

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	MERGER
EFFECTIVE DATE:	10/02/2006

CONVEYING PARTY DATA

Name	Execution Date
HEADWATERS NANOKINETIX INC	12/12/2006

RECEIVING PARTY DATA

Name:	HEADWATERS TECHNOLOGIES INNOVATION LLC
Street Address:	1501 NEW YORK AVENUE
City:	LAWRENCEVILLE
State/Country:	NEW JERSEY
Postal Code:	08648

PROPERTY NUMBERS Total: 33

Property Type	Number
Application Number:	10990616
Application Number:	11054196
Application Number:	11101209
Application Number:	11103676
Application Number:	11104324
Application Number:	11106831
Application Number:	11126963
Application Number:	11216407
Application Number:	11216442
Application Number:	11228568
Application Number:	11264918
Application Number:	11333559
Application Number:	11435165
Application Number:	11435580

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PATENT

Application Number:	11537462
Application Number:	11538339
Patent Number:	5851948
Patent Number:	6168775
Patent Number:	6500968
Patent Number:	6500969
Patent Number:	6534661
Patent Number:	6576214
Patent Number:	6740615
Patent Number:	6746597
Patent Number:	6875409
Patent Number:	6908873
Patent Number:	6919065
Patent Number:	7011807
Patent Number:	7045479
Patent Number:	7045481
Patent Number:	7067103
Patent Number:	7105143
Patent Number:	7144565

CORRESPONDENCE DATA

Fax Number: (801)328-1707
Correspondence will be sent via US Mail when the fax attempt is unsuccessful.
Phone: (801)533-9800
Email: dfrederick@wnlaw.com
Correspondent Name: JOHN M GUYNN/WORKMAN NYDEGGER
Address Line 1: 60 EAST SOUTH TEMPLE
Address Line 2: 1000 EAGLE GATE TOWER
Address Line 4: SALT LAKE CITY, UTAH 84111

ATTORNEY DOCKET NUMBER:	15913.0
NAME OF SUBMITTER:	JOHN M GUYNN

Total Attachments: 32
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RECEIVED

OCT 26 2006

ARTICLES OF MERGER

Utah Div. Of Corp. & Comm. Code

OF

HEADWATERS NANOKINETIX, INC.
(a Utah corporation)

WITH AND INTO

HEADWATERS TECHNOLOGY INNOVATION GROUP, INC.
(a Utah corporation)

Pursuant to the provisions of Section 16-10a-1105 of the Utah Revised Business Corporation Act, as amended (the "Act"), the undersigned, Headwaters NanoKinetix, Inc., a Utah corporation (the "Merging Entity"), and Headwaters Technology Innovation Group, Inc., Utah corporation (the "Surviving Entity"), certify the following articles of merger adopted for the purpose of effecting a merger in accordance with the provisions of Part Eleven of the Act and hereby execute the following Articles of Merger:

ARTICLE ONE – NAMES

The name of the Merging Entity is Headwaters NanoKinetix, Inc., a Utah corporation. The name of the Surviving Entity is Headwaters Technology Innovation Group, Inc., a Utah corporation. The Merging Entity and the Surviving Entity are hereafter collectively referred to as the "Merging Entities".

ARTICLE TWO – PLAN OF MERGER

Attached hereto as Exhibit A is a copy of the Plan of Merger by and between the Merging Entities, dated October 2, 2006, adopted in the manner prescribed by the laws of the State of Utah. The Merging Entities expect and intend that the Merger will qualify as a reorganization under Section 368(a) of the Internal Revenue Code of 1986, as amended.

ARTICLE THREE – PLACE OF BUSINESS

The Surviving Entity shall continue to be governed by the laws of the State of Utah. The principal place of business for the Surviving Entity as the surviving corporation shall be 10653 South River Front Parkway, Suite 300, South Jordan, Utah 84095.

10-26-06P03:06 RCVD

PATENT

REEL: 018645 FRAME: 0834

ARTICLE FOUR – ARTICLES OF INCORPORATION

There are no amendments to the Articles of Incorporation of the Surviving Entity, which shall be the Articles of Incorporation of the Surviving Entity as the surviving corporation.

ARTICLE FIVE – SHAREHOLDER VOTE

The authorized capitalized stock of the Merging Entity at the time of adoption of the Plan of Merger was 100 shares of common stock, with 100 shares of common stock outstanding. The number of votes entitled to be cast was 100. Pursuant to an Action by Written Consent of the Shareholder dated October 2, 2006, approving the merger, the number of votes cast in favor of the Plan were 100. No shares voted against the Plan of Merger.

The authorized capitalized stock of the Surviving Entity at the time of adoption of the Plan of Merger was 100 shares of common stock, with 100 shares of common stock outstanding. The number of votes entitled to be cast was 100. Pursuant to an Action by Written Consent of the Shareholder dated October 2, 2006, approving the merger, the number of votes cast in favor of the Plan were 100. No shares voted against the Plan of Merger.

ARTICLE SIX – EFFECTIVE DATE

The merger will become effective upon the filing of these Articles of Merger with the Utah Division of Corporations and Commercial Code.

ARTICLE SEVEN – COMPLIANCE WITH LAWS

The Merging Entities have complied with all provisions of the laws of the State of Utah, which is the jurisdiction in which the Merging Entities were organized and which is applicable to the proposed merger.

