OMB No. 0651-0011 (exp. 494) Tah Settings 0 0 0 ▼	FORM PT0-1595 RECOI 08 -	21-2001 U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office
To the Honorable Commissioner of Paten  1. Name of conveying partyles!  Arthur D. Little, Inc.    Additional namels  of conveying partyles	OMB No. 0651-0011 (eyp. 4/94)	
2. Name and address of receiving partyles)  Additional name(s) of conveying partyles) attached? O'Yes The litternal Address:  Additional name(s) of conveying partyles) attached? O'Yes The litternal Address:  Additional name(s) of conveying partyles) attached? O'Yes The litternal Address:  Additional name(s) of conveying partyles) attached? O'Yes The litternal Address:  Additional name(s) of conveying partyles) attached? O'Yes The litternal Address:  Additional name(s) of conveying partyles) attached? O'Yes The litternal Address:  Additional name(s) of conveying partyles) attached? O'Yes The litternal Address:  Additional name(s) of conveying partyles) attached? O'Yes The litternal Address:  Execution Date:  Additional name(s) of conveying partyles) attached? O'Yes The litternal Address:  Application number(s) or partyles of Name  Additional name(s) of address:  Application number(s) or partyles of Name  Additional numbers attached? O'Yes The litternal Address:  Application number(s) or partyles on the application is:  Additional numbers attached? O'Yes The litternal Address:  Additional numbers attached? O'Yes The litternal Address of partyles whom correspondence concerning document should be maled:  Name:  Kevin D. Erickson  Additional numbers attached? O'Yes The litternal Address:  Authorized to be charged to deposit account  Address:  Authorized to be charged to deposit account  Authorized		similar I de suma más en a seu a base a f
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Additional name(s) of conveying partylies) attached? nYes ■No  3. Nature of conveyance: ■ Assignment	Arthur D. Little, Inc.	Name: Gas Research Institute
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■ Assignment □ Security Agreement □ Change of Name □ Other. □ Other. □ City: Des Plaines State: Illinois Zip: 60018-1804  Additional name(s) & address(es) attached? □ Yes ■ No  Additional name(s) & address(es) attached? □ Yes ■ No  Additional name(s) & address(es) attached? □ Yes ■ No  A Patent Application No.(s) □ 09/839,595  Additional numbers attached? □ Yes ■ No  5. Name and address of party to whom correspondence concerning document should be mailed: Name: Kevin D. Erickson Internal Address: Pauley Petersen Kinne & Fejer □ Authorized to be charged to deposit account  Street Address: 2800 West Higgins Road □ Authorized to be charged to deposit account  Street Address: 2800 West Higgins Road Suite 365 □ City: Hoffman Estates State: IL Zip: 60195  M/21/2001 TB1821 0000006 09839575  DO NOT USE THIS SPACE  09. Research Address: Signing Regis. No. 38,736  Total number of pages including cover sheet, attachments, and document:  Attach duplicate copy of this page if paying by deposit account)  Name of Petron Signing Regis. No. 38,736  Total number of pages including cover sheet, attachments, and document:  Altoracy Assistent Commissioner for Patents, 80x Assignments Washington, D.C. 20231	AND THE RESIDENCE OF THE PARTY	1700 G . (1 M / P / P
City: Des Plaints State: Illinois Zip: 60018-1804  Additional name(s) & address(es) attached?		Street Address: 1700 South Mount Prospect Road
City: Dcs Plaines State: Illinois Zip: 60018-1804  Additional name(s) & address(es) attached? State: Ves No  Application number(s) or patent number(e): If this document is being filed together with a new application, the execution date of the application is:  A. Patent Application No.(s)  B. Patent No.(s)  09/839,595  Additional numbers attached? State: No  5. Name and address of party to whom correspondence concerning document should be mailed:  Name: Kevin D. Erickson  Internal Address: Pauley Petersen Kinne & Fejer  Street Address: 2800 West Higgins Road  Suite 365  City: Hoffman Estates State: IL Zip: 60195  De Not Use THIS SPACE  10 Authorized to be charged to deposit account:  (Attach duplicate copy of this page if paying by deposit account)  11 Authorized to be charged to deposit account.  12 Authorized to be charged to deposit account.  13 Deposit Account:  (Attach duplicate copy of this page if paying by deposit account)  15 Authorized to be charged to deposit account.  16 Authorized to be charged to deposit account.  17 Authorized to be charged to deposit account.  18 Deposit Account:  (Attach duplicate copy of this page if paying by deposit account)  19 Authorized to be charged to deposit account.  10 Authorized to be charged to deposit account.  11 Authorized to be charged to deposit account.  12 Authorized to be charged to deposit account.  13 Deposit Account :  14 Authorized to be charged to deposit account.  15 Authorized to be charged to deposit account.  16 Authoriz		
