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<b>Application Data Sheet 37 CFR 1.76</b>		Attorney Docket Number	009489.00033US
		Application Number	
Title of Invention	FLEXIBLE SOLID ELECTROLYTE MEMBRANE FOR ALL-SOLID-STATE BATTERY, ALL-SOLID-STATE BATTERY COMPRISING THE SAME, AND MANUFACTURING METHOD THEREOF		
<p>The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.</p> <p>This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.</p>			

**Secrecy Order 37 CFR 5.2:**

<input type="checkbox"/>	Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)
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**Inventor Information:**

<b>Inventor 1</b>					<a href="#">Remove</a>
<b>Legal Name</b>					
<b>Prefix</b>	<b>Given Name</b>	<b>Middle Name</b>	<b>Family Name</b>	<b>Suffix</b>	
	Hoon		Seok		
<b>Residence Information (Select One)</b> <input type="radio"/> US Residency <input checked="" type="radio"/> Non US Residency <input type="radio"/> Active US Military Service					
<b>City</b>	Suwon-Si, Gyeonggi-Do		<b>Country of Residence <sup>i</sup></b>	KR	
<b>Mailing Address of Inventor:</b>					
<b>Address 1</b>		504-1401, 25 Yeongtong-ro			
<b>Address 2</b>		290beon-gil, Yeongtong-gu			
<b>City</b>	Suwon-Si, Gyeonggi-Do		<b>State/Province</b>		
<b>Postal Code</b>	16697		<b>Country <sup>i</sup></b>	KR	
<b>Inventor 2</b>					<a href="#">Remove</a>
<b>Legal Name</b>					
<b>Prefix</b>	<b>Given Name</b>	<b>Middle Name</b>	<b>Family Name</b>	<b>Suffix</b>	
	Yeong Jun		Cheon		
<b>Residence Information (Select One)</b> <input type="radio"/> US Residency <input checked="" type="radio"/> Non US Residency <input type="radio"/> Active US Military Service					
<b>City</b>	Daegu		<b>Country of Residence <sup>i</sup></b>	KR	
<b>Mailing Address of Inventor:</b>					
<b>Address 1</b>		6-801, 274 Dongdaegu-ro, Suseong-gu			
<b>Address 2</b>					
<b>City</b>	Daegu		<b>State/Province</b>		
<b>Postal Code</b>	42099		<b>Country <sup>i</sup></b>	KR	
<b>Inventor 3</b>					<a href="#">Remove</a>
<b>Legal Name</b>					

<b>Application Data Sheet 37 CFR 1.76</b>		Attorney Docket Number	009489.00033\US
		Application Number	
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Prefix	Given Name	Middle Name	Family Name	Suffix
	Hong Seok		Min	
Residence Information (Select One) <input type="radio"/> US Residency <input checked="" type="radio"/> Non US Residency <input type="radio"/> Active US Military Service				
City	Yongin-Si, Gyeonggi-Do	Country of Residence <sup>i</sup>	KR	

<b>Mailing Address of Inventor:</b>				
Address 1	504-101, 107 Seongbok 1-ro, Suji-gu			
Address 2				
City	Yongin-Si, Gyeonggi-Do	State/Province		
Postal Code	16855	Country <sup>i</sup>	KR	
Inventor 4				<button>Remove</button>
Legal Name				

Prefix	Given Name	Middle Name	Family Name	Suffix
	Sang Young		Lee	
Residence Information (Select One) <input type="radio"/> US Residency <input checked="" type="radio"/> Non US Residency <input type="radio"/> Active US Military Service				
City	Ulsan	Country of Residence <sup>i</sup>	KR	

<b>Mailing Address of Inventor:</b>				
Address 1	50, UNIST-gil, Eonyang-eup, Ulju-gun			
Address 2				
City	Ulsan	State/Province		
Postal Code	44919	Country <sup>i</sup>	KR	
Inventor 5				<button>Remove</button>
Legal Name				