EXHIBIT A

Plan of Merger

See Attached

PLAN OF MERGER

BETWEEN

HEADWATERS NANOKINETIX, INC.
(a Utah Corporation)

WITH AND INTO

HEADWATERS TECHNOLOGY INNOVATION GROUP, INC.
(a Utah Corporation)

This Plan of Merger (the "Plan of Merger") is made and entered into as of the 2nd day of October, 2006, by and between Headwaters NanoKinetix, Inc., a Utah corporation (hereafter the "Merging Entity"), and Headwaters Technology Innovation Group, Inc., a Utah corporation (hereafter the "Surviving Entity"). The Merging Entity and the Surviving Entity are hereafter collectively referred to as the "Merging Corporations".

RECITALS:

1. The Merging Entity is a Utah corporation with its principal place of business located in South Jordan, Utah.
2. The Surviving Entity is a Utah corporation with its principal place of business located in South Jordan, Utah.
3. The board of directors of each of the Merging Corporations deems it advisable that the Merging Entity be merged with and into the Surviving Entity upon the terms and subject to the conditions hereinafter set forth, in accordance with the applicable provisions of the laws of the State of Utah, which permits such merger, to among other things, facilitate the consolidation of the group of companies that Merging Entity and Surviving Entity are a part of.
4. The Merging Corporations expect and intend that the Merger will qualify as a reorganization under Section 368(a) of the Internal Revenue Code, as amended.

AGREEMENT:

In consideration of the foregoing recitals and of the agreements, covenants and provisions hereinafter contained, Merging Entity and the Surviving Entity, by their respective boards of directors, have agreed and do hereby agree, each with the other as follows:

ARTICLE I
MERGER

The Merging Entity shall be merged with and into Surviving Entity and both entities shall become a single corporation in accordance with the applicable provisions of the laws of the State of Utah, with the Surviving Entity being the surviving corporation (the "Merger").

ARTICLE II
EFFECT OF MERGER

Upon the Merger becoming effective (the "Effective Time") as provided under the applicable laws of the State of Utah and as set forth in the Articles of Merger filed with the Utah Division of Corporations and Commercial Code:

2.1 The Merging Entity and the Surviving Entity shall be a single corporation with the Surviving Entity as the surviving corporation and the separate existence of the Merging Entity shall cease, except to the extent provided by the laws of the States of Utah in the case of a corporation after its merger into another corporation.

2.2 The Surviving Entity shall thereupon and thereafter possess all the rights, privileges, immunities and franchises, of both a public and a private nature, of each of the Merging Corporations; and all property, real, personal and mixed, and all debts due on whatever account, including subscriptions to shares, and all other choses in action, and all and every other interest of, or belonging to, or due to each of the Merging Corporations, shall be taken and deemed to be vested in the Surviving Entity as the surviving corporation without further act or deed; and the title to all real estate, or any interest therein, vested in either of the Merging Corporations shall not revert or be in any way impaired by reason of the Merger.

2.3 The Surviving Entity shall thenceforth be responsible and liable for all of the liabilities and obligations of each of the Merging Corporations, including, without limitation, any and all fees and franchises taxes; and any claim existing or action or proceeding pending by or against either of the Merging Corporations may be prosecuted to judgment as if the Merger had not taken place, or the Surviving Entity may be substituted in its place, and neither the rights of creditors nor any liens upon the property of either of the Merging Corporations shall be impaired by the Merger.

2.4 The aggregate amount of the net assets of the Merging Corporations which was available for the payment of dividends immediately prior to the Merger, to the extent that the value thereof is not transferred to stated capital by the issuance of shares or otherwise, shall continue to be available for the payment of dividends by the Surviving Entity.

2.5 The Bylaws of the Surviving Entity as existing and constituted immediately prior to the Effective Time shall continue in full force and effect as the Bylaws of the Surviving Entity as the surviving corporation.

2.6 The board of directors, and the members thereof, and the officers of the Surviving Entity immediately prior to the Effective Time shall be and constitute the board of directors, and the members thereof, and the officers of the surviving corporation.

ARTICLE III CONVERSION OF SHARES

The manner and basis of converting the shares of the Merging Corporations shall be as follows:

3.1 Upon consummation of the Merger, each issued and outstanding share of the Merging Entity stock shall be automatically cancelled and shall cease to exist and no consideration shall be paid or delivered in exchange therefore.

3.2 Upon consummation of the Merger, each share of common stock of the Surviving Entity, which is outstanding immediately prior to the Merger shall remain outstanding.

ARTICLE IV ARTICLES OF INCORPORATION

There are no amendments to the Articles of Incorporation of the Surviving Entity, which shall be the Articles of Incorporation of the Surviving Entity as the surviving corporation until further amended in the manner provided by law.

ARTICLE V SUBSEQUENT ACTIONS

If, at any time after the Effective Time, the Surviving Entity shall consider or be advised that any deeds, bills of sale, assignments, assurances, or any other actions or things are necessary or desirable to vest, perfect or confirm of record or otherwise in the Surviving Entity its right, title or interest in, to or under any of the rights, properties or assets of the Merging Entity acquired or to be acquired by the Surviving Entity as a result of, or in connection with, the Merger or otherwise to carry out this Plan of Merger, the officers and directors of the Surviving Entity shall

be authorized to execute and deliver, in the name and on behalf of the Merging Entity or otherwise, all such deeds, bills of sale, assignments and assurances, and to make and do, in the name and on behalf of the Merging Entity or otherwise, all such other actions and things as may be necessary or desirable to vest, perfect or confirm any right, title and interest in, to and under such rights, properties or assets in the Surviving Entity or otherwise to carry out this Plan of Merger.

