

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT7499764

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|------------------------------|----------------|
| SUBMISSION TYPE: | NEW ASSIGNMENT |
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|-------------------|----------------|
| ANTOWAN ZYADA | 08/15/2022 |
| KYOUNG PYO HA | 08/23/2022 |
| SHENGRONG ZHU | 08/08/2022 |
| PHILIP ZOLDAK | 08/08/2022 |
| JEFFREY HOLLOWELL | 08/08/2022 |
| MARK SHIRLEY | 08/15/2022 |
| NICHOLAS FANTIN | 08/08/2022 |

RECEIVING PARTY DATA

| | |
|------------------------|-----------------------------|
| Name: | HYUNDAI MOTOR COMPANY |
| Street Address: | 12, HEOLLEUNG-RO, SEOCHO-GU |
| City: | SEOUL |
| State/Country: | KOREA, REPUBLIC OF |
| Postal Code: | 06797 |
| Name: | KIA CORPORATION |
| Street Address: | 12, HEOLLEUNG-RO, SEOCHO-GU |
| City: | SEOUL |
| State/Country: | KOREA, REPUBLIC OF |
| Postal Code: | 06797 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|----------------------------|----------|
| Application Number: | 17569068 |

CORRESPONDENCE DATA

Fax Number: (609)896-1469

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 617-848-4004

Email: BostonIP@foxrothschild.com

Correspondent Name: FOX ROTHSCHILD LLP

Address Line 1: 997 LENOX DRIVE

Address Line 4: LAWRENCEVILLE, NEW JERSEY 08648-2311

PATENT

| | |
|--|------------------|
| ATTORNEY DOCKET NUMBER: | 347848.00038 |
| NAME OF SUBMITTER: | LYNN E. MARCUS |
| SIGNATURE: | /Lynn E. Marcus/ |
| DATE SIGNED: | 08/23/2022 |
| Total Attachments: 3 source=Assignment#page1.tif source=Assignment#page2.tif source=Assignment#page3.tif | |

ASSIGNMENT OF INVENTION

In consideration of the payment by ASSIGNEE to ASSIGNOR(S) of the sum of One Dollar (\$1.00) and for other good and valuable consideration, the receipt of which is hereby acknowledged, by this document

ASSIGNOR(S):

| Name | Address |
|-------------------|--|
| Antowan Zyada | 19416 Mayfield Avenue, Apt. 203, Livonia, Michigan 48152 |
| Kyoung Pyo Ha | #601-1803, 248, Jeongjail-ro, Bundang-gu, Seongnam, Gyeonggi-do, REPUBLIC OF KOREA |
| Shengrong Zhu | 3759 Bella Vista Drive, Ann Arbor, Michigan 48108 |
| Philip Zoldak | <u>6800 Geddes Road, Superior Township, Michigan 48198</u> |
| Jeffrey Hollowell | 3273 Rio Vista Street, Commerce, Michigan 4382 |
| Mark Shirley | 5301 North Gibbs Road, Albion, Michigan 49224 |
| Nicholas Fantin | 1840 Covington Drive, Ann Arbor, Michigan 48103 |

assigns and transfers to:

ASSIGNEE:

| Name | Address |
|-----------------------|---|
| Hyundai Motor Company | 12, Heolleung-ro, Seocho-gu, Seoul, REPUBLIC OF KOREA 06797 |
| Kia Corporation | 12, Heolleung-ro, Seocho-gu, Seoul, REPUBLIC OF KOREA 06797 |

the entire right, title and interest in and to the invention entitled:

COMBUSTION ENGINE MODE OPTIMIZATION

and which is found in (check one or more):

- the U.S. patent application filed with this assignment document
- U.S. patent application no. 17/569,068, filed January 5, 2022
- International patent application no. , filed
- U.S. patent no. , issued

and in and to

- all patent applications filed and letters patent obtained for the invention, whether foreign and domestic, and all continuations, continuations-in-part, divisions,

- renewals, reissues, re-examinations, or substitutes of any such patent or patent application; and any patents and patent applications to which any such patent or patent application claims priority;
- all rights to any legal equivalent thereof in a foreign country such as patents of addition, utility models, patents of importation, revalidation patents and inventor certificates;
 - the right to apply for patents and inventor certificates relating to the invention, and the right to claim priority to all applications throughout the world in respect of the invention; and
 - the right to sue and recover any and all damages and profits, and any and all other remedies, for past, present, or future infringements of patents directed to the invention.