Prefix	Given Name	Middle Name	Family Name	Suffix
	Kyeong Seok		Oh	
Residence Information (Select One) <input type="radio"/> US Residency <input checked="" type="radio"/> Non US Residency <input type="radio"/> Active US Military Service				
City	Ulsan	Country of Residence <sup>i</sup>	KR	

<b>Mailing Address of Inventor:</b>				
Address 1	50, UNIST-gil, Eonyang-eup, Ulju-gun			
Address 2				
City	Ulsan	State/Province		
Postal Code	44919	Country <sup>i</sup>	KR	

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<b>Inventor 6</b>					<input type="button" value="Remove"/>
<b>Legal Name</b>					
<b>Prefix</b>	<b>Given Name</b>	<b>Middle Name</b>	<b>Family Name</b>	<b>Suffix</b>	
	Yong Hyeok		Lee		
<b>Residence Information (Select One)</b> <input type="radio"/> US Residency <input checked="" type="radio"/> Non US Residency <input type="radio"/> Active US Military Service					
<b>City</b>	Ulsan	<b>Country of Residence<sup>i</sup></b>	KR		
<b>Mailing Address of Inventor:</b>					
<b>Address 1</b>	50, UNIST-gil, Eonyang-eup, Ulju-gun				
<b>Address 2</b>					
<b>City</b>	Ulsan	<b>State/Province</b>			
<b>Postal Code</b>	44919	<b>Country<sup>i</sup></b>	KR		
All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the <b>Add</b> button. <input type="button" value="Add"/>					

## Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below. For further information see 37 CFR 1.33(a).			
<input type="checkbox"/> An Address is being provided for the correspondence Information of this application.			
<b>Customer Number</b>	188419		
<b>Email Address</b>		<input type="button" value="Add Email"/>	<input type="button" value="Remove Email"/>

## Application Information:

<b>Title of the Invention</b>	FLEXIBLE SOLID ELECTROLYTE MEMBRANE FOR ALL-SOLID-STATE BATTERY, ALL-SOLID-STATE BATTERY COMPRISING THE SAME, AND MANUFACTURING METHOD THEREOF		
<b>Attorney Docket Number</b>	009489.00033\US	<b>Small Entity Status Claimed</b>	<input type="checkbox"/>
<b>Application Type</b>	Nonprovisional		
<b>Subject Matter</b>	Utility		
<b>Total Number of Drawing Sheets (if any)</b>	12	<b>Suggested Figure for Publication (if any)</b>	

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## Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country

## Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

## Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32). Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	<input checked="" type="radio"/> Customer Number	<input type="radio"/> US Patent Practitioner	<input type="radio"/> Limited Recognition (37 CFR 11.9)
Customer Number	188419		

## Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.

When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status		Remove	
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)

Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the **Add** button.



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## Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)<sup>i</sup> the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

			<a href="#">Remove</a>
Application Number	Country <sup>i</sup>	Filing Date (YYYY-MM-DD)	Access Code <sup>i</sup> (if applicable)
10-2022-0093978	KR	2022-07-28	FD8A
Additional Foreign Priority Data may be generated within this form by selecting the <b>Add</b> button.			

## Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

<input type="checkbox"/> This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013. NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.
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## Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

**NOTE:** This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

### 1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

**A. Priority Document Exchange (PDX)** - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

**B. Search Results from U.S. Application to EPO** - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

### 2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

☐ A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

☐ B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

**NOTE:** Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

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Title of Invention	FLEXIBLE SOLID ELECTROLYTE MEMBRANE FOR ALL-SOLID-STATE BATTERY, ALL-SOLID-STATE BATTERY COMPRISING THE SAME, AND MANUFACTURING METHOD THEREOF	

## Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.								
<b>Applicant 1</b>								
If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.								
<div>Clear</div>								
<input checked="" type="radio"/> Assignee	<input type="radio"/> Legal Representative under 35 U.S.C. 117	<input type="radio"/> Joint Inventor						
<input type="radio"/> Person to whom the inventor is obligated to assign.	<input type="radio"/> Person who shows sufficient proprietary interest							
If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:								
Name of the Deceased or Legally Incapacitated Inventor:								
If the Applicant is an Organization check here. <input checked="" type="checkbox"/>								
Organization Name	Hyundai Motor Company							
<b>Mailing Address Information For Applicant:</b>								
Address 1	12, Heolleung-ro, Seocho-gu							
Address 2								
City	Seoul	State/Province						
Country	KR	Postal Code	06797					
Phone Number		Fax Number						
Email Address								
Additional Applicant Data may be generated within this form by selecting the Add button.								

<b>Application Data Sheet 37 CFR 1.76</b>	Attorney Docket Number	009489.00033\US
	Application Number	
Title of Invention	FLEXIBLE SOLID ELECTROLYTE MEMBRANE FOR ALL-SOLID-STATE BATTERY, ALL-SOLID-STATE BATTERY COMPRISING THE SAME, AND MANUFACTURING METHOD THEREOF	

**Applicant 2**

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

<input checked="" type="radio"/> Assignee	<input type="radio"/> Legal Representative under 35 U.S.C. 117	<input type="radio"/> Joint Inventor
<input type="radio"/> Person to whom the inventor is obligated to assign.	<input type="radio"/> Person who shows sufficient proprietary interest	

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor:

If the Applicant is an Organization check here. ☒

Organization Name

Kia Corporation

**Mailing Address Information For Applicant:**

Address 1	12, Heolleung-ro, Seocho-gu		
Address 2			
City	Seoul	State/Province	
Country	KR	Postal Code	06797
Phone Number		Fax Number	
Email Address			

Additional Applicant Data may be generated within this form by selecting the Add button.

**Applicant 3**

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

<input checked="" type="radio"/> Assignee	<input type="radio"/> Legal Representative under 35 U.S.C. 117	<input type="radio"/> Joint Inventor
<input type="radio"/> Person to whom the inventor is obligated to assign.	<input type="radio"/> Person who shows sufficient proprietary interest	

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor:

<b>Application Data Sheet 37 CFR 1.76</b>		Attorney Docket Number	009489.00033\US
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If the Applicant is an Organization check here. <input checked="" type="checkbox"/>			
Organization Name	Ulsan National Institute of Science and Technology		
<b>Mailing Address Information For Applicant:</b>			
Address 1	50, UNIST-gil, Eonyang-eup, Ulju-gun		
Address 2			
City	Ulsan	State/Province	
Country	KR	Postal Code	44919
Phone Number		Fax Number	
Email Address			
Additional Applicant Data may be generated within this form by selecting the Add button.			

## Assignee Information including Non-Applicant Assignee Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

<b>Assignee 1</b>				
Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.				
If the Assignee or Non-Applicant Assignee is an Organization check here. <input type="checkbox"/>				
Prefix	Given Name	Middle Name	Family Name	Suffix

<b>Application Data Sheet 37 CFR 1.76</b>		Attorney Docket Number	009489.00033\US
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Title of Invention	FLEXIBLE SOLID ELECTROLYTE MEMBRANE FOR ALL-SOLID-STATE BATTERY, ALL-SOLID-STATE BATTERY COMPRISING THE SAME, AND MANUFACTURING METHOD THEREOF		

<b>Mailing Address Information For Assignee including Non-Applicant Assignee:</b>			
Address 1			
Address 2			
City		State/Province	
Country <sup>i</sup>		Postal Code	
Phone Number		Fax Number	
Email Address			
Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button.			

## Signature:

**NOTE:** This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). **However, if this Application Data Sheet is submitted with the INITIAL filing of the application and either box A or B is not checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c).**

This Application Data Sheet **must** be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

Signature	/Dongil Moon/		Date (YYYY-MM-DD)	2022-12-21	
First Name	Dongil	Last Name	Moon	Registration Number	74,793
Additional Signature may be generated within this form by selecting the Add button.					