ARTICLE VI
SHAREHOLDER VOTE

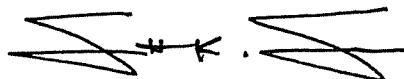
The authorized capitalized stock of the Merging Entity at the time of adoption of the Plan of Merger was 100 shares of common stock, with 100 shares of common stock outstanding. The number of votes entitled to be cast was 100. Pursuant to an Action by Written Consent of the Shareholder dated October 19, 2006, approving the merger, the number of votes cast in favor of the Plan were 100. No shares voted against the Plan of Merger.

The authorized capitalized stock of the Surviving Entity at the time of adoption of the Plan of Merger was 100 shares of common stock, with 100 shares of common stock outstanding. The number of votes entitled to be cast was 100. Pursuant to an Action by Written Consent of the Shareholder dated October 19, 2006, approving the merger, the number of votes cast in favor of the Plan were 100. No shares voted against the Plan of Merger.

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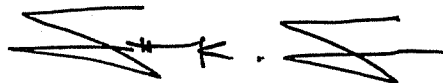
IN WITNESS WHEREOF, the Merging Entity and the Surviving Entity, pursuant to the approval and authority duly given by resolutions adopted by their respective boards of directors, have each caused this Plan of Merger to be executed this 2nd day of October, 2006.

HEADWATERS NANOKINETIX, INC.



By: Scott K. Sorensen
Its: Chief Financial Officer

HEADWATERS TECHNOLOGY INNOVATION
GROUP, INC.

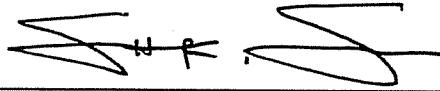


By: Scott K. Sorensen
Its: Chief Financial Officer

893784

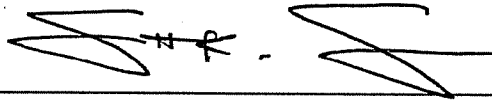
IN WITNESS WHEREOF the undersigned, being thereunto duly authorized, have executed these Articles of Merger on behalf of the Merging Entities as of this 2nd day of October, 2006.

HEADWATERS NANOKINETIX, INC.



By: Scott K. Sorensen
Its: Chief Financial Officer

HEADWATERS TECHNOLOGY INNOVATION
GROUP, INC.



By: Scott K. Sorensen
Its: Chief Financial Officer

893782

**JOINT ACTION BY WRITTEN CONSENT
OF THE BOARD OF DIRECTORS AND SHAREHOLDER OF
HEADWATERS NANOKINETIX, INC.**

The undersigned constituting the sole member of the Board of Directors and the sole Shareholder of Headwaters NanoKinetix, Inc., a Utah corporation (the "Company"), hereby adopt the following resolutions by written consent in accordance with Sections 16-10a-704 and 16-10a-821 of the Utah Revised Business Corporation Act, as amended (the "Act"):

Merger of the Company into Headwaters Technology Innovation Group, Inc.

RESOLVED: That the Director of the Company hereby deems it advisable and in the best interests of the Company and its shareholder that the Company be merged with and into Headwaters Technology Innovation Group, Inc. (the "Surviving Entity") in accordance with the terms and conditions of the Plan of Merger between the Company and the Surviving Entity (the "Merger"), a copy of which has been made available to the Director (the "Merger Agreement") to among other things, facilitate the consolidation of the group of companies that the Company and the Surviving Entity are a part of;

RESOLVED FURTHER: That the Director of the Company hereby recommends that the shareholder of the Company approve the Merger;

RESOLVED FURTHER: That the sole Shareholder of the Company does hereby approve the Merger in accordance with the terms and conditions of the Merger Agreement;

RESOLVED FURTHER: That the Director and the sole Shareholder of the Company hereby approve all instruments, documents and agreements relating to the transactions described in the Merger Agreement;

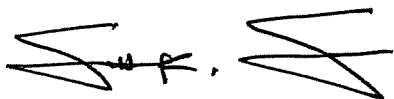
RESOLVED FURTHER: That the officers of the Company are hereby authorized and directed in consultation with legal counsel and other advisors to revise the terms and conditions of and execute and deliver the Merger Agreement, Articles of Merger, and all other instruments, certificates, agreements and documents related thereto or referred to therein or in these resolutions, or, in the judgment of any such persons or the Company's legal counsel, necessary in order to consummate the transactions contemplated in the Merger Agreement and that the actions prior to the date hereof of each of such persons in connection with the Merger Agreement and the transactions contemplated therein, including, the establishing of terms and conditions, the delivery of information and documents and the execution and delivery of agreements, are hereby ratified, confirmed and approved by the Director and the sole Shareholder of the Company;

RESOLVED FURTHER: That the Director and the sole Shareholder of the Company hereby approve, accept, and ratify all past acts by the officers related to any transactions described in the foregoing resolutions.

IN WITNESS WHEREOF, the undersigned have executed this Action by Written Consent as of October 2, 2006.

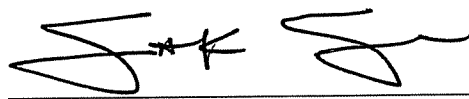
SHAREHOLDER:

HEADWATERS TECHNOLOGY
INNOVATION GROUP, INC.



