### 501996545 07/20/2012

### PATENT ASSIGNMENT

## Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
Dietmar RUGER	06/08/2012
Olaf SCHULZE	06/04/2012
Anton ALTHAPP	06/17/2012
Christian EICHHORN	06/18/2012
Horst KRETSCHMER	06/06/2012

#### **RECEIVING PARTY DATA**

Name:	LINDE AG
Street Address:	Klosterhofstrasse 1
City:	Munchen
State/Country:	GERMANY
Postal Code:	80331

### PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13511243

### **CORRESPONDENCE DATA**

Fax Number: (202)621-1873 Phone: 2026211872

Email: conny.verret@strainpllc.com

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

via US Mail.

Correspondent Name: Strain & Strain PLLC
Address Line 1: 1455 Pennsylvania Ave NW

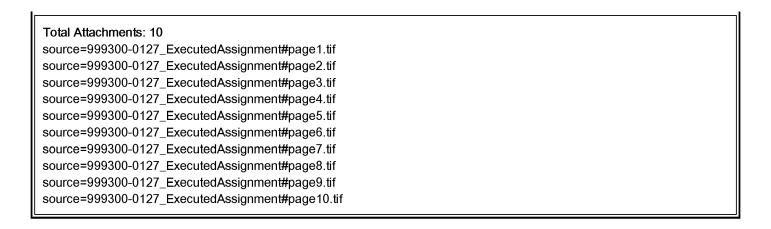
Address Line 2: Suite 400

Address Line 4: Washington, DISTRICT OF COLUMBIA 20004

ATTORNEY DOCKET NUMBER:	999300-0127	
NAME OF SUBMITTER:	Paul D. Strain	PATENT

501996545 REEL: 028598 FRAME: 0873

FOD \$40.00 135112/3



For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor has sold and assigned, and by these presents hereby sells and assigns, unto

### LINDE AG Klosterhofstrasse 1 80331 München, Germany

its successors and assigns, the entire right, title and interest, so far as concerns the United States and the Territories and Possessions thereof and all foreign countries in and to the invention in

## DEVICE AND METHOD FOR GENERATING A SYNTHESIS GAS FROM PROCESSED BIOMASS BY ENTRAINED-FLOW GASIFICATION

as set forth in this United States Patent Application

	executed concurrently herewith
	executed on
X	International Application No. PCT/EP2010/007181 filed November 26, 2010

said application for United States Letters Patent, including all divisional, renewal, substitute, continuation and Convention applications based in whole or in part upon said inventions or upon said applications, and any and all Letters Patent and reissues and extensions of Letters Patent granted for said inventions or upon said applications and every priority right that is or may be predicated upon or arise from said inventions, said applications, and said Letters Patent: said Assignee being hereby authorized to file patent applications in any or all countries on any or all said inventions in the name of the undersigned or in the name of said Assignee or otherwise as said Assignee may deem advisable, under the International Convention or otherwise; the Commissioner of Patents and Trademarks of the United States of America being hereby authorized to issue or transfer all said Letters Patent to said Assignee in accordance herewith; this assignment being under covenant, not only that full power to make the same is had by the undersigned, but also that such assigned right is not encumbered by any grant, license, or other right theretofore given, and that the undersigned will do all acts reasonably serving to ensure that the said inventions, patent applications and Letters Patent shall be held and enjoyed by said Assignee as fully and entirely as the same could have been held and enjoyed by the undersigned if this assignment had not been made, and particularly to execute and deliver to said Assignee all lawful documents including petitions, specifications, oaths, assignments, invention disclaimers, and lawful affidavits in form and substance which may be requested by said Assignee, to furnish said Assignee with all facts relating to said inventions or the history thereof and any and all documents, photographs, models, samples or other physical exhibits which may be of said inventions, and to testify in any proceedings relating to said inventions, patent applications and Letters Patent.

The undersigned hereby grant the firm of STRAIN & STRAIN PLLC the power to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

NAMES AND SIGNATURES OF INVENTORS		
Name: Dietmar RÜGER	Signature:	Date: 0 8. JUN. 2012
Name: Olaf SCHULZE	Signature:	Date:
Name: Anton ALTHAPP	Signature:	Date:
Name: Christian EICHHORN	Signature:	Date:
Name: Horst KRETSCHMER	Signature:	Date:
NAMES AND SIGNATURES OF WITNESSES		
Name:	Signature:	Date:
Name:	Signature:	Date:

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor has sold and assigned, and by these presents hereby sells and assigns, unto

### LINDE AG Klosterhofstrasse 1 80331 München, Germany

its successors and assigns, the entire right, title and interest, so far as concerns the United States and the Territories and Possessions thereof and all foreign countries in and to the invention in