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

# Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.



<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		
	Filing Date		
	First Named Inventor	Hoon Seok	
	Art Unit	N/A	
	Examiner Name	Not Yet Assigned	
	Attorney Docket Number	009489.00033US	

U.S.PATENTS						
Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Patent citation information please click the Add button.

U.S.PATENT APPLICATION PUBLICATIONS						
Examiner Initial*	Cite No	Publication Number	Kind Code <sup>1</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20200144661	A1	2020-05-07	OGAWA et al.	
	2	20210143413	A1	2021-05-13	Lee, Minsuk	
	3	20190372149	A1	2019-12-05	CHO et al.	

If you wish to add additional U.S. Published Application citation information please click the Add button.

FOREIGN PATENT DOCUMENTS								
Examiner Initial*	Cite No	Foreign Document Number <sup>3</sup>	Country Code <sup>2</sup>	Kind Code <sup>4</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T <sup>5</sup>
	1	10-2021-0056779	KR	A	2021-05-20	Samsung Sdi Co Ltd		<input type="checkbox"/>

# **INFORMATION DISCLOSURE STATEMENT BY APPLICANT** ( Not for submission under 37 CFR 1.99)

Application Number		
Filing Date		
First Named Inventor	Hoon Seok	
Art Unit	N/A	
Examiner Name	Not Yet Assigned	
Attorney Docket Number	009489.00033\US	

	2	10- 2020-0041165	KR	A	2020-04-21	Lg Chemical Ltd		<input type="checkbox"/>
	3	3553868	EP	A1	2019-10-16	Lg Chem, Ltd		<input type="checkbox"/>
	4	3843193	EP	A1	2021-06-30	Lg Chem, Ltd		<input type="checkbox"/>
	5	202077488	JP	A	2020-05-21	Honda Motor Co Ltd		<input type="checkbox"/>

If you wish to add additional Foreign Patent Document citation information please click the Add button

## **NON-PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>5</sup>
	1	Kim et al "Inverse Opal-Inspired, Nanoscaffold Battery Separators: A New Membrane Opportunity for High-Performance Energy Storage Systems", American Chemical Society, Nano Letters, pages 4438-4448	<input type="checkbox"/>

If you wish to add additional non-patent literature document citation information please click the Add button

## **EXAMINER SIGNATURE**

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> See Kind Codes of USPTO Patent Documents at [www.USPTO.GOV](http://www.USPTO.GOV) or MPEP 901.04. <sup>2</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>3</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>4</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>5</sup> Applicant is to place a check mark here if English language translation is attached.

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

Application Number	
Filing Date	
First Named Inventor	Hoon Seok
Art Unit	N/A
Examiner Name	Not Yet Assigned
Attorney Docket Number	009489.00033\US

**CERTIFICATION STATEMENT**

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

**OR**

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☐ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

**SIGNATURE**

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Dongil Moon/	Date (YYYY-MM-DD)	2022-12-21
Name/Print	Dongil Moon	Registration Number	74,793

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

## Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

**COMBINED DECLARATION (37 CFR 1.63) AND ASSIGNMENT FOR UTILITY OR DESIGN  
APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)**

Title of  
Invention

**FLEXIBLE SOLID ELECTROLYTE MEMBRANE FOR ALL-SOLID-STATE  
BATTERY, ALL-SOLID-STATE BATTERY COMPRISING THE SAME, AND  
MANUFACTURING METHOD THEREOF**

As the below named inventor(s), I/We hereby declare that:

This declaration is directed to: ☒ The attached application, or

☐ United States application or PCT international application number \_\_\_\_\_  
filed on \_\_\_\_\_.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