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4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is:  A. Patent Application No.(s)  09/839,595  Additional numbers attached? □ Yes ■ No  5. Name and address of party to whom correspondence concerning document should be mailed:  Name: Kevin D. Erickson  Internal Address: Pauley Petersen Kinne & Fejer  Street Address: Pauley Petersen Kinne & Fejer  Street Address: 2800 West Higgins Road  Suite 365  City: Hoffman Estates State: □ Zip: 60195  08/21/2001 TBIATI 0000000 0983955  Do NOT USE THIS SPACE  9. Resident 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  Kevin D. Erickson  Name of Person Signing Regis. No. 38,736  Total number of pages including cover sheet, attachments, and document: ☐  Attorney  Mail documents to be recorded with required cover sheet information to:  Assistent Commissioner for Patents, Box Assignments  Washington, D.C. 20231	□ Other	City: Des Plaines State: Illinois Zip: 00018-1804
A. Patent Application No.(s)  09/839,595  Additional numbers attached? □ Yes ■ No  5. Name and address of party to whom correspondence concerning document should be mailed:  Name: Kevin D. Erickson  Internal Address: Pauley Petersen Kinne & Fejer  Street Address: 2800 West Higgins Road  Suite 365  City: Hoffman Estates State: □ Zip: 60195  B/21/2001 TBIA21 0000006 9839595  DO NOT USE THIS SPACE  DI NOT USE THIS SPACE  Signature  Weyner of the original document  Kevin D. Erickson  Signature  Attorney  Mail documents to be recorded with required cover sheet, attachments, and document:  Attorney  Mail documents to be recorded with required cover sheet information to:  Assistant Commissioner for Patents, Box Assignments  Washington, D.C. 20231	Execution Date: 28 June 2001	Additional name(s) & address(es) attached? □ Yes ■ No
A. Patent Application No.(s)  09/839,595  Additional numbers attached? □ Yes ■ No  5. Name and address of party to whom correspondence concerning document should be mailed:  Name: Kevin D. Erickson  Internal Address: Pauley Petersen Kinne & Fejer  Street Address: 2800 West Higgins Road  Suite 365  City: Hoffman Estates State: □ Zip: 60195  De Not Use THIS SPACE  9. PaseMent 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  Kevin D. Erickson  Name of Person Signing Regis. No. 38,736  Total number of applications and patents involved: 1  7. Total fee (37 CFR 3.41)	4. Application number(s) or patent number(s):  If this document is being filed together with a new application, the execution date of the application is:	
Additional numbers attached?  See No  5. Name and address of party to whom correspondence concerning document should be mailed:  Name: Kevin D. Erickson  Internal Address: Pauley Petersen Kinne & Fejer  Street Address: 2800 West Higgins Road  Suite 365  City: Hoffman Estates  State: IL Zip: 60195  De/El/2001 TBIAZI 0000006 09839395  DO NOT USE THIS SPACE  9. Repeated and signature.  To the best of my knowledge and belief, theyforegoing information is true and correct and any attached copy is a true copy of the original document  Kevin D. Erickson  Name of Person Signing Regis. No. 38,736  Mail documents to be recorded with required cover sheet information to:  Assistant Commissioner for Patents, Box Assignments  Washington, D. C. 20231		1
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5. Name and address of party to whom correspondence concerning document should be mailed:  Name: Kevin D. Erickson  Internal Address: Pauley Petersen Kinne & Fejer  Street Address: 2800 West Higgins Road  Suite 365  City: Hoffman Estates  State: IL Zip: 60195  DO NOT USE THIS SPACE  9. Particular 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  Kevin D. Erickson  Name of Person Signing  Regis. No. 38,736  Mail documents to be recorded with required cover sheet information to:  Assistant Commissioner for Patents, Box Assignments  Washington, D. C. 20231	,	attached? □ Yes ■ No
Name: Kevin D. Erickson  Internal Address: Pauley Petersen Kinne & Fejer    Total fee (37 CFR 3.41)		
Internal Address: Pauley Petersen Kinne & Fejer  Street Address: 2800 West Higgins Road  Suite 365  City: Hoffman Estates State: IL Zip: 60195  OB/21/2001 TBI21 0000006 9839595  DO NOT USE THIS SPACE  OB. PS-2004 Internal Address: 2800 West Higgins Road  Suite 365  Obline First Account:  (Attach duplicate copy of this page if paying by deposit account)  Obline First Account:  (Attach duplicate copy of this page if paying by deposit account)  Obline First Account:  (Attach duplicate copy of this page if paying by deposit account)  Obline First Account:  (Attach duplicate copy of this page if paying by deposit account)  Obline First Account:  (Attach duplicate copy of this page if paying by deposit account)  Obline First Account:  (Attach duplicate copy of this page if paying by deposit account)  Obline First Account:  (Attach duplicate copy of this page if paying by deposit account)  (Attach duplicate copy of this page if paying by deposit account)  Obline First Account:  (Attach duplicate copy of this page if paying by deposit account)  (Attach duplicate copy of this page if paying by deposit account)  (Attach duplicate copy of this page if paying by deposit account)  (Attach duplicate copy of this page if paying by deposit account)  (Attach duplicate copy of this page if paying by deposit account)  (Attach duplicate copy of this page if paying by deposit account)  (Attach duplicate copy of this page if paying by deposit account)	concerning document should be mailed:	