By: Scott K. Sorensen
Its: Chief Financial Officer

DIRECTOR:



Scott K. Sorensen

893785

**JOINT ACTION BY WRITTEN CONSENT
OF THE BOARD OF DIRECTORS AND SHAREHOLDER OF
HEADWATERS TECHNOLOGY INNOVATION GROUP, INC.**

The undersigned constituting the sole member of the Board of Directors and the sole Shareholder of Headwaters Technology Innovation Group, Inc., a Utah corporation (the "Company"), hereby adopt the following resolutions by written consent in accordance with Sections 16-10a-704 and -821 of the Utah Revised Business Corporation Act, as amended (the "Act"):

Conversion of the Company into a Utah Limited Liability Company

RESOLVED: That the Board of Directors of the Company hereby deems it advisable and in the best interests of the Company and its shareholder to convert the Company from a Utah corporation into a Utah limited liability company under the name of "Headwaters Technology Innovation, LLC" (hereafter the "Subsidiary") and does hereby approve such conversion and recommends to the sole shareholder that it approve the conversion.

FURTHER RESOLVED: That the sole shareholder of the Company hereby approves and adopts the conversion of the Company from a Utah corporation into a Utah limited liability company.

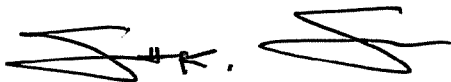
FURTHER RESOLVED: That the officers of the Company be, and each hereby is, authorized and directed to execute Articles of Conversion and Articles of Organization on behalf of the Company and cause the same to be filed with the Utah Department of Commerce, Division of Corporations and Commercial Code and to execute the Operating Agreement and cause the same to be filed in the Company's records.

FURTHER RESOLVED: That the Board of Directors and sole shareholder hereby approve all instruments, documents, articles and agreements relating to the conversion of the Company to a Utah limited liability company, including, without limitation, the Articles of Conversion, Articles of Organization and Operating Agreement made available to the Board of Directors and sole shareholder.

IN WITNESS WHEREOF, the undersigned have executed this Action by Written Consent effective as of October 19, 2006.

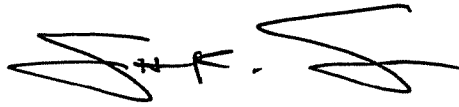
SHAREHOLDER:

HEADWATERS INCORPORATED



By: Scott K. Sorensen
Its: Chief Financial Officer

DIRECTOR:



Scott K. Sorensen

893793

ASSIGNMENT

HEADWATERS NANOKINETIX, INC., a Utah corporation having a principal place of business at 1501 New York Avenue, Lawrenceville, New Jersey 08648, is the assignee of record at the United States Patent and Trademark Office of the entire right, title and interest in and to the following United States patents and patent applications and the inventions described therein (hereafter "Subject Patents and Applications"):

5,851,948	6,875,409	7,144,565	11/126,963	11/333,559	11/457,548
6,168,775	6,908,873	10/990,616	11/216,407	11/351,620	11/461,608
6,500,968	6,919,065	11/054,196	11/216,442	11/351,661	11/461,652
6,500,969	7,011,807	11/101,209	11/228,568	11/378,057	11/537,462
6,534,661	7,045,479	11/101,241	11/264,918	11/378,877	11/538,339
6,576,214	7,045,481	11/103,676	11/325,908	11/393,334	
6,740,615	7,067,103	11/104,324	11/327,085	11/435,165	
6,746,597	7,105,143	11/106,831	11/327,249	11/435,580	

On October 2, 2006, HEADWATERS NANOKINETIX, INC. was merged with and into HEADWATERS TECHNOLOGIES INNOVATION GROUP, INC., a Utah corporation having a principal place of business at 1501 New York Avenue, Lawrenceville, New Jersey 08648, as evidenced by the documents attached hereto at Exhibit A, with HEADWATERS TECHNOLOGIES INNOVATION GROUP, INC. being the surviving entity and therefore becoming the successor-in-interest to, owner and Assignee of the entire right, title and interest in the Subject Patents and Applications and the inventions described therein.

On October 19, 2006, HEADWATERS TECHNOLOGIES INNOVATION GROUP, INC. was converted into HEADWATERS TECHNOLOGY INNOVATION, LLC, a Utah limited liability company having a principal place of business at 1501 New York Avenue, Lawrenceville, New Jersey 08648, as evidenced by the documents attached hereto at Exhibit B, such that HEADWATERS TECHNOLOGY INNOVATION, LLC is now the successor-in-interest to, owner and Assignee of:

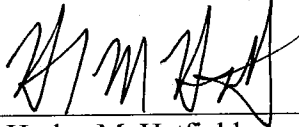
The entire right, title and interest in the Subject Patents and Applications and the inventions described therein, and in all divisions, continuations and continuations-in-part of the Subject Patents and Applications, and in any reissues or extensions of Letters Patent or Patents granted thereon, an in all corresponding applications filed in countries foreign to the United States, and in all patents issuing thereon in the United States and Foreign countries, as well as the right to sue for past infringement and damages under any and all such patents.

The right to file foreign patent applications on said inventions in its own name, wherever such right may be legally exercised, including the right to claim the benefits of the International Convention for such applications.

This assignment and agreement shall be binding upon HNT'S successors, assigns and legal representatives.

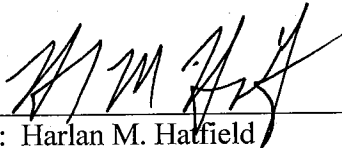
Dated this 12th day of December 2006.

HEADWATERS NANOKINETIX, INC.



