

Form PTO-1594
(Rev. 10/02)
OMB No. 0651-0027 (exp. 6/30/2005)
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RECORDATION FORM COVER SHEET TRADEMARKS ONLY

U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Catalytica, Inc., a Delaware corporation

- Individual(s)
- General Partnership
- Corporation-State
- Other _____
- Association
- Limited Partnership

Additional name(s) of conveying party(ies) attached? Yes No

3. Nature of conveyance:

- Assignment
- Security Agreement
- Other _____
- Merger
- Change of Name

Execution Date: 07/25/1995

2. Name and address of receiving party(ies)

Name: Catalytica Combustion Systems, Inc.

Internal Address: _____
Address: _____

Street Address: 430 Ferguson Drive

City: Mt. View State: CA Zip: 64043

- Individual(s) citizenship _____
- Association _____
- General Partnership _____
- Limited Partnership _____
- Corporation-State Delaware
- Other _____

If assignee is not domiciled in the United States, a domestic representative designation is attached: Yes No
(Designations must be a separate document from assignment)
Additional name(s) & address(es) attached? Yes No

4. Application number(s) or registration number(s):

A. Trademark Application No.(s) _____

B. Trademark Registration No.(s) 1398957

Additional number(s) attached Yes No

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

Name: Jennifer Lee Taylor

Internal Address: Morrison & Foerster LLP

Street Address: 425 Market Street

City: San Francisco State: CA Zip: 94105-2482

6. Total number of applications and registrations involved: _____

1

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

- Enclosed
- Authorized to be charged to deposit account

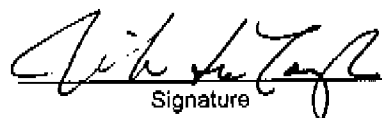
8. Deposit account number:

03-1952 (Ref. 220772400200)

DO NOT USE THIS SPACE

9. Signature.

Jennifer Lee Taylor
Name of Person Signing


Signature

April 14, 2003
Date

Total number of pages including cover sheet, attachments, and document: 12

Mail documents to be recorded with required cover sheet information to:
Commissioner of Patent & Trademarks, Box Assignments
Washington, D.C. 20231

<DOCUMENT>
 <TYPE>EX-2.1
 <SEQUENCE>2
 <FILENAME>0002.txt
 <DESCRIPTION>ASSIGNMENT AND ASSUMPTION AGREEMENT
 <TEXT>
 <PAGE>

Exhibit 2.1

ASSIGNMENT AND ASSUMPTION AGREEMENT

This Assignment and Assumption Agreement (the "Agreement") is entered into as of July 25, 1995 (the "Effective Date"), by and between Catalytica Combustion Systems, Inc. (the "Company"), a Delaware corporation, with its principal place of business at 430 Ferguson Drive, Mountain View, California 94943-5272 and Catalytica, Inc., a Delaware corporation (the "Assignor"):

R E C I T A L S

WHEREAS, Assignor has developed and owns certain technology, intellectual property and other property related to the catalysts, catalytic combustion and catalytic processes for use in combustion systems for gas turbine burners, furnaces and the like to improve combustion efficiency and/or reduce pollutants in the gaseous effluents (collectively, the "Catalytica Combustion Systems Line of Business"); and to the research and development, manufacture and commercialization of products, services and processes in the sensor field (collectively, the "Advanced Sensor Devices Line of Business").

WHEREAS, for valuable consideration, the Company desires to acquire all right, title and interest in and to the technology, intellectual property and other property and assume all liabilities related thereto.

NOW, THEREFORE, in consideration of the mutual promises contained herein, the parties agree as follows:

1. Definitions.

1.1. "Intellectual Property" shall mean any and all ideas,

procedures, processes, designs, inventions, discoveries, technologies, know-how, show-how, documents and works of authorship, including without limitation any and all (i) issued United States and foreign patents, utility models and the like, applications therefor pending before any relevant authority worldwide, any patents, utility models and the like issuing from such applications, and any additions, continuations, continuations-in-part, divisions, reissues or extensions based thereon, (ii) copyrights and other rights in works of authorship, (iii) mask work rights, (iv) trade secrets, (v) rights in trademarks, trade names, service marks or other product or corporate identifications and (vi) any other intellectual property rights that are in existence on the Effective Date, in each case specifically related to the Catalytica Combustion Systems Line of Business and the Advanced Sensor Devices Line of Business, including without limitation any works of authorship, set forth in Exhibits 1, 2, 3, and 4 hereto.

