

TRADEMARK ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:	SECURITY INTEREST		
CONVEYING PARTY DATA			
Name	Formerly	Execution Date	Entity Type
Joule Biotechnologies, Inc.		12/24/2008	CORPORATION: DELAWARE
RECEIVING PARTY DATA			
Name:	Silicon Valley Bank		
Street Address:	3003 Tasman Drive		
City:	Santa Clara		
State/Country:	CALIFORNIA		
Postal Code:	95054		
Entity Type:	Bank: CALIFORNIA		
PROPERTY NUMBERS Total: 2			
Property Type	Number	Word Mark	
Serial Number:	77466760	JOULE BIOTECHNOLOGIES	
Serial Number:	77343584	JOULE BIOTECHNOLOGIES	
CORRESPONDENCE DATA			
Fax Number:	(703)415-1557		
	<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>		
Phone:	703-415-1555		
Email:	mail@specializedpatent.com		
Correspondent Name:	Christopher E. Kondracki		
Address Line 1:	2001 Jefferson Davis, Hwy., Suite 1007		
Address Line 4:	Arlington, VIRGINIA 22202		
ATTORNEY DOCKET NUMBER:	9100805		
NAME OF SUBMITTER:	Christopher E. Kondracki		
Signature:	/Christopher E. Kondracki/		
Date:	03/02/2009		

CH \$65.00 77466760

Total Attachments: 9

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INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement is entered into as of December 24, 2008, by and between SILICON VALLEY BANK ("Bank") and JOULE BIOTECHNOLOGIES, INC. ("Grantor").

RECITALS

A. Bank has agreed to make certain advances of money and to extend certain financial accommodations to Grantor (the "Loans") in the amounts and manner set forth in that certain Loan and Security Agreement between Grantor and Bank dated of even date herewith (as the same may be amended, modified or supplemented from time to time, the "Loan Agreement"; capitalized terms used herein are used as defined in the Loan Agreement). Bank is willing to make the Loans to Grantor, but only upon the condition, among others, that Grantor shall grant to Bank a security interest in Grantor's right, title and interest on, to and under certain Copyrights, Trademarks, Patents, and Mask Works (as each term is described below) to secure the obligations of Grantor under the Loan Agreement.

B. Pursuant to the terms of the Loan Agreement, Grantor has granted to Bank a security interest in all of Grantor's right, title and interest, whether presently existing or hereafter acquired, in, to and under all of the Collateral.

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, and intending to be legally bound, as collateral security for the prompt and complete payment when due of its obligations under the Loan Agreement, Grantor hereby represents, warrants, covenants and agrees with Bank as follows:

AGREEMENT

To secure its obligations under the Loan Agreement, Grantor grants and pledges to Bank a security interest in all of Grantor's right, title and interest in, to and under its intellectual property (all of which shall collectively be called the "Intellectual Property Collateral"), including, without limitation, the following:

(a) Any and all copyright rights, copyright applications, copyright registrations and like protections in each work or authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret, now or hereafter existing, created, acquired or held, including without limitation those set forth on Exhibit A attached hereto (collectively, the "Copyrights");

(b) Any and all trade secrets, and any and all intellectual property rights in computer software and computer software products now or hereafter existing, created, acquired or held;

(c) Any and all design rights that may be available to Grantor now or hereafter existing, created, acquired or held;

(d) All patents, patent applications and like protections including, without limitation, improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same, including without limitation the patents and patent applications set forth on Exhibit B attached hereto (collectively, the "Patents");

(e) Any trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of Grantor

connected with and symbolized by such trademarks, including without limitation those set forth on Exhibit C attached hereto (collectively, the "Trademarks");

(f) All mask works or similar rights available for the protection of semiconductor chips, now owned or hereafter acquired, including, without limitation those set forth on Exhibit D attached hereto (collectively, the "Mask Works");

(g) Any and all claims for damages by way of past, present and future infringements of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above;