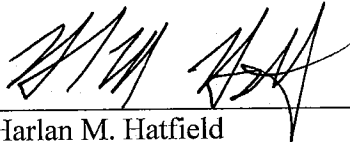
By: Harlan M. Hatfield
Vice President

HEADWATERS TECHNOLOGY INNOVATION GROUP, INC.



By: Harlan M. Hatfield
Vice President

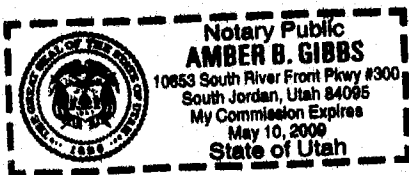
HEADWATERS TECHNOLOGY INNOVATION, LLC




By: Harlan M. Hatfield
Vice President

STATE OF Utah)
) : ss.
COUNTY OF Salt Lake)

On this 12th day of December 2006, before me personally appeared HARLAN M. HATFIELD, known to me to be the person described and who signed the foregoing Assignment in my presence and acknowledged under oath before me that he have read the same and know the contents thereof and that they executed the same as their free act and deed and for the purposes set forth therein.




NOTARY PUBLIC

(SEAL)

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EXHIBIT A

RECEIVED

OCT 26 2006

ARTICLES OF MERGER

Utah Div. Of Corp. & Comm. Code

OF

HEADWATERS NANOKINETIX, INC.
(a Utah corporation)

WITH AND INTO

HEADWATERS TECHNOLOGY INNOVATION GROUP, INC.
(a Utah corporation)

Pursuant to the provisions of Section 16-10a-1105 of the Utah Revised Business Corporation Act, as amended (the "Act"), the undersigned, Headwaters NanoKinetix, Inc., a Utah corporation (the "Merging Entity"), and Headwaters Technology Innovation Group, Inc., Utah corporation (the "Surviving Entity"), certify the following articles of merger adopted for the purpose of effecting a merger in accordance with the provisions of Part Eleven of the Act and hereby execute the following Articles of Merger:

10-26-06P03:06 RCVD

ARTICLE ONE – NAMES

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ARTICLE THREE – PLACE OF BUSINESS

The Surviving Entity shall continue to be governed by the laws of the State of Utah. The principal place of business for the Surviving Entity as the surviving corporation shall be 10653 South River Front Parkway, Suite 300, South Jordan, Utah 84095.

PATENT

REEL: 018645 FRAME: 0849

ARTICLE FOUR – ARTICLES OF INCORPORATION

There are no amendments to the Articles of Incorporation of the Surviving Entity, which shall be the Articles of Incorporation of the Surviving Entity as the surviving corporation.

ARTICLE FIVE – SHAREHOLDER VOTE

The authorized capitalized stock of the Merging Entity at the time of adoption of the Plan of Merger was 100 shares of common stock, with 100 shares of common stock outstanding. The number of votes entitled to be cast was 100. Pursuant to an Action by Written Consent of the Shareholder dated October 2, 2006, approving the merger, the number of votes cast in favor of the Plan were 100. No shares voted against the Plan of Merger.

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ARTICLE SIX – EFFECTIVE DATE

The merger will become effective upon the filing of these Articles of Merger with the Utah Division of Corporations and Commercial Code.

ARTICLE SEVEN – COMPLIANCE WITH LAWS

The Merging Entities have complied with all provisions of the laws of the State of Utah, which is the jurisdiction in which the Merging Entities were organized and which is applicable to the proposed merger.

EXHIBIT A

Plan of Merger

See Attached

PLAN OF MERGER

BETWEEN

HEADWATERS NANOKINETIX, INC.
(a Utah Corporation)

WITH AND INTO

HEADWATERS TECHNOLOGY INNOVATION GROUP, INC.
(a Utah Corporation)

This Plan of Merger (the "Plan of Merger") is made and entered into as of the 2nd day of October, 2006, by and between Headwaters NanoKinetix, Inc., a Utah corporation (hereafter the "Merging Entity"), and Headwaters Technology Innovation Group, Inc., a Utah corporation (hereafter the "Surviving Entity"). The Merging Entity and the Surviving Entity are hereafter collectively referred to as the "Merging Corporations".

RECITALS:

1. The Merging Entity is a Utah corporation with its principal place of business located in South Jordan, Utah.
2. The Surviving Entity is a Utah corporation with its principal place of business located in South Jordan, Utah.
3. The board of directors of each of the Merging Corporations deems it advisable that the Merging Entity be merged with and into the Surviving Entity upon the terms and subject to the conditions hereinafter set forth, in accordance with the applicable provisions of the laws of the State of Utah, which permits such merger, to among other things, facilitate the consolidation of the group of companies that Merging Entity and Surviving Entity are a part of.
4. The Merging Corporations expect and intend that the Merger will qualify as a reorganization under Section 368(a) of the Internal Revenue Code, as amended.

AGREEMENT:

In consideration of the foregoing recitals and of the agreements, covenants and provisions hereinafter contained, Merging Entity and the Surviving Entity, by their respective boards of directors, have agreed and do hereby agree, each with the other as follows:

ARTICLE I
MERGER

The Merging Entity shall be merged with and into Surviving Entity and both entities shall become a single corporation in accordance with the applicable provisions of the laws of the State of Utah, with the Surviving Entity being the surviving corporation (the "Merger").