Authorized to be charged to deposit account  Street Address: 2800 West Higgins Road  Suite 365  City: Hoffman Estates State: IL Zip: 60195  8. Deposit Account:  (Attach duplicate copy of this page if paying by deposit account)  8. Deposit Account:  (Attach duplicate copy of this page if paying by deposit account)  8. Deposit Account:  (Attach duplicate copy of this page if paying by deposit account)  8. Deposit Account:  (Attach duplicate copy of this page if paying by deposit account)  8. Deposit Account:  (Attach duplicate copy of this page if paying by deposit account)  8. Deposit Account:  (Attach duplicate copy of this page if paying by deposit account)  8. Deposit Account:  (Attach duplicate copy of this page if paying by deposit account)  9. PSublimant and signature.  40.00 IP  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  Kevin D. Erickson  Name of Person Signing  Regis. No. 38,736  Total number of pages including cover sheet, attachments, and document:  3  Attorney  Mail documents to be recorded with required cover sheet information to:  Assistant Commissioner for Patents, Box Assignments  Washington, D.C. 20231	Name: Kevin D. Erickson	7. Total fee (37 CFR 3.41)\$ 40.00
Street Address: 2800 West Higgins Road  Suite 365  City: Hoffman Estates State: IL Zip: 60195  DO NOT USE THIS SPACE  9. PERSONNent 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  Kevin D. Erickson Name of Person Signing Regis. No. 38,736  Total number of pages including cover sheet, attachments, and document:  Attorney Docket No.:  Mail documents to be recorded with required cover sheet information to: Assistant Commissioner for Patents, Box Assignments GRI-01-001  Washington, D.C. 20231	Internal Address: Pauley Petersen Kinne & Fejer	■ Enclosed
Street Address: 2800 West Higgins Road  Suite 365  City: Hoffman Estates State: IL Zip: 60195  DO NOT USE THIS SPACE  9. PERSONNent 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  Kevin D. Erickson Name of Person Signing Regis. No. 38,736  Total number of pages including cover sheet, attachments, and document:  Attorney Docket No.:  Mail documents to be recorded with required cover sheet information to: Assistant Commissioner for Patents, Box Assignments GRI-01-001  Washington, D.C. 20231		G Authorized to be oberged to deposit account
Suite 365  City: Hoffman Estates State: IL Zip: 60195  De/21/2001 TBIAZI 0000006 09839595  Do NOT USE THIS SPACE  98. PERSONNETH 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  Kevin D. Erickson  Name of Person Signing Regis. No. 38,736  Total number of pages including cover sheet, attachments, and document:  Attorney Docket No.:  Assistant Commissioner for Patents, Box Assignments  Washington, D.C. 20231		
City: Hoffman Estates State: IL Zip: 60195  06/21/2001 TDIAZ1 0000006 09839595 DO NOT USE THIS SPACE  09. PS-854 nent 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  Kevin D. Erickson  Name of Person Signing  Regis. No. 38,736 Total number of pages including cover sheet, attachments, and document:  Attorney  Docket No.:  Assistant Commissioner for Patents, Box Assignments  GRI-01-001 Washington, D.C. 20231		·
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Og. Passinent 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  Kevin D. Erickson  Name of Person Signing  Regis. No. 38,736  Total number of pages including cover sheet, attachments, and document:  Mail documents to be recorded with required cover sheet information to:  Assistant Commissioner for Patents, Box Assignments  GRI-01-001  Washington, D.C. 20231		
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Attorney Docket No.: GRI-01-001  Mail documents to be recorded with required cover sheet information to: Assistant Commissioner for Patents, Box Assignments Washington, D.C. 20231	Name of Person Signing Signature Date	
Docket No.:  GRI-01-001  Assistant Commissioner for Patents, Box Assignments  Washington, D.C. 20231	Regis. No. 38,736 Total number of pages including cover sheet, attachments, and document: 3	
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or enclosed) is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on