(h) All licenses or other rights to use any of the Copyrights, Patents, Trademarks, or Mask Works and all license fees and royalties arising from such use to the extent permitted by such license or rights;

(i) All amendments, extensions, renewals and extensions of any of the Copyrights, Trademarks, Patents, or Mask Works; and

(j) All proceeds and products of the foregoing, including without limitation all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

This security interest is granted in conjunction with the security interest granted to Bank under the Loan Agreement. The rights and remedies of Bank with respect to the security interest granted hereby are in addition to those set forth in the Loan Agreement and the other Loan Documents, and those which are now or hereafter available to Bank as a matter of law or equity. Each right, power and remedy of Bank provided for herein or in the Loan Agreement or any of the Loan Documents, or now or hereafter existing at law or in equity shall be cumulative and concurrent and shall be in addition to every right, power or remedy provided for herein and the exercise by Bank of any one or more of the rights, powers or remedies provided for in this Intellectual Property Security Agreement, the Loan Agreement or any of the other Loan Documents, or now or hereafter existing at law or in equity, shall not preclude the simultaneous or later exercise by any person, including Bank, of any or all other rights, powers or remedies.

[Signature page follows.]

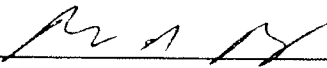
IN WITNESS WHEREOF, the parties have caused this Intellectual Property Security Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTOR:

Address of Grantor:

JOULE BIOTECHNOLOGIES, INC.

83 Rogers St.
Cambridge, MA 02142

By: 
Title: President and CEO

Attn: Chief Executive Officer

BANK:

Address of Bank:

SILICON VALLEY BANK

One Newton Executive Park, Suite 200
2221 Washington Street
Newton, Massachusetts 02462

By: _____

Title: _____

Attn: Mr. David Rodriguez

IN WITNESS WHEREOF, the parties have caused this Intellectual Property Security Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTOR:

JOULE BIOTECHNOLOGIES, INC.

Address of Grantor:

Attn: _____

By: _____

Title: _____

BANK:

SILICON VALLEY BANK

Address of Bank:

One Newton Executive Park, Suite 200
2221 Washington Street
Newton, Massachusetts 02462

Attn: Mr. David Rodriguez

By: *David Rodriguez*

Title: VP

TRADEMARK

REEL: 003944 FRAME: 0953

EXHIBIT A

Copyrights

Description

Registration/
Application
Number

Registration/
Application
Date

None.

EXHIBIT B

Patents

Patent Applications:

Docket Number	Serial Number	Filing Date	Description
JBT-116		12/11/2008	Photobioreactor
JBT-241	61/139,511	12/19/2008	Optimized Sequences

