

# PCT

## REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

For receiving Office use only

PCT/US08/67324

International Application No.

18 JUN 2008 (18.06.08)

International Filing Date

PCT INTERNATIONAL APPLICATION  
RO/US

Name of receiving Office and "PCT international Application"

Applicant's or agent's file reference  
(if desired) (12 characters maximum) 68439WO (49391)

### Box No. I TITLE OF INVENTION

TIRE FOR MATERIAL TREATMENT SYSTEM

### Box No. II APPLICANT

This person is also inventor

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

RILEY POWER, INC.  
5 Neponset Street  
Worcester, Massachusetts 01613  
UNITED STATES OF AMERICA

Telephone No.

Facsimile No.

Applicant's registration No. with the Office

State (that is, country) of nationality:  
US

State (that is, country) of residence:  
US

This person is applicant for the purposes of:  all designated States  all designated States except the United States of America  the United States of America only  the States indicated in the Supplemental Box

### Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

LIN, Qingsheng  
33 Red Barn Road  
Holden, Massachusetts 01520  
UNITED STATES OF AMERICA

This person is:

- applicant only  
 applicant and inventor  
 inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

State (that is, country) of nationality:  
CN

State (that is, country) of residence:  
US

This person is applicant for the purposes of:  all designated States  all designated States except the United States of America  the United States of America only  the States indicated in the Supplemental Box

Further applicants and/or (further) inventors are indicated on a continuation sheet.

### Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE

The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:

agent  common representative

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

Joshua L. Jones  
Edwards Angell Palmer & Dodge LLP  
P.O. Box 55874  
Boston, Massachusetts 02205  
United States of America

Telephone No.

203-353-6870

Facsimile No.

866-255-3049

Agent's registration No. with the Office

57,044

Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

| <b>Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)</b>   |   |
|--|---|
| <i>If none of the following sub-boxes is used, this sheet should not be included in the request.</i>   |   |
| <p>Name and address: <i>(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</i></p> <p>KOKKINOS, Angelos<br/>27 Mountain Laurel Drive<br/>Ayer, Massachusetts 01432<br/>UNITED STATES OF AMERICA</p> | <p>This person is:</p> <p><input type="checkbox"/> applicant only</p> <p><input checked="" type="checkbox"/> applicant and inventor</p> <p><input type="checkbox"/> inventor only <i>(If this check-box is marked, do not fill in below.)</i></p> <p>Applicant's registration No. with the Office</p> |
| State <i>(that is, country)</i> of nationality:<br>US  | State <i>(that is, country)</i> of residence:<br>US   |
| <p>This person is applicant for the purposes of: <input type="checkbox"/> all designated States <input type="checkbox"/> all designated States except the United States of America <input checked="" type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box</p>   |   |
| <p>Name and address: <i>(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</i></p> <p>CREELMAN, Joshua<br/>515 Burncoat Street<br/>Worcester, Massachusetts 01605<br/>UNITED STATES OF AMERICA</p>  | <p>This person is:</p> <p><input type="checkbox"/> applicant only</p> <p><input checked="" type="checkbox"/> applicant and inventor</p> <p><input type="checkbox"/> inventor only <i>(If this check-box is marked, do not fill in below.)</i></p> <p>Applicant's registration No. with the Office</p> |
| State <i>(that is, country)</i> of nationality:<br>US  | State <i>(that is, country)</i> of residence:<br>US   |
| <p>This person is applicant for the purposes of: <input type="checkbox"/> all designated States <input type="checkbox"/> all designated States except the United States of America <input checked="" type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box</p>   |   |
| <p>Name and address: <i>(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</i></p> <p>MORSE, Gregory L.<br/>17 Brook Street<br/>Auburn, Massachusetts 01501<br/>UNITED STATES OF AMERICA</p>        | <p>This person is:</p> <p><input type="checkbox"/> applicant only</p> <p><input checked="" type="checkbox"/> applicant and inventor</p> <p><input type="checkbox"/> inventor only <i>(If this check-box is marked, do not fill in below.)</i></p> <p>Applicant's registration No. with the Office</p> |
| State <i>(that is, country)</i> of nationality:<br>US  | State <i>(that is, country)</i> of residence:<br>US   |
| <p>This person is applicant for the purposes of: <input type="checkbox"/> all designated States <input type="checkbox"/> all designated States except the United States of America <input checked="" type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box</p>   |   |
| <p>Name and address: <i>(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)</i></p> <p>SLEZAK, Ivo<br/>39 Streeter Road<br/>Hubbardston, Massachusetts 01452<br/>UNITED STATES OF AMERICA</p>        | <p>This person is:</p> <p><input type="checkbox"/> applicant only</p> <p><input checked="" type="checkbox"/> applicant and inventor</p> <p><input type="checkbox"/> inventor only <i>(If this check-box is marked, do not fill in below.)</i></p> <p>Applicant's registration No. with the Office</p> |
| State <i>(that is, country)</i> of nationality:<br>US  | State <i>(that is, country)</i> of residence:<br>US   |
| <p>This person is applicant for the purposes of: <input type="checkbox"/> all designated States <input type="checkbox"/> all designated States except the United States of America <input checked="" type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box</p>   |   |
| <p><input type="checkbox"/> Further applicants and/or (further) inventors are indicated on another continuation sheet.</p>   |   |

