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To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.	
Name of conveying party(ies):	2. Name and address of receiving party(ies)
Ralph DALLA BETTA (09/03/2003) and	Name: Catalytica Energy Systems, Inc.
Joel CIZERON (09/03/2003)	Internal Address:
Additional name(s) of conveying party(ies) attached? Yes X No	Street Address:
3. Nature of conveyance/Execution Date(s):	
Execution Date(s): in parentheses after inventor name	430 Ferguson Drive, Building #3
X Assignment Merger Change of Name	
Security Agreement Joint Research Agreement	City: Mountain View
Government Interest Assignment	State: California
Executive Order 9424, Confirmatory License	Country: United States of America Zip: 94043-5272
Other	Additional name(s) & address(es) Yes X No attached:
4. Application or patent number(s):  A. Patent Application No.(s)  X	This document is being filed together with a new application.  B. Patent No.(s)
Additional numbers attached?	Yes X No
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved:
Name: Mika Mayer	
MORRISON & FOERSTER LLP	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00
Internal Address: Atty. Dkt.: 220772009701	Authorized to be charged by credit card
Street Address: 755 Page Mill Road	x Authorized to be charged to deposit account
	Enclosed
	None required (government interest not affecting title)
City: Palo Alto	8. Payment Information
State: CA Zip: 94304-1018	a. Credit Card Last 4 Numbers
Phone Number: (650) 813-4298	Expiration Date
Fax Number: (650) 494-0792	b. Deposit Account Number 03-1952
Email Address: MMayer@mofo.com	Authorized User Name Mika Mayer
9. Signature:	
	h 0 0000
Signature	June 9, 2006  Date
<b></b>	Total number of pages including cover
Mika-Mayer - 47,777 Name of Person Signing	sheet, attachments, and documents:

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rney Docket No.: 220772009721

## ASSIGNMENT JOINT

THIS ASSIGNMENT, by Ralph DALLA BETTA and Joel CIZERON (hereinafter referred to as the assignors), residing at 865 Doverton Square, Mountain View, California 94040 and 845 Mowry Avenue, Apt 148, Fremont, California 94536, respectively, witnesseth:

WHEREAS, said assignors have invented certain new and useful improvements in SYSTEM AND METHODS FOR IMPROVED EMISSION CONTROL OF INTERNAL COMBUSTION ENGINES USING PULSED FUEL FLOW, set forth in an application for Letters Patent of the United States, bearing Serial No. 10/431,171 and filed on May 6, 2003; and

WHEREAS, Catalytica Energy Systems, Inc., a corporation duly organized under and pursuant to the laws of Delaware and having its principal place of business at 430 Ferguson Drive, Building #3, Mountain View, California 94043-5272 (hereinafter referred to as the assignee) is desirous of acquiring the entire right, title and interest in and to said inventions and said application for Letters Patent of the United States, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon:

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, said assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto said assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions, application for Letters Patent, and any and all Letters Patent or Patents in the United States of America and all foreign countries which may be granted therefor and thereon, and in and to any and all divisions, continuations and continuations-in-part of said application, or reissues or extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by said assignee, for its own use and the use of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted, as fully and entirely as the same would have been held and enjoyed by the assignors, had this sale and assignment not been made.

AND for the same consideration, said assignors hereby covenant and agree to and with said assignee its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, said assignors are the sole and lawful owners of the entire right, title and interest in and to said inventions and the application for Letters Patent above-mentioned, and that the same are unencumbered and that said assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

AND for the same consideration, said assignors hereby covenant and agree to and with said assignee, its successors, legal representatives and assigns, that said assignors will, whenever counsel of said assignee, or the counsel of its successors, legal representatives and assigns, shall advise that any proceeding in connection with said inventions, or said application for Letters Patent, or any proceeding in connection with Letters Patent for said inventions in any country, including interference proceedings, is lawful and desirable, or that any division, continuation or continuation-in-part of any application for Letters Patent or any reissue or extension of any Letters Patent, to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of Letters Patent for said inventions, without charge to said assignee, its successors, legal representatives and assigns, but at the cost and expense of said assignee, its successors, legal representatives and assigns.

AND said assignors hereby request the Commissioner of Patents to issue said Letters Patent of the United States to said assignee as the assignee of said inventions and the Letters Patent to be issued thereon for the sole use of said assignee, its successors, legal representatives and assigns.

Date Date

Ralph DALLA BETTA

3 Scot 7003 Date

Inel CIZERON

RECORDED: 06/09/2006

pa-808980

PATENT REEL: 017967 FRAME: 0961