# Electronic Version v1.1

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SUBMISSION TYPE:		NEW ASSIGNMENT			
NATURE OF CONVEYANCE:		ASSIGNMENT			
CONVEYING PARTY DATA					
N			lame	Execution Date	
Mark W. Coffey				07/12/2007	
Gabriel G. Colburn				07/12/2007	
RECEIVING PARTY DATA					
Name:	Colorado School of Mines				
Street Address:	1500 Illinois Street				
City:	Golden				
State/Country:	COLORADO				
Postal Code:	80401				
PROPERTY NUMBERS Total: 1					
Property Type			Number		205
Application Number: 11777		11777	205		1177205
CORRESPONDENCE DATA					
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Correspondent Name: Valerie H. Brown   Address Line 1: 370 17th Street					
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Address Line 4: Denver, COLORADO 80202					
ATTORNEY DOCKET NUMBER:			187931/US/2		
NAME OF SUBMITTER:			Valerie H. Brown		
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## PATENT REEL: 019738 FRAME: 0778

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#### ASSIGNMENT

WHERBAS, we, Mark W. Coffey, residing at 535 South 44<sup>th</sup> Street, Boulder, Colorado 80305, and Gabriel G. Colburn, residing at 4485 Laredo Meadow Point, #303, Colorado Springs, Colorado 80922 (hereinafter, individually and collectively the "Assignor"), have invented certain new and useful systems, devices, and methods disclosed and described in a utility application for Letters Patent in the United States ("U.S."), titled "METHOD FOR SIGNAL AND IMAGE PROCESSING WITH LATTICE GAS PROCESSES," which can be identified in the United States Patent and Trademark Office by Application No. 11/777,205, filed on July 12, 2007 (the "Utility Application") with Attorney Docket No. 187931/US/2, and Canada Application No. \_\_\_\_\_\_, titled "METHOD FOR SIGNAL AND IMAGE PROCESSES," with Attorney MITH LATTICE GAS PROCESSES, and Canada Application No. \_\_\_\_\_\_, titled "METHOD FOR SIGNAL AND IMAGE PROCESSING WITH LATTICE GAS PROCESSES," with Attorney Docket No. 187931/US/2, and Canada Application No. \_\_\_\_\_\_\_, titled "METHOD FOR SIGNAL AND IMAGE PROCESSING WITH LATTICE GAS PROCESSES," with Attorney Docket No. 187931/US/2, and Canada Application No. \_\_\_\_\_\_\_, titled "METHOD FOR SIGNAL AND IMAGE PROCESSING WITH LATTICE GAS PROCESSES," filed on July \_\_\_\_\_, 2007, with Attorney Docket No. 187931/CA (the "Foreign Applications"); and

WHEREAS, Colorado School of Mines, a public university organized and existing under the laws of the State of Colorado, and having its principal place of business at 1500 Illinois Street, Golden, Colorado 80401 (the "Assignee"), by an earlier Assignment dated September 5, 2006, owns all right, title and interest in and to the U.S. Provisional Application No. 60/807,410, filed July 14, 2006 entitled "APPARATUS AND METHOD FOR SIGNAL AND IMAGE PROCESSING ON A TYPE-II QUANTUM COMPUTER";

WHEREAS, to the extent that Assignor now owns any right, title and interest in the invention described and claimed in the Utility Application and the Foreign Applications not already transferred to Colorado School of Mines by the earlier Assignment, Assignor is desirous of assigning such interest and the Utility Application, and the Foreign Applications, any provisional, non-provisional, continuation, continuation-in-part, divisional, international, foreign, regional and convention applications corresponding thereto, and any and all Letters Patent of the United States and countries and regions foreign thereto which may grant or have granted thereto or be lodged in relation thereto, any reissue or reexamination thereof or to be obtained therefor, any renewals, or substitutes thereof, and any and all priority rights or priority claims, International Convention rights, any and all rights to collect past damages for infringement of any and all Letters Patent of the United States and countries and regions foreign thereto which may be published, which may grant, or have granted thereto or be lodged in relation thereto, and other benefits accruing to or to accrue to Assignor with respect to the filing of applications for patents or securing of patents in the United States and countries foreign thereto (the "Patent Rights"); and

WHEREAS, Assignce desires to acquire any and all, right, title, and interest of Assignor in and to the invention(s), the Patent Rights, and in, to, and under any and all Letters Patent to be obtained therefor;

NOW THEREFORE, for the sum of \$1.00 and other good and valuable consideration to Assignor in hand paid, the receipt and sufficiency of which are hereby acknowledged, Assignor has sold, assigned, and transfer and by these presents does hereby sell, assign and transfer to the said Assignce, and said Assignce's legal representatives, successors and assigns, any and all of the entire right, title and interest in and to the invention(s), Patent Rights, and any and all Letters Patent to be obtained therefor;