**Supplemental Box**

*If the Supplemental Box is not used, this sheet should not be included in the request.*

1. *If, in any of the Boxes, except Boxes Nos. VIII(i) to (v) for which a special continuation box is provided, the space is insufficient to furnish all the information: in such case, write "Continuation of box No. ...." (indicate the number of the Box) and furnish the information in the same manner as required according to the captions of the Box in which the space was insufficient, in particular:*

(i) *if more than two persons are to be indicated as applicants and/or inventors and no "continuation sheet" is available: in such case, write "Continuation of Box No. III" and indicate for each additional person the same type of information as required in Box No. III. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below;*

(ii) *if, in Box No. II or in any of the sub-boxes of Box No. III, the indication "the States indicated in the Supplemental Box" is checked: in such case, write "Continuation of Box No. II" or "Continuation of Box No. III" or "Continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the applicant(s) involved and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is applicant;*

(iii) *if, in Box No. II or in any of the sub-boxes of Box No. III, the inventor or the inventor/applicant is not inventor for the purposes of all designated States or for the purposes of the United States of America: in such case, write "Continuation of Box No. II" or "Continuation of Box No. III" or "Continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the inventor(s) and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is inventor;*

(iv) *if, in addition to the agent(s) indicated in Box No. IV, there are further agents: in such case, write "Continuation of Box No. IV" and indicate for each further agent the same type of information as required in Box IV;*

(v) *if, in Box No. VI, there are more than three earlier applications whose priority is claimed: in such case, write "Continuation of Box No. VI" and indicate for each additional earlier application the same type of information as required in Box No. VI.*

2. *If the applicant intends to make an indication of the wish that the international application be treated, in certain designated States, as an application for a patent of addition, certificate of addition, inventor's certificate of addition or utility certificate of addition: in such a case, write the name or two-letter code of each designated State concerned and the indication "patent of addition," "certificate of addition," "inventor's certificate of addition" or "utility certificate of addition," the number of the parent application or parent patent or other parent grant and the date of grant of the parent patent or other patent grant or the date of filing of the parent application (Rules 4.11(a)(iii) and 49bis.1(a) or (b)).*

3. *If the applicant intends to make an indication of the wish that the international application be treated, in the United States of America, as a continuation or continuation-in-part of an earlier application: in such a case, write "United States of America" or "US" and the indication "continuation" or "continuation-in-part" and the number and the filing date of the parent application (Rules 4.11(a)(iv) and 49bis.1(d)).*

Continuation of Box No. IV:

\* Gi-In An; James E. Armstrong, IV, 42,266; Matthew Beaudet, 50,649; William L. Brooks, 34,129; Linda M. Buckley, 31,003; Gregory B. Butler, Ph.D., Esq., 34,558; George N. Chaclos, 46,608; Elbert Chiang, Ph.D., 60,325; David G. Conlin, 27,026; Peter F. Corless, 33,860; Christopher Cowles, 59,931; William J. Daley, Jr., 35,487; Amy DeCloux, 54,849; Nicholas J. DiCeglie, Jr., 51,615; Brian M. Gaff, 44,691; Howard M. Gitten, 32,138; Brandi M. Grandinetti, 56,955; David I. Greenbaum, 46,739; Lisa Swiszc Hazzard, 44,368; Jeffrey D. Hsi, 40,024; Melissa Hunter-Ensor, Ph.D., 55,289; Steven M. Jensen, 42,693; \* Alexandra Jordan Jones, Ph.D.; Joshua L. Jones, 57,044; Dwight D. Kim, Ph.D., 57,665; Kongsik Kim, L0364; Jeffrey Kopacz, 54,744; Barry Kramer, 20,622; Brian R. Landry, 62,074; Peter C. Lauro, 32,360; \* Jonathan Z. Lin; Ralph A. Loren, 29,325; Peter J. Manso, 32,264; Peter J. Manus, 26,766; Jacob P. Martinez, 57,924; Gabriel J. McCool, 58,423; Colleen McKiernan, Ph.D., 48,570; George W. Neuner, 26,964; Christine C. O'Day, 38,256; Stephana E. Patton, 50,373; John J. Penny, Jr., 36,984; Kathryn A. Piffat, Ph.D., Esq., 34,901; Brian R. Pollack, 47,001; Michael J. Pollack, 53,475; Mark D. Russett, 41,281; Peter C. Schechter, 31,662; Philip T. Shannon, 24,278; David J. Silvia, 49,036; Richard Smith, 34,020; Elizabeth Spar, 45,123; Jonathan M. Sparks, Ph.D., 53,624; \* Catherine J. Toppin; David A. Tucker, 27,840; Jun Umemuro, L0247; David Weild, III, 21,094; Jacob G. Weintraub, 56,469; Kathleen Williams, 34,380; and Scott D. Wofsy, 35,413

