/9/03 Inventor Gregory P. Muldowney (LS) Witness C. Markel

Date \_\_\_\_\_ Inventor \_\_\_\_\_ (LS) Witness \_\_\_\_\_

Date \_\_\_\_\_ Inventor \_\_\_\_\_ (LS) Witness \_\_\_\_\_

Date \_\_\_\_\_ Inventor \_\_\_\_\_ (LS) Witness \_\_\_\_\_

**ASSIGNMENT**  
**INVENTOR or INVENTORS:**

Neil K. McDougald

Sherri L. Boyd

Gregory P. Muldowney

For good and valuable consideration, the undersigned person(s) named above, herein referred to as UNDERSIGNED, hereby agree(s) as follows:

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said application having been executed on the 25th day(s) of January 2003, and being further identified as Case Number P2003J001; and all rights of priority created by said application under provisions of international conventions or treaties.

2) UNDERSIGNED agree(s) upon the request of ASSIGNEE to execute any and all applications for and documents relating to obtaining patents and the prosecution thereof for said invention or improvement, and any continuations of such applications or substitutes therefor or registrations thereof, and any specific separate assignments of any of the above required for recording in the United States Patent and Trademark Office and any foreign patent office that ASSIGNEE may deem necessary or expedient.

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IN WITNESS WHEREOF, this assignment has been executed by UNDERSIGNED on the date opposite UNDERSIGNED's NAME.

Date <u>1-25-03</u>	Inventor <u>Neil K. McDougald</u> (LS) Neil K. McDougald	Witness <u>Johnna McDougald</u>
Date _____	Inventor _____ (LS) Sherri L. Boyd	Witness _____
Date _____	Inventor _____ (LS) Gregory P. Muldowney	Witness _____
Date _____	Inventor _____ (LS)	Witness _____
Date _____	Inventor _____ (LS)	Witness _____
Date _____	Inventor _____ (LS)	Witness _____