UPON SAID CONSIDERATION, the Assignor hereby covenants and agrees with the said Assignee that it will not execute any writing or do any act whatsoever conflicting with these presents, and that it will, at any time upon request, without further or additional consideration, but at the expense of the said Assignee, execute such additional assignments and other writings and do such additional acts as said Assignee may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, provisionals, non-provisionals, continuations, continuations-in-part, continuing prosecutions, divisionals, renewals, reissues, reexamined

PATENT REEL: 019738 FRAME: 0780 or extended Letters Patent of the United States, or of any and all foreign countries, on said Patent Rights, and execute confirmatory assignments or acknowledgments of this assignment as necessary for full enjoyment of the Patent Rights and for recording in foreign patent offices, and in enforcing any rights of choses in action accruing as a result of such Patent Rights, by giving testimony in any proceedings or transactions involving such Patent Rights, and by executing preliminary statements and other affidavits, it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of, the assigns and legal representatives of both parties;

UPON SAID CONSIDERATION, Assignor represents and warrants that Assignor has the right, title, and authority to execute this Assignment and to convey any and all right, title, and interest in the Patent Rights, and that Assignor has not conveyed nor will convey hereafter all or part of the Patent Rights to a third party;

ASSIGNOR HEREBY AUTHORIZES said Assignee, its successors, and assigns, or anyone it may properly designate, to apply for Letters Patent in the U.S. and any and all foreign countries and regions, in its own name if desired, and additionally to claim priority to the filing date of the Utility Application and Foreign Applications and otherwise take advantage of the provisions of any international conventions.

ASSIGNOR HEREBY AUTHORIZES Assignee, its successors and assigns, or anyone it may properly designate, to insert in this instrument the application number, filing date, and title of the Utility Application and Foreign Applications once known.

IN WITNESS WHEREOF, the Assignor hereunto has executed this Assignment upon the date indicated below.

By:

Date:

By: Mark W. Coffey

Date: \_\_\_\_\_, 2007

Gabriel G. Colburn

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PATENT REEL: 019738 FRAME: 0781 or extended Letters Patent of the United States, or of any and all foreign countries, on said Patent Rights, and execute confirmatory assignments or acknowledgments of this assignment as necessary for full enjoyment of the Patent Rights and for recording in foreign patent offices, and in enforcing any rights or choses in action accruing as a result of such Patent Rights, by giving testimony in any proceedings or transactions involving such Patent Rights, and by executing preliminary statements and other affidavits, it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of, the assigns and legal representatives of both parties;

UPON SAID CONSIDERATION, Assignor represents and warrants that Assignor has the right, title, and authority to execute this Assignment and to convey any and all right, title, and interest in the Patent Rights, and that Assignor has not conveyed nor will convey hereafter all or part of the Patent Rights to a third party;

ASSIGNOR HEREBY AUTHORIZES said Assignee, its successors, and assigns, or anyone it may properly designate, to apply for Letters Patent in the U.S. and any and all foreign countries and regions, in its own name if desired, and additionally to claim priority to the filing date of the Utility Application and Foreign Applications and otherwise take advantage of the provisions of any international conventions.

ASSIGNOR HEREBY AUTHORIZES Assignee, its successors and assigns, or anyone it may properly designate, to insert in this instrument the application number, filing date, and title of the Utility Application and Foreign Applications once known.

IN WITNESS WHEREOF, the Assignor hereunto has executed this Assignment upon the date indicated below.

Date: \_\_\_\_\_, 2007

By:\_\_\_\_

Mark W. Coffey

Date: 7-12 2007

Gabriel G. Colburn

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### ACCEPTANCE OF ASSIGNMENT

The Assignee hereby acknowledges and accepts the foregoing assignment of rights by Assignor.

Colorado School of Mines

IN TESTIMONY WHEREOF, the Assignee, by its undersigned officer, confirms its acceptance on the date and in the place set forth below.

Date:  $\frac{7/2.5}{2007}$ , 2007

reflerson

Bv: Poate John Name: Title: Vice President for Research and Technology Transfer

On this 25 day of \_\_\_\_\_\_, 2007, before me a Notary Public in and for said county, personally appeared <u>\_\_\_\_\_\_\_\_</u>, the above-mentioned representative of the Assignee, Colorado School of Mines, who executed the foregoing patent Assignment, and represented and acknowledged that he had the requisite corporate authority to execute and accept this patent Assignment and the same was executed as a free act and deed.

(SEAL)

STATE OF COLORADO

COUNTY OF

Notary Public Jehnuary 17, 2009

My commission expires:

4827-6869-6833/1

### PATENT REEL: 019738 FRAME: 0783

**RECORDED: 08/23/2007**