**Box No. V DESIGNATIONS**

The filing of this request **constitutes under Rule 4.9(a), the designation** of all Contracting States bound by the PCT on the international filing date, for the grant of every kind of protection available and, where applicable, for the grant of both regional and national patents.

However,

- DE Germany is **not designated** for any kind of national protection.
- JP Japan is **not designated** for any kind of national protection.
- KR Republic of Korea is **not designated** for any kind of national protection.
- RU Russian Federation is **not designated** for any kind of national protection.

*(The check-boxes above may be used to exclude (irrevocably) the designations concerned if, at the time of filing or subsequently under Rule 26bis.1, the international application contains in Box No. VI a priority claim to an earlier national application filed in the particular State concerned, in order to avoid the ceasing of the effect, under the national law, of this earlier national application.)*

**Box No. VI PRIORITY CLAIM**

The priority of the following earlier application(s) is hereby claimed:

|          | Filing date<br>of earlier application<br>(day/month/year) | Number<br>of earlier application | Where earlier application is:                        |  |   |
|----------|---|----------------------------------|--|--|---|
|          |   |                                  | national application:<br>country or Member<br>of WTO | regional application:<br>regional Office | international application<br>receiving Office |
| item (1) | 02 July 2007<br>(02.07.2007)                              | 11/824, 616                      | US   |  |   |
| item (2) |   |                                  |  |  |   |
| item (3) |   |                                  |  |  |   |

Further priority claims are indicated in the Supplemental Box.

**Transmit certified copy:** the receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) *(only if the earlier application was filed with the Office which for the purposes of this international application is the receiving Office)* identified above as:

all items     item (1)     item (2)     item (3)     other, see Supplemental Box

**Restore the right of priority:** the receiving Office is requested to restore the right of priority for the earlier application(s) identified above or in the Supplemental Box as item(s) ( \_\_\_\_\_ ). *(See also the Notes to Box No. VI; further information must be provided to support a request to restore the right of priority.)*

**Incorporation by reference:** where an element of the international application referred to in Article 11(1)(iii)(d) or (e) or a part of the description, claims or drawings referred to in Rule 20.5(a) is not otherwise contained in this international application but is completely contained in an earlier application whose priority is claimed on the date on which one or more elements referred to in Article 11(1)(iii) were first received by the receiving Office, that element or part is, subject to confirmation under Rule 20.6, incorporated by reference in this international application for the purposes of Rule 20.6.

**Box No. VII INTERNATIONAL SEARCHING AUTHORITY**

**Choice of International Searching Authority (ISA)** *(if two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code maybe used):*

ISA/US

**Request to use results of earlier search; reference to that search** *(if an earlier search has been carried out by or requested from the International Searching Authority):*

Date (day/month/year)                                  Number                                  Country (or regional Office)

**Box No. VIII DECLARATIONS**

The following **declarations** are contained in Boxes Nos. VIII (i) to (v) *(mark the applicable check-boxes below and indicate in the right column the number of each type of declaration):*

- |   | Number of<br>declarations |
|---|---------------------------|
| <input type="checkbox"/> Box No. VIII (i)      Declaration as to the identity of the inventor   | :                         |
| <input type="checkbox"/> Box No. VIII (ii)      Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent              | :                         |
| <input type="checkbox"/> Box No. VIII (iii)      Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application | :                         |
| <input type="checkbox"/> Box No. VIII (iv)      Declaration of inventorship (only for the purposes of the designation of the United States of America)                                | :                         |
| <input type="checkbox"/> Box No. VIII (v)      Declaration as to non-prejudicial disclosures or exceptions to lack of novelty   | :                         |

