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1. Name of conveying party(ies)

Jun Hoshi Keiichi Yoshii
Minobu Mizuno Akira Yamanaka
Mitsuru Kimata Yoshihiko Sonoda
Susumu Ichikawa Hiroshi Nonoyama

Additional name(s) of conveying party(ies) attached? ☐ Yes ☐ No

3. Nature of conveyance/Execution Date(s):

Execution Date(s) June 15, 2005

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Joint Research Agreement
☐ Government Interest Assignment
☐ Executive Order 9424, Confirmatory License
☐ Other _____

2. Name and address of receiving party(ies)

Name: Toyota Jidosha Kabushiki Kaisha

Internal Address: _____

Street Address: 1, Toyota-cho, Toyota-shi, Aichi-ken,
471-8571, Japan

City: _____

State: _____

Country: _____ Zip: _____

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application or patent number(s):

☐ This document is being filed together with a new application.

A. Patent Application No.(s)

Serial No. 11/150,140

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

5. Name and address to whom correspondence concerning document should be mailed:

Name: David J. Zibelli

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6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00

- ☐ Authorized to be charged by credit card
☒ Authorized to be charged to deposit account
☐ Enclosed
☐ None required (government interest not affecting title)

8. Payment Information

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Authorized User Name _____

9. Signature:

David J. Zibelli
Signature

July 29, 2005

Date

David J. Zibelli

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

5

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PATENT
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TEL 0565 26 1307

ASSIGNMENT

WHEREAS, we, Jun HOSHI, Minobu MIZUNO, Mitsuru KIMATA, Susumu ICHIKAWA, Keiichi YOSHII, Akira YAMANAKA, Yoshihiko SONODA and Hiroshi NONOYAMA, citizens of Japan, residing at Toyota-shi, Aichi-ken, Japan, Toyota-shi, Aichi-ken, Japan, Nishikasugai-gun, Japan, Kariya-shi, Aichi-ken, Japan, Anjo-shi, Aichi-ken, Japan, Gifu-shi, Gifu-ken, Japan, Tokoname-shi, Aichi-ken, Japan and Toyota-shi, Aichi-ken, Japan, respectively, have invented new and useful improvements in HEAT EXCHANGE APPARATUS AND HYBRID VEHICLE INCLUDING HEAT EXCHANGE

APPARATUS for which we are about to make application for Letters Patent of the United States, said application having been executed by us on even date herewith; and

WHEREAS, TOYOTA JIDOSHA KABUSHIKI KAISHA, a Company of Japan, having its place of business at 1, Toyota-cho, Toyota-shi, Aichi-ken, 471-8571 Japan (hereinafter referred to as the Assignee), is desirous of acquiring the entire right, title and interest in and to the application and the invention therein described and claimed and any Letters Patent that may be issued upon the application or for the improvements therein contained.

NOW, THEREFORE, for and in consideration of the equivalent sum of One Dollar (\$1.00) to us in hand paid, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned and transferred, and do hereby sell, assign and transfer unto the Assignee, its successors and assigns, the entire right, title and interest in and to the application and the invention therein contained, including the right to apply for any Letters Patent in the United States of America on the invention, any Letters Patent that may issue thereon or therefor, in the United States, and all

reissues, extensions, renewals, divisions and continuations thereof, to the full end of the term or terms for which the Letters Patent may be issued, the same to be held and enjoyed by the Assignee, its successors and assigns, the same as it would have been held and enjoyed by us if this Assignment and sale had not been made.

And we hereby authorize and request the Commissioner of Patents to issue all such Letters Patent to the Assignee, its successors and assigns, in accordance with this instrument of Assignment.

We hereby represent and warrant that there are no rights and interests outstanding inconsistent with the rights and interests granted herein and that we will not execute any instrument or grant or transfer any rights or interests inconsistent therewith, and we bind ourselves, our heirs, executors, administrators and legal representatives, as the case may be, to execute and deliver to the Assignee, its successors and assigns, any further documents or instruments and do any and all further acts that may be deemed necessary by the Assignee, its successors and assigns, to vest in the Assignee, its successors and assigns, the title herein conveyed, or intended so to be, and to enable such title to be recorded in the United States.

And we further covenant and agree, in consideration of the premises that we, our executors and administrators, will at any time upon request communicate to the Assignee, its successors and assigns, any facts relating to the invention and improvements and the history thereof, known to us or our executors and administrators, and that we will testify as to the same in any interference or other litigation when requested so to do by the Assignee, its successors and assigns.

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this
15 day of June, 2005.

Jun Hoshi
(Jun HOSHI)

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this
15 day of June, 2005.

Minobu Mizuno
(Minobu MIZUNO)

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this
15 day of June, 2005.

Mitsuru Kimata
(Mitsuru KIMATA)

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this
15 day of June, 2005.

Susumu Ichikawa
(Susumu ICHIKAWA)

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this
15 day of June, 2005.

Keiichi Yoshii
(Keiichi YOSHII)

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this
15 day of June, 2005.

Akira Yamanaka
(Akira YAMANAKA)

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this
15 day of June, 2005.

Yoshihiko Sonoda
(Yoshihiko SONODA)

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this
15 day of June, 2005.

Hiroshi Nonoyama
(Hiroshi NONOYAMA)

WITNESSED BY:

Eiichi Ishii
Name Eiichi ISHII

Address

WITNESSED BY:

Mikio Hayashi
Name Mikio HAYASHI

Address