Signature

PATENT

P1009/14

**REEL: 012077 FRAME: 0629** 

## ASSIGNMENT

WHEREAS, Arthur D. Little, Inc., a corporation duly organized and existing under and by virtue of the laws of the State of Massachusetts and having its principal office and place of business at Acorn Park, Cambridge, Massachusetts 02140-2390, hereinafter referred to as ASSIGNOR, has acquired all rights, title and interest of Steven CASEY and John BOWMAN, in certain new and useful improvements in an invention entitled

## DIGITAL MODULATION FOR A GAS-FIRED HEATER

which is described and claimed in an application for Letters Patent of the United States having Serial No. 09/839,595, filed on 20 April 2001 and naming as inventors Steven CASEY and John BOWMAN; said improvements as described and claimed in said application for Letters Patent of the United States, being hereinafter referred to as said "Invention"; and

WHEREAS, Gas Research Institute, a not-for-profit corporation duly organized and existing under and by virtue of the laws of the State of Illinois and having its principal office and place of business at 1700 South Mount Prospect Road, Des Plaines, Illinois 60018-1804, hereinafter referred to as ASSIGNEE, is desirous of acquiring ASSIGNOR'S entire rights, title and interest in and to said Invention, said application above-identified, and in, to and under Letters Patent therefor in the United States and countries foreign thereto.

NOW THEREFORE BE IT KNOWN THAT, for and in consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, ASSIGNOR has sold, assigned, transferred and set over and by these presents does hereby sell, assign, transfer and set over to and unto ASSIGNEE, its successors and assigns ASSIGNOR'S entire rights, title and interest in and to said Invention, and in, to and under the above-identified application and all other applications for Letters Patent of the United States and countries foreign thereto, and in, to and under all divisions, reissues, continuations, extensions and reexaminations thereof, and covenants that ASSIGNOR has the full right so to do; and the Commissioner of Patents is hereby authorized and requested to issue all United States Letters Patent on said Invention included herein to ASSIGNEE, as assignee of ASSIGNOR'S entire interest.

GRI-01-001 1 14/S

PATENT REEL: 012077 FRAME: 0630 ASSIGNOR further agrees to communicate to ASSIGNEE or its representatives or agents all facts and information known or available to ASSIGNOR regarding said Invention including evidence for interference purposes or for other legal proceedings, whenever requested; to testify in any interference or other proceedings; to execute and deliver, on request, all lawful papers including original, divisional, continuing and reissue applications, renewals, assignments, powers of attorney, declarations, oaths, affidavits, depositions, etc.; and to generally do everything possible to aid ASSIGNEE, its successors and assigns, but at the expense of ASSIGNEE, in obtaining and enforcing proper protection for said Invention, in the United States and countries foreign thereto.

Arthur D. Little, Inc.

Signature

KAREH BENGOLK

Name

VICE PRESIDENT

Title

6/28/01

Title

14/S

RECORDED: 08/13/2001