| <b>Box No. IX CHECK LIST; LANGUAGE OF FILING</b>   |   |   |
|--|---|---|
| <p>This international application <b>contains:</b></p> <p>(a) <b>on paper</b>, the following number of sheets:</p> <p>request (including declaration and supplemental sheets) : 5</p> <p>description (excluding sequence listings and/or tables related thereto) : 16</p> <p>claims : 6</p> <p>abstract : 1</p> <p>drawings : 7</p> <p><b>Sub-total number of sheets</b> : 35</p> <p>sequence listings : _____</p> <p>tables related thereto : _____</p> <p><i>(for both, actual number of sheets if filed on paper, whether or not also filed in electronic form; see (c) below)</i></p> <p><b>Total number of sheets</b> : 35</p> <p>(b) <input type="checkbox"/> <b>only in electronic form</b> (Section 801(a)(i))</p> <p>(i) <input type="checkbox"/> sequence listings</p> <p>(ii) <input type="checkbox"/> tables related thereto</p> <p>(c) <input type="checkbox"/> <b>also in electronic form</b> (Section 801(a)(ii))</p> <p>(i) <input type="checkbox"/> sequence listings</p> <p>(ii) <input type="checkbox"/> tables related thereto</p> <p><b>Type and number of carriers</b> (diskette, CD-ROM, CD-R or other) on which are contained the</p> <p><input type="checkbox"/> sequence listing:</p> <p><input type="checkbox"/> tables related thereto:</p> <p><i>(additional copies to be indicated under items 9(ii) and/or 10(ii), in right column)</i></p> | <p>This international application is <b>accompanied by</b> the following item(s) <i>(mark the applicable check-boxes below and indicate in right column the number of each item):</i></p> <p>1. <input checked="" type="checkbox"/> fee calculation sheet : 1</p> <p>2. <input type="checkbox"/> original separate power of attorney : _____</p> <p>3. <input type="checkbox"/> original general power of attorney : _____</p> <p>4. <input type="checkbox"/> copy of general power of attorney, reference number, if any: : _____</p> <p>5. <input type="checkbox"/> statement explaining lack of signature : _____</p> <p>6. <input type="checkbox"/> priority document(s) identified in Box No. VI as item(s): : _____</p> <p>7. <input type="checkbox"/> translation of international application into <i>(language):</i> : _____</p> <p>8. <input type="checkbox"/> separate indications concerning deposited microorganisms or other biological material : _____</p> <p>9. <input type="checkbox"/> sequence listing in electronic form <i>(indicate type and number of carriers)</i></p> <p>(i) <input type="checkbox"/> copy submitted for the purposes of international search under Rule 13ter only (and not as part of the international application) : _____</p> <p>(ii) <input type="checkbox"/> <i>(only where check-box (b)(i) or (c)(i) is marked in left column)</i> additional copies including, where applicable, the copy for the purposes of international search under Rule 13ter : _____</p> <p>(iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the sequence listing part mentioned in left column : _____</p> <p>10. <input type="checkbox"/> tables in electronic form related to sequence listing <i>(indicate type and number of carriers)</i></p> <p>(i) <input type="checkbox"/> copy submitted for the purposes of international search under Section 802 (b-quater) only (and not as part of the international application) : _____</p> <p>(ii) <input type="checkbox"/> <i>(only where check-box (b)(ii) or (c)(ii) is marked in left column)</i> additional copies including, where applicable, the copy for the purposes of international search under Section 802 (b-quater) : _____</p> <p>(iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the tables mentioned in left column : _____</p> <p>11. <input checked="" type="checkbox"/> other <i>(specify):</i> Transmittal : 1</p> | <p>Number of items</p>                              |
| <p><b>Figure of the drawings</b> which should accompany the abstract: 1</p>  | <p><b>Language of filing of the international application:</b> English</p>  |   |
| <p><b>Box No. X SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE</b></p> <p><i>Next to each signature indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).</i></p>   |   |   |
| <p> _____</p> <p>Joshua L. Jones, Agent for Applicant(s)</p> <p>EDWARDS ANGELL PALMER &amp; DODGE LLP</p>  |   | <p>Attorney Reg. No. (when applicable): 57, 044</p> |
| <p>For receiving Office use only</p>   |   |   |
| <p>1. Date of actual receipt of the purported international application: 18 JUN 2008 (18.06.08)</p>  | <p>2. Drawings:</p> <p><input type="checkbox"/> received:</p> <p><input type="checkbox"/> not received:</p>   |   |
| <p>3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:</p>   |   |   |
| <p>4. Date of timely receipt of the required corrections under PCT Article 11(2):</p>  |   |   |
| <p>5. International Searching Authority (if two or more are competent): ISA / US</p>   | <p>6. <input type="checkbox"/> Transmittal of search copy delayed until search fee is paid.</p>   |   |
| <p>For International Bureau use only</p>   |   |   |
| <p>Date of receipt of the record copy by the International Bureau: _____</p>   |   |   |