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1.2. "Transferred Property" shall mean the assets set forth in

Exhibits 1, 2, 3, and 4 hereto.

2. Assignment.

2.1. Assignment. Assignor hereby assigns, delivers and conveys to

Company and its successors and assigns all of his right, title and interest in and to the Intellectual Property and the Transferred Property, and the Company hereby accepts such assignment, delivery and conveyance of the Intellectual Property and Transferred Property and assumes the liabilities related thereto as described in Exhibits 1, 2, 3, and 4. As part of such assignment, Assignor

hereby assigns to Company the right to pursue any actions for infringement of the Intellectual Property which arose prior to the Effective Date.

3. Obligations of Assignor.

3.1. Further Assurances. Assignor agrees, upon the request and at

the expense of Company at any time, to take, or cause to be taken, such further action, including execution and delivery of further instruments of sale, transfer or assignment, as may be reasonably necessary for Company to obtain the full benefits of this Agreement and the transactions contemplated hereby, including without limitation the execution of a Bill of Sale in favor of the Company in the form attached hereto as Exhibit A.

3.2. Cooperation. Assignor further agrees, without charge to

Company but at Company's expense, to assist the Company in enforcing and defending its rights in the Intellectual Property.

3.3. Intellectual Property Prosecutions, Registrations and

Maintenance. Assignor agrees, without charge to Company but at Company's

expense, to cooperate with and assist Company in (a) the preparation, filing and prosecution of United States and foreign patent applications claiming the Intellectual Property and (b) the preparation and filing of copyright and trademark registrations with respect to the Intellectual Property, and to perform such acts, including without limitation the execution, verification, acknowledgment and delivery of patent applications and other documents, as Company may lawfully request in order to obtain or maintain patents or copyright or trademark registrations for the Intellectual Property worldwide.

3.4. Confidentiality. Assignor will maintain in confidence and will

not use or disclose to third parties the Intellectual Property. Assignor will have no obligation hereunder to the extent Assignor can demonstrate that:

(a) the Intellectual Property was publicly known and made generally available in the public domain prior to the Effective Date; or

(b) the Intellectual Property becomes publicly known and made generally available after the Effective Date through no action or inaction of Assignor, or

(c) the Intellectual Property is received by Assignor after the Effective Date from a third party without restrictions similar to the terms hereof on the third party's right to use or disclose.

4. Payment and Acceptance. In payment for the Intellectual Property and Transferred Property and assumption of the liabilities in Exhibits 1, 2, 3 and 4, the Company hereby agrees to issue to Assignor 7,000,000 shares of its Series A Preferred Stock, 500,000 shares of its Common Stock upon the execution of this Agreement, and a promissory note in the principal amount of \$1,225,000, in substantially the form attached hereto as Exhibit B.

5. General Provisions.

5.1. Counterparts. This Agreement may be executed simultaneously in two or more counterparts, each of which will be considered an original, but all of which together will constitute one and the same instrument.

5.2. Amendments. This Agreement may be amended or supplemented only by a writing that is signed by duly authorized representatives of both parties.

5.3. Entire Agreement. This Agreement, including all Exhibits to this Agreement, constitute the entire agreement between the parties relating to this subject matter and supersedes all prior or simultaneous representations, discussions and agreements, whether written or oral.

5.4. Choice of Law. This Agreement will be governed by and construed in accordance with the laws of the United States and the State of California as applied to agreements entered into and to be performed entirely within California between California residents.

5.5. Choice of Forum. The parties hereby submit to the jurisdiction of, and waive any venue objections against, the United States District Court for the Northern District of California, San Jose Branch and the Superior and Municipal Courts of the State of California, Santa Clara County, in any litigation between the parties arising out of this Agreement.