## DEVICE AND METHOD FOR GENERATING A SYNTHESIS GAS FROM PROCESSED BIOMASS BY ENTRAINED-FLOW GASIFICATION

as set forth in this United States Patent Application

	executed concurrently herewith
	executed on
×	International Application No. PCT/EP2010/007181 filed November 26, 2010

said application for United States Letters Patent, including all divisional, renewal, substitute, continuation and Convention applications based in whole or in part upon said inventions or upon said applications, and any and all Letters Patent and reissues and extensions of Letters Patent granted for said inventions or upon said applications and every priority right that is or may be predicated upon or arise from said inventions, said applications, and said Letters Patent; said Assignee being hereby authorized to file patent applications in any or all countries on any or all said inventions in the name of the undersigned or in the name of said Assignee or otherwise as said Assignee may deem advisable, under the International Convention or otherwise; the Commissioner of Patents and Trademarks of the United States of America being hereby authorized to issue or transfer all said Letters Patent to said Assignee in accordance herewith; this assignment being under covenant, not only that full power to make the same is had by the undersigned, but also that such assigned right is not encumbered by any grant, license, or other right theretofore given, and that the undersigned will do all acts reasonably serving to ensure that the said inventions, patent applications and Letters Patent shall be held and enjoyed by said Assignee as fully and entirely as the same could have been held and enjoyed by the undersigned if this assignment had not been made, and particularly to execute and deliver to said Assignee all lawful documents including petitions, specifications, oaths, assignments, invention disclaimers, and lawful affidavits in form and substance which may be requested by said Assignee, to furnish said Assignee with all facts relating to said inventions or the history thereof and any and all documents, photographs, models, samples or other physical exhibits which may be of said inventions, and to testify in any proceedings relating to said inventions, patent applications and Letters Patent.

The undersigned hereby grant the firm of STRAIN & STRAIN PLLC the power to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

NAMES AND SIGNATURES OF INVENTORS		
Name: Dietmar RÜGER	Signature:	Date:
Name: Olaf SCHULZE	Signature: Mhe	Date: 04.06.12
Name: Anton ALTHAPP	Signature:	Date:
Name: Christian EICHHORN	Signature:	Date:
Name: Horst KRETSCHMER	Signature:	Date:
NAMES AND SIGNATURES OF WITNESSES		
Name:	Signature:	Date:
Name:	Signature:	Date:

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor has sold and assigned, and by these presents hereby sells and assigns, unto

## LINDE AG Klosterhofstrasse 1 80331 München, Germany

its successors and assigns, the entire right, title and interest, so far as concerns the United States and the Territories and Possessions thereof and all foreign countries in and to the invention in

## DEVICE AND METHOD FOR GENERATING A SYNTHESIS GAS FROM PROCESSED BIOMASS BY ENTRAINED-FLOW GASIFICATION

as set forth in this United States Patent Application

	executed concurrently herewith
	executed on
×	International Application No. PCT/EP2010/007181 filed November 26. 2010

said application for United States Letters Patent, including all divisional, renewal, substitute, continuation and Convention applications based in whole or in part upon said inventions or upon said applications, and any and all Letters Patent and reissues and extensions of Letters Patent granted for said inventions or upon said applications and every priority right that is or may be predicated upon or arise from said inventions, said applications, and said Letters Patent; said Assignee being hereby authorized to file patent applications in any or all countries on any or all said inventions in the name of the undersigned or in the name of said Assignee or otherwise as said Assignee may deem advisable, under the International Convention or otherwise; the Commissioner of Patents and Trademarks of the United States of America being hereby authorized to issue or transfer all said Letters Patent to said Assignee in accordance herewith; this assignment being under covenant, not only that full power to make the same is had by the undersigned, but also that such assigned right is not encumbered by any grant, license, or other right theretofore given, and that the undersigned will do all acts reasonably serving to ensure that the said inventions, patent applications and Letters Patent shall be held and enjoyed by said Assignee as fully and entirely as the same could have been held and enjoyed by the undersigned if this assignment had not been made, and particularly to execute and deliver to said Assignee all lawful documents including petitions, specifications, oaths, assignments, invention disclaimers, and lawful affidavits in form and substance which may be requested by said Assignee, to furnish said Assignee with all facts relating to said inventions or the history thereof and any and all documents, photographs, models, samples or other physical exhibits which may be of said inventions, and to testify in any proceedings relating to said inventions, patent applications and Letters Patent.

The undersigned hereby grant the firm of STRAIN & STRAIN PLLC the power to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

NAMES AND SIGNATURES OF INVENTORS		
Name: Dietmar RÜGER	Signature:	Date:
Name: Olaf SCHULZE	Signature:	Date:
Name: Anton ALTHAPP	Signature: Allap	Date: 17.06.2012
Name: Christian EICHHORN	Signature:	Date:
Name: Horst KRETSCHMER	Signature:	Date:
NAMES AND SIGNATURES OF WITNESSES		
Name:	Signature:	Date:
Name:	Signature:	Date:

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor has sold and assigned, and by these presents hereby sells and assigns, unto

### LINDE AG Klosterhofstrasse 1 80331 München, Germany

its successors and assigns, the entire right, title and interest, so far as concerns the United States and the Territories and Possessions thereof and all foreign countries in and to the invention in

