

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the Assignee's address from Roomm 133S, to Room 133S previously recorded on Reel 018886 Frame 0961. Assignor(s) hereby confirms the assignment of the entire right, title and interest.

CONVEYING PARTY DATA

Name	Execution Date
Daniel Lidar	11/17/2003
Lian-Ao Wu	11/17/2003

RECEIVING PARTY DATA

Name:	The University of Toronto
Street Address:	27 King's College Circle
Internal Address:	Simcoe Hall, Room 133S
City:	Toronto
State/Country:	CANADA
Postal Code:	M5S 1A1

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	10407683

CORRESPONDENCE DATA

Fax Number: (206)682-6031
Correspondence will be sent via US Mail when the fax attempt is unsuccessful.
 Phone: 206-622-4900
 Email: crystall@seedip.com
 Correspondent Name: Frank Abramonte
 Address Line 1: 701 Fifth Avenue
 Address Line 2: Suite 5400
 Address Line 4: Seattle, WASHINGTON 98104

ATTORNEY DOCKET NUMBER:	240105.428
NAME OF SUBMITTER:	Frank Abramonte

CH \$40.00 10407683

Total Attachments: 8

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TO:FRANK ABRAMONTE COMPANY:701 FIFTH AVENUE

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

02/13/2007
500223035

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Daniel Lidar	11/17/2003
Lian-Ao Wu	11/17/2003
RECEIVING PARTY DATA	
Name:	The University of Toronto
Street Address:	27 King's College Circle
Internal Address:	Simcoe Hall, Roomm 133-S
City:	Toronto
State/Country:	CANADA
Postal Code:	M5S 1A1
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	10407683
CORRESPONDENCE DATA	
Fax Number:	(206)682-6031
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
Phone:	206-622-4900
Email:	crystall@seedip.com
Correspondent Name:	Frank Abramonte
Address Line 1:	701 Fifth Avenue
Address Line 2:	Suite 5400
Address Line 4:	Seattle, WASHINGTON 98104
ATTORNEY DOCKET NUMBER:	240105.428
NAME OF SUBMITTER:	Frank Abramonte
Total Attachments: 4 source=Assignment#page1.tif	

CH \$40.00 10407683

TO:FRANK ABRAMONTE COMPANY:701 FIFTH AVENUE

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JAN 11 2007



University of Toronto

OFFICE OF THE VICE-PRESIDENT, RESEARCH AND ASSOCIATE PROVOST

ASSIGNMENT OF RIGHTS TO THE UNIVERSITY OF TORONTO BY THE INVENTOR

In consideration of the terms and mutual covenants hereinafter contained and other good and valuable consideration in the sum of Two Dollars (\$2.00) of lawful money of Canada paid by each of the parties to the other, the receipt and sufficiency of which are hereby acknowledged **Daniel Lidar and Lian-Ao Wu**, their heirs, executors, administrators and assigns (collectively the "Assignor") and **The Governing Council of the University of Toronto**, its successors and assigns (collectively the "Assignee") covenant and agree as follows:

Background:

The Inventions, as defined below, are governed by the terms of the July 19, 2001 Research Agreement, Supplements dated July 27, 2001 and February 24, 2003 and Amendment dated September 23, 2004 (the "Research Agreement") with D-Wave Systems Inc. ("D-Wave") attached hereto as Appendix A.

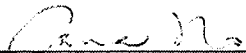
1. As used in this Assignment, "Net Revenues" shall mean payments received by the Assignee under Section 12(d)(i) of the Research Agreement and/or royalty, licensing and other revenue received by the Assignee other than from D-Wave, from all rights held by the Assignee in the invention entitled "**Encoding and Error Suppression for Superconducting Quantum Computers**" ("Invention 1"), "**Methods of Qubit Gate and Teleportation**" ("Invention 2"), and "**Dressed Qubit**" ("Invention 3") (collectively the "Inventions") as described respectively in Appendices B, C and D attached hereto, less legal and other fees that the Assignee incurs directly in the process of establishing and maintaining the legal protection of those rights.
2. The Assignor hereby assigns to the Assignee all right, title and interest, whatever the same may be (but without any representation or warranty as to the nature, extent or validity thereof) which the Assignor now has or may in the future have in the Invention including without limitation the right to apply for patents in Canada, the United States of America and any other country, the right to receive any letters patent that may be issued from any such applications and the right to sell, license or assign the Invention or the rights thereto.
3. Nothing herein shall alter the Assignor's rights to share options granted to them under the Research Agreement.
4. In consideration of the rights granted the Assignee pursuant to this Assignment, the Assignor hereby acknowledges the receipt and sufficiency of due consideration received through the Research Agreement in the form of certain options to purchase shares in D-Wave. Additionally, the Assignee agrees to pay the Assignor 25% of Net Revenues.