ASSIGNOR(S) authorizes ASSIGNEE or its legal representative to insert in this instrument the filing date, serial number, and any other information that may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office or any other domestic or foreign government entity for the recordation of this document.

ASSIGNOR(S) warrants and agrees that:

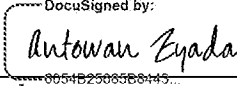
- no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;
- upon request, ASSIGNOR(S) will promptly provide ASSIGNEE with all pertinent facts and documents relating to the invention as may be known and accessible to ASSIGNOR(S);
- ASSIGNOR(S) will, at ASSIGNEE'S expense, testify as to the same in any interference, litigation or proceeding related to the invention;
- ASSIGNOR(S) will promptly execute and deliver to ASSIGNEE, its assigns or its legal representatives, without further or additional consideration, any and all papers, instruments or affidavits required, render all necessary assistance, and do such additional acts as ASSIGNEE or its successors or assigns may deem necessary or desirable, to apply for, obtain, maintain, issue and enforce any resulting patents or patent applications; and
- ASSIGNOR(S) hereby waive all rights to challenge validity of said invention, and any and all patents covering the invention that may issue in the future in the United States.

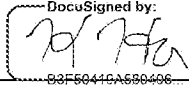
ASSIGNOR(S) hereby authorize and request the Commissioner of Patents and Trademarks and any foreign counterpart to issue any and all letters patent for the invention to ASSIGNEE, for ASSIGNEE'S sole use and benefit, and for the use and benefit of ASSIGNEE'S successors and assigns, to the full end of the term for which such patent may be granted.

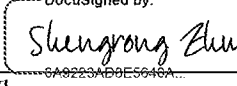
ASSIGNOR(S) hereby irrevocably appoint ASSIGNEE, with full power of substitution, as ASSIGNOR(S)' true and lawful attorney-in-fact in ASSIGNOR(S)' name, place and stead to make, execute, assign, record and file, on ASSIGNOR(S)' behalf and for the benefit of ASSIGNEE, such documents confirming Assignee's ownership-rights that may be necessary or useful in ASSIGNEE's discretion. This Power of Attorney includes, but is not limited to, applying for, securing, maintaining, reissuing extending, or defending ASSIGNEE's

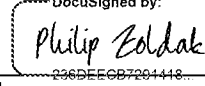
worldwide rights in the invention in any country worldwide, so as to secure to ASSIGNEE the full benefits of the invention and otherwise to carry into full force and effect the text and the intent of this assignment. This grant of authority is a special power of attorney coupled with an interest, is irrevocable and shall survive the incapacity of ASSIGNOR, may be exercised by any representative of ASSIGNEE on behalf of ASSIGNOR(S) by a facsimile or electronic signature, and shall survive any relationship between Assignor and ASSIGNEE.

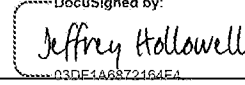
ASSIGNOR(S) agree that this document shall bind and inure to the benefit of the heirs, assigns and legal representatives of both ASSIGNOR(S) and ASSIGNEE.

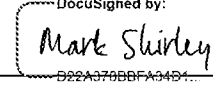
Date: 08/15/22 Signature: 
Antowan Zyada

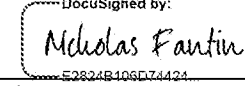
Date: 08/23/22 Signature: 
Kyoung Pyo Ha

Date: 08/08/22 Signature: 
Shengrong Zhu

Date: 08/08/22 Signature: 
Philip Zoldak

Date: 08/08/22 Signature: 
Jeffrey Hollowell

Date: 08/15/22 Signature: 
Mark Shirley

Date: 08/08/22 Signature: 
Nicholas Fantin