ARTICLE II
EFFECT OF MERGER

Upon the Merger becoming effective (the "Effective Time") as provided under the applicable laws of the State of Utah and as set forth in the Articles of Merger filed with the Utah Division of Corporations and Commercial Code:

2.1 The Merging Entity and the Surviving Entity shall be a single corporation with the Surviving Entity as the surviving corporation and the separate existence of the Merging Entity shall cease, except to the extent provided by the laws of the States of Utah in the case of a corporation after its merger into another corporation.

2.2 The Surviving Entity shall thereupon and thereafter possess all the rights, privileges, immunities and franchises, of both a public and a private nature, of each of the Merging Corporations; and all property, real, personal and mixed, and all debts due on whatever account, including subscriptions to shares, and all other choses in action, and all and every other interest of, or belonging to, or due to each of the Merging Corporations, shall be taken and deemed to be vested in the Surviving Entity as the surviving corporation without further act or deed; and the title to all real estate, or any interest therein, vested in either of the Merging Corporations shall not revert or be in any way impaired by reason of the Merger.

2.3 The Surviving Entity shall thenceforth be responsible and liable for all of the liabilities and obligations of each of the Merging Corporations, including, without limitation, any and all fees and franchises taxes; and any claim existing or action or proceeding pending by or against either of the Merging Corporations may be prosecuted to judgment as if the Merger had not taken place, or the Surviving Entity may be substituted in its place, and neither the rights of creditors nor any liens upon the property of either of the Merging Corporations shall be impaired by the Merger.

2.4 The aggregate amount of the net assets of the Merging Corporations which was available for the payment of dividends immediately prior to the Merger, to the extent that the value thereof is not transferred to stated capital by the issuance of shares or otherwise, shall continue to be available for the payment of dividends by the Surviving Entity.

2.5 The Bylaws of the Surviving Entity as existing and constituted immediately prior to the Effective Time shall continue in full force and effect as the Bylaws of the Surviving Entity as the surviving corporation.

2.6 The board of directors, and the members thereof, and the officers of the Surviving Entity immediately prior to the Effective Time shall be and constitute the board of directors, and the members thereof, and the officers of the surviving corporation.

ARTICLE III CONVERSION OF SHARES

The manner and basis of converting the shares of the Merging Corporations shall be as follows:

3.1 Upon consummation of the Merger, each issued and outstanding share of the Merging Entity stock shall be automatically cancelled and shall cease to exist and no consideration shall be paid or delivered in exchange therefore.

3.2 Upon consummation of the Merger, each share of common stock of the Surviving Entity, which is outstanding immediately prior to the Merger shall remain outstanding.

ARTICLE IV ARTICLES OF INCORPORATION

There are no amendments to the Articles of Incorporation of the Surviving Entity, which shall be the Articles of Incorporation of the Surviving Entity as the surviving corporation until further amended in the manner provided by law.

ARTICLE V SUBSEQUENT ACTIONS

If, at any time after the Effective Time, the Surviving Entity shall consider or be advised that any deeds, bills of sale, assignments, assurances, or any other actions or things are necessary or desirable to vest, perfect or confirm of record or otherwise in the Surviving Entity its right, title or interest in, to or under any of the rights, properties or assets of the Merging Entity acquired or to be acquired by the Surviving Entity as a result of, or in connection with, the Merger or otherwise to carry out this Plan of Merger, the officers and directors of the Surviving Entity shall

be authorized to execute and deliver, in the name and on behalf of the Merging Entity or otherwise, all such deeds, bills of sale, assignments and assurances, and to make and do, in the name and on behalf of the Merging Entity or otherwise, all such other actions and things as may be necessary or desirable to vest, perfect or confirm any right, title and interest in, to and under such rights, properties or assets in the Surviving Entity or otherwise to carry out this Plan of Merger.

ARTICLE VI
SHAREHOLDER VOTE

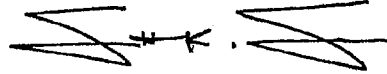
The authorized capitalized stock of the Merging Entity at the time of adoption of the Plan of Merger was 100 shares of common stock, with 100 shares of common stock outstanding. The number of votes entitled to be cast was 100. Pursuant to an Action by Written Consent of the Shareholder dated October 19, 2006, approving the merger, the number of votes cast in favor of the Plan were 100. No shares voted against the Plan of Merger.

The authorized capitalized stock of the Surviving Entity at the time of adoption of the Plan of Merger was 100 shares of common stock, with 100 shares of common stock outstanding. The number of votes entitled to be cast was 100. Pursuant to an Action by Written Consent of the Shareholder dated October 19, 2006, approving the merger, the number of votes cast in favor of the Plan were 100. No shares voted against the Plan of Merger.

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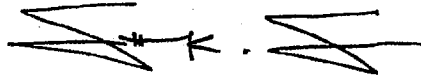
IN WITNESS WHEREOF, the Merging Entity and the Surviving Entity, pursuant to the approval and authority duly given by resolutions adopted by their respective boards of directors, have each caused this Plan of Merger to be executed this 2nd day of October, 2006.

HEADWATERS NANOKINETIX, INC.



By: Scott K. Sorensen
Its: Chief Financial Officer

HEADWATERS TECHNOLOGY INNOVATION
GROUP, INC.

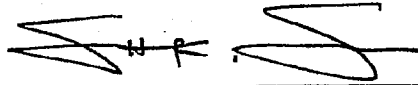


By: Scott K. Sorensen
Its: Chief Financial Officer

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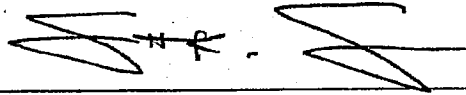
IN WITNESS WHEREOF the undersigned, being thereunto duly authorized, have executed these Articles of Merger on behalf of the Merging Entities as of this 2nd day of October, 2006.