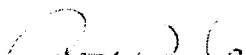
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5. Any money to be paid by the Assignee pursuant to this Assignment shall be paid to the Assignor annually on or before the thirtieth day following the anniversary of the execution of this Assignment accompanied by a statement of the Net Revenues received by the Assignee during the previous twelve months.
6. The Assignor agrees to make full and complete disclosure of the Invention to the Assignee, and shall make available to the Assignee any physical embodiments of the Inventions and other data that will be or that may be useful to the Assignee in exercising its rights in the Invention.
7. The Assignor agrees to execute, acknowledge and deliver all such further assurances and to do all such acts as may be necessary to carry out the intent and purpose of this Agreement, including without limitation, to execute powers of attorney and other documents required to maintain intellectual property protection of the Invention, and to review and provide comments with respect to such intellectual property protection when requested by the Assignee.
8. The Assignee agrees to indemnify and save the Assignor harmless from and against any loss arising out of or pursuant to any claims or demands in connection with the Invention and all costs, damages and expenses (including reasonable legal fees) incurred by the Assignor in connection therewith, except to the extent caused by the Assignor's breach of any of the Assignor's obligations herein or of any representations or warranties given by the Assignor in the Disclosure.
9. Save and except for the right to enforce the terms contained in this Assignment, the Assignor releases the Assignee from any and all claims that the Assignor may now have or may in future have in respect of the Invention.

This Agreement is made effective the 17th November, 2003.

Witness






Inventor(s)

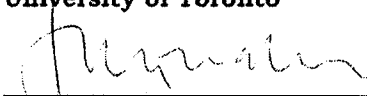


 Daniel Lidar




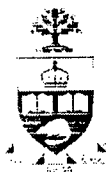
 Lian-Ao Wu

**The Governing Council of the
 University of Toronto**



 John R.G. Challis, F.R.S.C.
 Vice-President, Research and Associate Provost


 _____/s
 Louis R. Charpentier
 Secretary



**UNIVERSITY OF TORONTO INVENTIONS POLICY
CONFIDENTIAL INTELLECTUAL PROPERTY DISCLOSURE**

Office of the Vice-President - Research and International Relations

27 King's College Circle, Room 133-S

Tel: (416) 978-7833

Fax: (416) 978-5821

email: monique.mcnaughton@utoronto.ca

1. Title:

Encoding and Error Suppression for Superconducting Quantum Computers

2. a) University of Toronto Inventors/Major Contributors:

SURNAME, GIVEN NAMES	UNIVERSITY PERSONNEL NO.	DEPARTMENT (LIST ANY CROSS APPOINTMENTS OR AFFILIATED INSTITUTIONS)	AFFILIATION WITH UNIVERSITY (i.e. faculty, res. assoc., post-doc, student, staff, visitor, etc.)	CURRENT ADDRESS, PHONE, FAX, EMAIL
Daniel Lidar	1010284	Chemistry	Faculty	Phone:416-946-7488 Fax: 416-946-7705 dlidar@chem.utoronto.ca
Lian-Ao Wu	1013052	Chemistry	Post-doc	Phone:416-946-0152 Fax: 416-978-5325 lwu@chem.utoronto.ca

2. b) External Inventors/Major Contributors:

(Please provide names and affiliations of non-University of Toronto individuals who have made a creative contribution to this Intellectual Property, i.e. sponsor employees, academic collaborators, etc.)

Alexandre Blais, University of Sherbrooke

3. Description:

(Please highlight the novelty or patentable aspects of this Intellectual Property; attach a separate sheet if necessary)

See U.S. Patent Application #60/370,087 entitled **Encoding and Error Suppression for Superconducting Quantum Computers**, filed April 4, 2002 by Pennie & Edmonds LLP (docket number 11090-050-888).

DATE RECEIVED: <u>10/17/03</u>	DISCLOSURE REFERENCE NO.: <u>10001695</u>
(For Research Services use only)	

4. How was the work leading to this Intellectual Property funded? i.e. salaries, equipment used, supplies etc.

SPONSOR	GRANT OR CONTRACT FUND #	INTELLECTUAL PROPERTY TERMS & CONDITIONS
D-Wave Systems Inc.	450682	See Research Agreement

5. Where did the work leading to this Intellectual Property take place?

University of Toronto Department of Chemistry
University of Sherbrooke

6. Is this Intellectual Property subject to any software licence, material transfer, confidentiality, non-disclosure, collaboration or other agreement, written or oral, not referenced in Section 4?

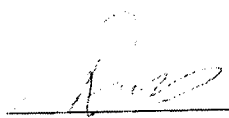
NO YES (If "Yes", please provide details)

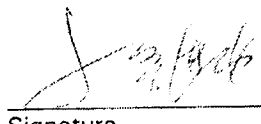
7. What are the potential applications and/or sources of revenue from this Intellectual Property?

This work offers technical simplifications in the design and construction of solid-state quantum computers, in particular those using superconducting Josephson junction qubits, and electrons-spins in quantum dots.

8. Warranty:

I/We, the Inventors/Contributors listed in Section 2(a), have read, understood and agree to all of the preceding and declare that all of the information provided in this disclosure is complete and correct. To the best of our knowledge, all persons who might legally make an ownership claim in this Intellectual Property are identified in Section 2(a) and 2(b).


 Signature _____ Date 14/11/03
 Typed Name: Daniel Lidar


 Signature _____ Date 10/11/03
 Typed Name: Lian-Ao Wu

Signature _____ Date _____
 Typed Name: _____

Signature _____ Date _____
 Typed Name: _____

For more information on University of Toronto intellectual property policies, please call 416-978-7833 or access <http://www.library.utoronto.ca/techtran/>.
 For information on commercialization processes and procedures please call the Innovations Foundation at 416-978-5117.