5.6. Waiver. No term or provision hereof will be considered waived by either party, and no breach excused by either party, unless such waiver or consent is in writing signed on behalf of the party against whom the waiver is asserted. No consent by either party to, or waiver of, a breach by either party, whether express or implied, will

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constitute a consent to, waiver of, or excuse of any other different or subsequent breach by either party.

5.7. Severability. If any part of this Agreement is found invalid or unenforceable, (a) the parties shall immediately enter into good faith negotiations to amend such party to achieve as nearly as possible the same economic effect as the original provision and (b) the remainder of this Agreement will remain in full force and effect.

5.8. Publicity. Assignor will not disclose the existence or terms of this Agreement unless granted the permission to do so in writing by Company prior to such disclosure.

5.9. Notice. Any notice provided for or permitted under this Agreement will be treated as having been given when (a) delivered personally, (b) sent by confirmed telex or telecopy, (c) sent by commercial overnight courier with written verification of receipt, or (d) mailed postage prepaid by certified or registered mail, return receipt requested, to the party to be notified, at the address set forth below, or at such other place of which the other party has been notified in accordance with the provisions of this Section.

If to the Assignor: Catalytica, Inc.
430 Ferguson Drive
Mountain View, California 94943-5272

If to the Company: Catalytica Combustion Systems, Inc.
430 Ferguson Drive
Mountain View, California 94943-5272

Such notice will be treated as having been received upon the earlier of actual receipt or five (5) days after posting.

IN WITNESS WHEREOF, the parties have entered into this Agreement as of the Effective Date.

THE COMPANY:

CATALYTICA COMBUSTION SYSTEMS, INC.

By: /s/ Robert L. Garten

Title: President

ASSIGNOR:

CATALYTICA, INC.

By: /s/ Ricardo B. Levy

Title: _____

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EXHIBITS 1 AND 2

DESCRIPTION OF THE INTELLECTUAL PROPERTY
AND THE TRANSFERRED PROPERTY

10. 1,854,206 shares of Common Stock of Advanced Sensor Devices, a California corporation.
11. Also see items listed on Exhibits 1, 2, 3 and 4 attached hereto.

DESCRIPTION OF ASSUMED LIABILITIES

Any and all liabilities whether accrued or contingent, known or unknown, and arising before or after the date hereof relating to the items listed on Exhibits 1, 2, 3 and 4 hereto.

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EXHIBIT 1

Description of Contracts -----

1. Letter of Intent between Allison Engine Company and Catalytica, Inc. dated January 11, 1993.
2. Purchase Order Agreements between Allison Engine Company and Catalytica, Inc. dated August 11, 1994 and December 21, 1994, including Amendment No. 1 dated February 21, 1995 to the December 21, 1994 Purchase Order Agreement.
3. Agreement between Tanaka Kikinzoku Kogyo K.K. and Catalytica, Inc. dated January 31, 1995.
4. Joint Test Agreement among General Electric Company, Tanaka Kikinzoku Kogyo K.K. and Catalytica, Inc. dated November 21, 1990 and amendments thereto.
5. Agreement among Honda R&D Company, Tanaka Kikinzoku Kogyo K.K. and Catalytica, Inc. dated November 26, 1991.
6. Loan Agreement between Tanaka Kikinzoku Kogyo K.K. and Catalytica, Inc. dated November 27, 1991.
7. Service Agreement between Pittiglio, Rubin, Todd and McGrath and Catalytica, Inc. dated April 28, 1994.
8. Addendum to Purchase Order HD 9405646 between Solar Turbines Incorporated and Catalytica, Inc. dated September 2, 1994.
9. Confirmation Agreement Regarding Amendment of the Agreement with Honda Technical Research Institute K.K. dated November 26, 1991 between Tanaka Kikinzoku Kogyo K.K. and Catalytica, Inc.
10. Cooperative Research and Development Agreement No. TSB-841-94 between The Regents for the University of California, Lawrence Livermore National Laboratory and Catalytica, Inc. dated (last signed) January 20, 1995.
11. Marketing Communications Program Agreement between Michael Scott Studios and Catalytica, Inc. dated March 22, 1995.