HEADWATERS NANOKINETIX, INC.



By: Scott K. Sorensen
Its: Chief Financial Officer

HEADWATERS TECHNOLOGY INNOVATION
GROUP, INC.



By: Scott K. Sorensen
Its: Chief Financial Officer

893782

**JOINT ACTION BY WRITTEN CONSENT
OF THE BOARD OF DIRECTORS AND SHAREHOLDER OF
HEADWATERS NANOKINETIX, INC.**

The undersigned constituting the sole member of the Board of Directors and the sole Shareholder of Headwaters NanoKinetix, Inc., a Utah corporation (the "Company"), hereby adopt the following resolutions by written consent in accordance with Sections 16-10a-704 and 16-10a-821 of the Utah Revised Business Corporation Act, as amended (the "Act"):

Merger of the Company into Headwaters Technology Innovation Group, Inc.

RESOLVED: That the Director of the Company hereby deems it advisable and in the best interests of the Company and its shareholder that the Company be merged with and into Headwaters Technology Innovation Group, Inc. (the "Surviving Entity") in accordance with the terms and conditions of the Plan of Merger between the Company and the Surviving Entity (the "Merger"), a copy of which has been made available to the Director (the "Merger Agreement") to among other things, facilitate the consolidation of the group of companies that the Company and the Surviving Entity are a part of;

RESOLVED FURTHER: That the Director of the Company hereby recommends that the shareholder of the Company approve the Merger;

RESOLVED FURTHER: That the sole Shareholder of the Company does hereby approve the Merger in accordance with the terms and conditions of the Merger Agreement;

RESOLVED FURTHER: That the Director and the sole Shareholder of the Company hereby approve all instruments, documents and agreements relating to the transactions described in the Merger Agreement;

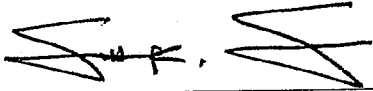
RESOLVED FURTHER: That the officers of the Company are hereby authorized and directed in consultation with legal counsel and other advisors to revise the terms and conditions of and execute and deliver the Merger Agreement, Articles of Merger, and all other instruments, certificates, agreements and documents related thereto or referred to therein or in these resolutions, or, in the judgment of any such persons or the Company's legal counsel, necessary in order to consummate the transactions contemplated in the Merger Agreement and that the actions prior to the date hereof of each of such persons in connection with the Merger Agreement and the transactions contemplated therein, including, the establishing of terms and conditions, the delivery of information and documents and the execution and delivery of agreements, are hereby ratified, confirmed and approved by the Director and the sole Shareholder of the Company;

RESOLVED FURTHER: That the Director and the sole Shareholder of the Company hereby approve, accept, and ratify all past acts by the officers related to any transactions described in the foregoing resolutions.

IN WITNESS WHEREOF, the undersigned have executed this Action by Written Consent as of October 2, 2006.

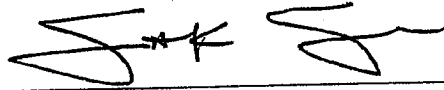
SHAREHOLDER:

HEADWATERS TECHNOLOGY
INNOVATION GROUP, INC.



By: Scott K. Sorensen
Its: Chief Financial Officer

DIRECTOR:



Scott K. Sorensen

893785

**JOINT ACTION BY WRITTEN CONSENT
OF THE BOARD OF DIRECTORS AND SHAREHOLDER OF
HEADWATERS TECHNOLOGY INNOVATION GROUP, INC.**

The undersigned constituting the sole member of the Board of Directors and the sole Shareholder of Headwaters Technology Innovation Group, Inc., a Utah corporation (the "Company"), hereby adopt the following resolutions by written consent in accordance with Sections 16-10a-704 and -821 of the Utah Revised Business Corporation Act, as amended (the "Act"):

Conversion of the Company into a Utah Limited Liability Company

RESOLVED: That the Board of Directors of the Company hereby deems it advisable and in the best interests of the Company and its shareholder to convert the Company from a Utah corporation into a Utah limited liability company under the name of "Headwaters Technology Innovation, LLC" (hereafter the "Subsidiary") and does hereby approve such conversion and recommends to the sole shareholder that it approve the conversion.

FURTHER RESOLVED: That the sole shareholder of the Company hereby approves and adopts the conversion of the Company from a Utah corporation into a Utah limited liability company.

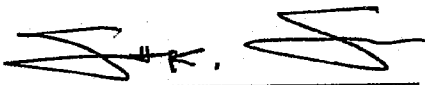
FURTHER RESOLVED: That the officers of the Company be, and each hereby is, authorized and directed to execute Articles of Conversion and Articles of Organization on behalf of the Company and cause the same to be filed with the Utah Department of Commerce, Division of Corporations and Commercial Code and to execute the Operating Agreement and cause the same to be filed in the Company's records.

FURTHER RESOLVED: That the Board of Directors and sole shareholder hereby approve all instruments, documents, articles and agreements relating to the conversion of the Company to a Utah limited liability company, including, without limitation, the Articles of Conversion, Articles of Organization and Operating Agreement made available to the Board of Directors and sole shareholder.

IN WITNESS WHEREOF, the undersigned have executed this Action by Written Consent effective as of October 19, 2006.