JBT-100	12/208,300	9/10/2008	Engineered Light-Harvesting Organisms
JBT-100	PCT US2008/075899	9/10/2008	Engineered Light-Harvesting Organisms
JBT-101	12/268,406	11/10/2008	Hyperphotosynthetic Organisms
JBT-101	PCT US2008/083056	11/10/2008	Hyperphotosynthetic Organisms
JBT-103.1	61/090,933	8/22/2008	Hyperphotosynthetic Organisms
JBT-113	61/130,734	6/2/2008	Photobioreactor
JBT-114	61/130,735	6/2/2008	Photobioreactor
JBT-115	61/058,182	6/2/2008	Photobioreactor
JBT-120	61/033,397	3/3/2008	Production of Compounds
JBT-121	61/033,398	3/3/2008	Production of Compounds
JBT-121.1	61/121,532	12/10/2008	Production of Compounds
JBT-122	61/033,399	3/3/2008	Production of Compounds
JBT-123	61/033,401	3/3/2008	Production of Compounds
JBT-124	61/033,404	3/3/2008	Production of Compounds
JBT-125	61/033,407	3/3/2008	Production of Compounds
JBT-126	61/033,416	3/3/2008	Production of Compounds
JBT-127	61/033,411	3/3/2008	Production of Compounds
JBT-128	61/033,412	3/3/2008	Production of Compounds
JBT-128.1	61/044,419	4/11/2008	Production of Compounds
JBT-129	61/033,402	3/3/2008	Business Methods
JBT-130	61/056,999	5/29/2008	Sugar Production
JBT-131	61/058,182	6/2/2008	Photobioreactor
JBT-132	61/077,698	7/2/2008	Sugar Production
JBT-200	61/076,083	6/26/2008	Optimized Sequences & Use
JBT-201	61/076,096	6/26/2008	Optimized Sequences & Use
JBT-202	61/079,656	7/10/2008	Optimized Sequences & Use
JBT-203	61/079,665	7/10/2008	Optimized Sequences & Use
JBT-204	61/079,667	7/10/2008	Optimized Sequences & Use
JBT-205	61/079,673	7/10/2008	Optimized Sequences & Use
JBT-206	61/079,676	7/10/2008	Optimized Sequences & Use
JBT-207	61/079,679	7/10/2008	Optimized Sequences & Use
JBT-208	61/079,683	7/10/2008	Optimized Sequences & Use
JBT-209	61/079,687	7/10/2008	Optimized Sequences & Use
JBT-210	61/079,688	7/10/2008	Optimized Sequences & Use
JBT-211	61/079,692	7/10/2008	Optimized Sequences & Use
JBT-212	61/079,697	7/10/2008	Optimized Sequences & Use
JBT-213	61/079,699	7/10/2008	Optimized Sequences & Use
JBT-214	61/079,707	7/10/2008	Optimized Sequences & Use
JBT-215	61/086,283	8/5/2008	Optimized Sequences & Use
JBT-216	61/086,285	8/5/2008	Optimized Sequences & Use
JBT-217	61/086,288	8/5/2008	Optimized Sequences & Use

JBT-218	61/086,291	8/5/2008	Optimized Sequences & Use
JBT-219	61/086,296	8/5/2008	Optimized Sequences & Use
JBT-220	61/086,300	8/5/2008	Optimized Sequences & Use
JBT-221	61/086,407	8/5/2008	Optimized Sequences & Use
JBT-222	61/086,410	8/5/2008	Optimized Sequences & Use
JBT-223	61/086,412	8/5/2008	Optimized Sequences & Use
JBT-224	61/086,414	8/5/2008	Optimized Sequences & Use
JBT-225	61/086,417	8/5/2008	Optimized Sequences & Use
JBT-226	61/086,418	8/5/2008	Optimized Sequences & Use
JBT-227	61/100,656	9/26/2008	Optimized Sequences & Use
JBT-228	61/100,660	9/26/2008	Optimized Sequences & Use
JBT-229	61/100,663	9/26/2008	Optimized Sequences & Use
JBT-230	61/100,665	9/26/2008	Optimized Sequences & Use
JBT-231	61/100,667	9/26/2008	Optimized Sequences & Use
JBT-233	61/109,878	10/30/2008	Optimized Sequences & Use
JBT-234	61/109,866	10/30/2008	Optimized Sequences & Use
JBT-235	61/109,874	10/30/2008	Optimized Sequences & Use
JBT-236	61/117,925	11/25/2008	Optimized Sequences & Use
JBT-237	61/117,928	11/25/2008	Optimized Sequences & Use
JBT-238	61/117,930	11/25/2008	Optimized Sequences & Use
JBT-239	61/121,087	12/9/2008	Optimized Sequences & Use
JBT-240	61/121,091	12/9/2008	Optimized Sequences & Use

EXHIBIT C

Trademarks

<u>Description</u>	<u>Registration/ Application Number</u>	<u>Registration/ Application Date</u>
JOULE BIOTECHNOLOGIES (and Design) The Mark consists of partial yellow sun with green highlights and green word "Joule".	77-466760	May 6, 2008
JOULE BIOTECHNOLOGIES (Block letters)	77-343584	December 4, 2007

EXHIBIT D

Mask Works

Description

Registration/
Application
Number

Registration/
Application
Date

None.