12. Collaboration Agreement among AGC Project Development, Inc., Tanaka Kikinzoku Kogyo K.K. and Catalytica, Inc. dated November 2, 1993.
13. Various Confidential Disclosure Agreements and Consulting Agreements relating to Catalytica Combustion Systems, Inc.'s business.

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EXHIBIT 2

DESCRIPTION OF THE INTELLECTUAL PROPERTY
AND THE TRANSFERRED PROPERTY

1. Patents and Patent Applications

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Title	Patent or Patent Application No.	Country	Owned or
<S> Graded Palladium-Containing Partial Combustion Catalyst	<C> 5,258,349	<C> U.S.	<C> Co-owned
Graded Palladium-Containing Partial Combustion Catalyst and a Process for Using It	5,248,251	U.S.	Co-owned
Catalyst Structure Having Integral Heat Exchange	5,250,489	U.S.	Co-owned
Catalyst Structure Having Integral Heat Exchange	2,096,950	Canada	Co-owned
Catalyst Structure Having Integral Heat Exchange	911112146	China	Co-owned
Catalyst Structure Having Integral Heat Exchange	92902350	EPO	Co-owned
Catalyst Structure Having Integral Heat Exchange	04502665	Japan	Co-owned
Catalyst Structure Having Integral Heat Exchange	93701567	Korea	Co-owned
Catalyst Structure Having Integral Heat Exchange	9304314600	Russia	Co-owned
Catalyst Structure Having Integral Heat Exchange	81104052	Taiwan	Co-owned

U.S. Co-owned

A Partial Combustion Process
and a Catalyst Structure for
Use in the Process

5,326,253

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Title	Patent or Patent Application No.	Country	Owned or
			<C>
		Canada	Co-owned
Palladium Partial Combustion Catalysts and a Process for Using Them	2,096,949		
		EPO	Co-owned
Palladium Partial Combustion Catalysts and a Process for Using Them	929059228		
		Japan	Co-owned
Palladium Partial Combustion Catalysts and a Process for Using Them	04505668		
		Korea	Co-owned
Palladium Partial Combustion Catalysts and a Process for Using Them	93701566		
		Russia	Co-owned
Palladium Partial Combustion Catalysts and a Process for Using Them	9303997100		
		U.S.	Co-owned
Partial Combustion Process and Catalyst Structure for Use in the Process	08/371,561		
		U.S.	Co-owned
Multistage Process for Combusting Fuel Mixtures Using Oxide	5,232,357		
		U.S.	Co-owned
Process for Burning Combustible Mixtures	5,425,632		
		U.S.	Co-owned
Partial Combustion Catalyst of Palladium on a Zirconia Support and a Process for Using It	5,259,754		

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Title	Patent or Patent Application No.	Country	Owned or
	<C>	<C>	<C>
Partial Combustion Catalyst of Palladium on a Zirconia Support and a Process for Using It	5,405,260	U.S.	Co-owned
Mixed Metal Partial Combustion Catalyst Containing Palladium and a Process for Using It	08/367,674	U.S.	Co-owned
Two-stage Process for Combusting Fuel Mixtures	5,183,401	U.S.	Co-owned
Cooled Support Structure for a Catalyst	08/165,966	U.S.	Co-owned
Cooled Support Structure for a Catalyst	PCT/US94/14153	PCT	Co-owned
Cooled Support Structure for a Catalyst	84100544	EPO	Co-owned
Improved Catalyst Structure Employing Integral Heat Exchange	08/205,279	U.S.	Co-owned
Improved Catalyst Structure Employing Integral Heat Exchange	PCT/US95/01903	PCT	Co-owned
Improved Catalyst Structure Employing Integral Heat Exchange	84102752	Taiwan	Co-owned
Multistage Process for Combusting Fuel Mixtures	5,281,128	U.S.	Co-owned
Multistage Process for Combusting Fuel Mixtures	2,096,951	Canada	Co-owned
Multistage Process for Combusting Fuel Mixtures	29021145	EPO	Co-owned
Multistage Process for		Japan	Co-owned