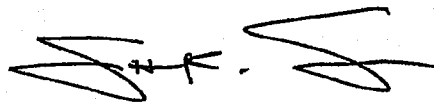
SHAREHOLDER:

HEADWATERS INCORPORATED



By: Scott K. Sorensen
Its: Chief Financial Officer

DIRECTOR:



Scott K. Sorensen

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EXHIBIT B

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Utah Div. Of Corp. & Comm. Code

ARTICLES OF CONVERSION

OF

HEADWATERS TECHNOLOGY INNOVATION GROUP, INC.
a Utah Corporation

INTO

HEADWATERS TECHNOLOGY INNOVATION, LLC
a Utah Limited Liability Company

Headwaters Technology Innovation Group, Inc., a Utah corporation, duly organized and existing under the laws of the State of Utah (the "Corporation"), does hereby convert into Headwaters Technology Innovation, LLC, a Utah limited liability company (the "LLC") in accordance with the Utah Revised Uniform Limited Liability Company Act, Section 48-2c-1401 *et seq.*, Utah Code Annotated, as follows:

FIRST: The Corporation was created on the 9th day of April, 2003, in and under the laws of the State of Utah. The Corporation was a Utah Corporation immediately prior to the filing of these Articles of Conversion.

SECOND: The name of the Corporation immediately prior to the filing of these Articles of Conversion was: **Headwaters Technology Innovation Group, Inc.**

THIRD: The name of the LLC into which the Corporation is converting is:
Headwaters Technology Innovation, LLC.

FOURTH: The conversion of the Corporation into the LLC shall be effective upon the filing of these Articles of Conversion and the Articles of Organization for the LLC, which are filed contemporaneous with these Articles of Conversion.

FIFTH: The conversion of the Corporation into the LLC was duly approved by the sole shareholder of the Corporation.

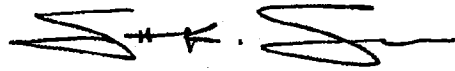
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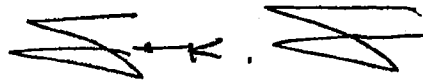
IN WITNESS WHEREOF, the Corporation has executed these Articles of
Conversion this 19th day of October, 2006.

HEADWATERS TECHNOLOGY INNOVATION
GROUP, INC.



By: Scott K. Sorensen
Its: Chief Financial Officer

HEADWATERS TECHNOLOGY
INNOVATION, LLC



By: Scott K. Sorensen
Its: Manager

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Utah Div. Of Corp. & Comm. Code

ARTICLES OF ORGANIZATION
OF
HEADWATERS TECHNOLOGY INNOVATION, LLC

The undersigned person hereby establishes a Utah limited liability company pursuant to the Utah Revised Limited Liability Company Act, Chapter 2c of Title 48 of the Utah Code of 1953, as amended (hereinafter the "Act").

ARTICLE I
NAME

The name of the limited liability company is Headwaters Technology Innovation, LLC (hereinafter the "Company").

ARTICLE II
PERIOD OF DURATION

The Company's duration shall continue through December 31, 2100, unless earlier terminated by law or pursuant to the Company's Operating Agreement.

ARTICLE III
PURPOSES

The Company is organized for any legal and lawful purpose of engaging in any lawful act or activity for which limited liability companies may be organized under the Utah Revised Limited Liability Company Act.

ARTICLE IV
REGISTERED AGENT AND OFFICE

The Company's registered office shall be at 50 West Broadway, Salt Lake City, UT 84101, and the name of the initial registered agent at such address shall be CT Corporation System. The director of the Division is appointed the agent of the Company for service of process if the Company's registered agent has resigned, his authority has been revoked, or he cannot be found or served with the exercise of reasonable diligence.

ARTICLE V
DESIGNATED OFFICE

The street address of the Company's designated office is 10653 South River Front Parkway, Suite 300, South Jordan, Utah 84095.

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ARTICLE VI
ORGANIZER

The name and street address of the Organizer of the Company is Jason T. Day, 10653 South River Front Parkway, Suite 300, South Jordan, Utah 84095.

ARTICLE VII
MANAGEMENT

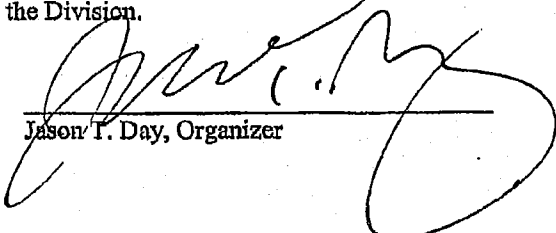
The business and affairs of the Company shall be managed by a manager. The name and address of the initial manager of the Company is:

Scott K. Sorensen
10653 South River Front Parkway, Suite 300
South Jordan, Utah 84095

ARTICLE VIII
INDEMNIFICATION

The Company shall indemnify to the fullest extent permitted by the Utah Limited Liability Company Act any person or entity who was or is a party or is threatened to be made a party to any threat, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative by reason of the fact that he, she or it is or was a Member or Officer of the Company.

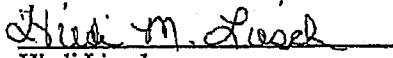
IN WITNESS WHEREOF, the undersigned have duly executed these Articles of Organization effective as of the 19th day of October, 2006, in accordance with the requirements of Section 48-2c-409(4)(a) to be filed with the Division.



Jason T. Day, Organizer

ACCEPTANCE AS REGISTERED AGENT:

CT CORPORATION SYSTEM

By: 

Heidi Liesch
Assistant Secretary

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