## DEVICE AND METHOD FOR GENERATING A SYNTHESIS GAS FROM PROCESSED BIOMASS BY ENTRAINED-FLOW GASIFICATION

as set forth in this United States Patent Application

	executed concurrently herewith
	executed on
×	International Application No. PCT/EP2010/007181 filed November 26, 2010

said application for United States Letters Patent, including all divisional, renewal, substitute, continuation and Convention applications based in whole or in part upon said inventions or upon said applications, and any and all Letters Patent and reissues and extensions of Letters Patent granted for said inventions or upon said applications and every priority right that is or may be predicated upon or arise from said inventions, said applications, and said Letters Patent; said Assignee being hereby authorized to file patent applications in any or all countries on any or all said inventions in the name of the undersigned or in the name of said Assignee or otherwise as said Assignee may deem advisable, under the International Convention or otherwise; the Commissioner of Patents and Trademarks of the United States of America being hereby authorized to issue or transfer all said Letters Patent to said Assignee in accordance herewith; this assignment being under covenant, not only that full power to make the same is had by the undersigned, but also that such assigned right is not encumbered by any grant, license, or other right theretofore given, and that the undersigned will do all acts reasonably serving to ensure that the said inventions, patent applications and Letters Patent shall be held and enjoyed by said Assignee as fully and entirely as the same could have been held and enjoyed by the undersigned if this assignment had not been made, and particularly to execute and deliver to said Assignee all lawful documents including petitions, specifications, oaths, assignments, invention disclaimers, and lawful affidavits in form and substance which may be requested by said Assignee, to furnish said Assignee with all facts relating to said inventions or the history thereof and any and all documents, photographs, models, samples or other physical exhibits which may be of said inventions, and to testify in any proceedings relating to said inventions, patent applications and Letters Patent.

The undersigned hereby grant the firm of STRAIN & STRAIN PLLC the power to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

NAMES AND SIGNATURES OF INVENTORS				
Name: Dietmar RÜGER	Signature:	Date:		
Name: Olaf SCHULZE	Signature:	Date:		
Name: Anton ALTHAPP	Signature:	Date:		
Name: Christian EICHHORN	Signature:	Date: 1 8. JUN. 2012		
Name: Horst KRETSCHMER	Signature:	Date:		
NAMES AND SIGNATURES OF WITNESSES				
Name: MARGIT EICHHORN	Signature: A. Stind	Date: 1 8. JUN. 2012		
Name: WARLHEINZ EIGHAORN	Signature: 4 Eich	Date: 1 8. JUN. 2012		

PATENT

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor has sold and assigned, and by these presents hereby sells and assigns, unto

## LINDE AG Klosterhofstrasse 1 80331 München, Germany

its successors and assigns, the entire right, title and interest, so far as concerns the United States and the Territories and Possessions thereof and all foreign countries in and to the invention in

# DEVICE AND METHOD FOR GENERATING A SYNTHESIS GAS FROM PROCESSED BIOMASS BY ENTRAINED-FLOW GASIFICATION

as set forth in this United States Patent Application

	executed concurrently herewith
	executed on
×	International Application No. PCT/EP2010/007181 filed November 26, 2010

said application for United States Letters Patent, including all divisional, renewal, substitute, continuation and Convention applications based in whole or in part upon said inventions or upon said applications, and any and all Letters Patent and reissues and extensions of Letters Patent granted for said inventions or upon said applications and every priority right that is or may be predicated upon or arise from said inventions, said applications, and said Letters Patent; said Assignee being hereby authorized to file patent applications in any or all countries on any or all said inventions in the name of the undersigned or in the name of said Assignee or otherwise as said Assignee may deem advisable, under the International Convention or otherwise; the Commissioner of Patents and Trademarks of the United States of America being hereby authorized to issue or transfer all said Letters Patent to said Assignee in accordance herewith; this assignment being under covenant, not only that full power to make the same is had by the undersigned, but also that such assigned right is not encumbered by any grant, license, or other right theretofore given, and that the undersigned will do all acts reasonably serving to ensure that the said inventions, patent applications and Letters Patent shall be held and enjoyed by said Assignee as fully and entirely as the same could have been held and enjoyed by the undersigned if this assignment had not been made, and particularly to execute and deliver to said Assignee all lawful documents including petitions, specifications, oaths, assignments, invention disclaimers, and lawful affidavits in form and substance which may be requested by said Assignee, to furnish said Assignee with all facts relating to said inventions or the history thereof and any and all documents, photographs, models, samples or other physical exhibits which may be of said inventions, and to testify in any proceedings relating to said inventions, patent applications and Letters Patent.

The undersigned hereby grant the firm of STRAIN & STRAIN PLLC the power to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

NAMES AND SIGNATURES OF INVENTORS				
Name: Dietmar RÜGER	Signature:	Date:		
Name: Olaf SCHULZE	Signature:	Date:		
Name: Anton ALTHAPP	Signature:	Date:		
Name: Christian EICHHORN	Signature:	Date:		
Name: Horst KRETSCHMER	Signature: Kon Kunl	Date: 06.06.2c12		
NAMES AND SIGNATURES OF WITNESSES				
Name:	Signature:	Date:		
Name:	Signature:	Date:		