04502666

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Title	Patent or Patent Application No.	Country	Owned or
<S>	<C>	<C>	<C>
Multistage Process for Combusting Fuel Mixtures	3701568	Korea	Co-owned
Multistage Process for Combusting Fuel Mixtures	93043040200	Russia	Co-owned
Improved Process and Catalyst Structure Employing Integral Heat Exchange with Optional Downstream Flameholder	08/378,206	U.S.	Co-owned
Improved Process and Catalyst Structure Employing Integral Heat Exchange with Optional Downstream Flameholder	PCT/US95/01989	PCT	Co-owned
Improved Process and Catalyst Structure Employing Integral Heat Exchange with Optional Downstream Flameholder	84102753	Taiwan	Co-owned
Improved Support Structure for a Catalyst	08/462,639	U.S.	Co-owned and

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EXHIBIT 3

Description of Contracts

1. Service Agreement between Logical Services, Incorporated and Catalytica, Inc. dated June 10, 1994.
2. Service Agreement between MQA and Catalytica, Inc. dated June 10, 1994.

3. Contract for Research between Gas Research Institute and Catalytica, Inc. dated November 5, 1991 and amendments thereto.
4. Cooperative Research and Development Agreement between Naval Research Laboratory and Catalytica, Inc. dated (last signed) March 2, 1994.
5. Field Test Agreement between Shell Development Company and Catalytica, Inc. dated January 31, 1994.
6. Field Test Agreement between Occidental Chemical Corporation and Catalytica, Inc. dated (effective date) December 15, 1994.
7. Contract No. 9027594 between Pacific Gas Transmission Company and Catalytica, Inc. dated November 14, 1994.
8. Field Test Agreement among Southern California Gas Company, Central Plants, Inc. and Catalytica, Inc. dated November 4, 1994.
9. Field Test Agreement between Texas Eastern Transmission Corporation and Catalytica, Inc. dated (last signed) October 18, 1994.
10. Vendor Leasing and Remarketing Agreement between Trinity Capital Corporation and Catalytica, Inc. dated January 26, 1995.
11. Various Confidential Disclosure Agreements and Consulting Agreements relating to Advanced Sensor Devices Inc.'s business.

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EXHIBIT 4

Description of the Intellectual Property

and the Transferred Property

1. Patents and Patent Applications

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Title	Patent or Patent Application No.	Country	Own License
<S>	<C>	<C>	<C>
NOx Sensor Assembly	09/080,679	U.S.	
NOx Sensor Assembly	919117051	EPO(1)	
NOx Sensor Assembly	3511506	Japan	
NOx Sensor Assembly	80109877	Taiwan	
NOx Sensor Assembly and Process for Detecting NOx	5,314,828	U.S.	
NOx Sensor Assembly and Process for Detecting NOx	911096175	China	
NOx Sensor Assembly and Process for Detecting NOx	919122218	EPO(2)	

NOx Sensor Assembly and Process for Detecting NOx	3511510	Japan
NOx Sensor Assembly and Process for Detecting NOx	92703214	Korea
NOx Sensor Assembly and Process for Detecting NOx	80109878	Taiwan
SOx Sensor and Process for Detecting SOx	5,338,515	U.S.

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(1) EPO Application (designated states: Austria, Belgium, Denmark, France, Germany, Great Britain, Greece, Italy, Luxembourg, Netherlands, Spain, Sweden and Switzerland).

(2) Same as "1" above.

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EXHIBIT A

BILL OF SALE

Catalytica, Inc. ("Catalytica"), for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, does hereby grant, bargain, sell, convey, transfer, assign, set over and deliver to Catalytica Combustion Systems, Inc., a Delaware corporation, its successors and assigns, all of the right, title and interest of Catalytica in and to the tangible assets listed on Exhibits 1, 2, 3 and 4 hereto.

IN WITNESS WHEREOF, the undersigned has executed and delivered this instrument, effective as of the 25th day of July, 1995.

CATALYTICA, INC

By: /s/ Ricardo B. Levy

Title: -----

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