**ASSIGNMENT**

WHEREAS, the undersigned, (1) Hoon SEOK, residing in 504-1401, 25 Yeongtong-ro 290beon-gil, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16697, Republic of Korea,

(2) Yeong Jun CHEON, residing in 6-801, 274 Dongdaegu-ro, Suseong-gu, Daegu, 42099, Republic of Korea,

(3) Hong Seok MIN, residing in 504-101, 107 Seongbok 1-ro, Suji-gu, Yongin-si, Gyeonggi-do, 16855, Republic of Korea,

(4) Sang Young LEE, residing in 50, UNIST-gil, Eonyang-eup, Ulju-gun, Ulsan, 44919, Republic of Korea,

(5) Kyeong Seok OH, residing in 50, UNIST-gil, Eonyang-eup, Ulju-gun, Ulsan, 44919, Republic of Korea,

and (6) Yong Hyeok LEE, residing in 50, UNIST-gil, Eonyang-eup, Ulju-gun, Ulsan, 44919, Republic of Korea,

(hereinafter referred to as "Assignor(s)") have invented the above invention. If the following lines are blank, the above application was filed on even date herewith, otherwise, to comply with 37 C.F.R. §3.21 for recordal of this assignment, I/We, assignor(s) below, hereby authorize the attorneys for Hyundai Motor Company and Kia Corporation to insert the filing date and application number below after they become known and prior to filing the recordation.

U.S. Application No. 18/085,996, filed Dec. 21, 2022.

WHEREAS, HYUNDAI MOTOR COMPANY, a corporation organized under the laws of Republic of Korea, having a place of business at 12, Heolleung-ro, Seocho-gu, Seoul 06797, Republic of Korea, KIA CORPORATION, a corporation organized under the laws of Republic of Korea, having a place of business at 12, Heolleung-ro, Seocho-gu, Seoul 06797, Republic of Korea, and Ulsan National Institute of Science and Technology, a foundation organized under the laws of Republic of Korea, having a place of business at 50, UNIST-gil, Eonyang-eup, Ulju-gun, Ulsan, 44919, Republic of Korea, Republic of Korea ("Assignee(s)"), are desirous of acquiring the entire right, title and interest in and to the aforesaid inventions and in and to all applications and Letters Patent therefor granted in the United States of America, and in any and all countries foreign thereto:

NOW, THEREFORE, TO WHOM IT MAY CONCERN, be it known that, for good and valuable consideration, including salary or



payment for the making of inventions, or employee benefits, the receipt and sufficiency of which is hereby acknowledged, I/We said Assignor(s), by these presents do sell, assign and transfer unto said Assignee(s), its successors, assigns and legal representatives, the full and exclusive right, title and interest for the territory of the United States of America and all countries foreign thereto, and throughout the world and in space, (including the right to apply for Letters Patent in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), in and to said inventions and in and to all applications and Letters Patent granted therefor, and all non-provisionals, divisionals, reissues, reexaminations, continuations, continuation-in-parts and extensions thereof, and in and to all copyrights, trademarks with their associated goodwill, trade secrets, confidential information, and compilations, necessary or useful to make, use, or sell the inventions. Said Assignor(s) hereby authorize and request the Commissioner of Patents, and any official whose duty it is to issue patents, to issue all Letters Patent on said inventions or resulting therefrom to said Assignee(s), or its successors and assigns, as assignee of the entire right, title and interest. Said Assignor(s) represent and warrant that said Assignor(s) have full right to agree to, execute, and deliver this assignment. Said Assignor(s) agree that said Assignor(s) will without further consideration, but at the expense of Assignee(s), communicate to said Assignee(s), or its successors, assigns, or nominees, any and all facts known to me regarding said inventions whenever requested, and that said Assignor(s) will execute all non-provisional, divisional, reissue, reexamination, continuation and continuation-in-part applications, testify in any legal proceedings, sign all lawful papers, make all rightful oaths, and generally do everything reasonable for said Assignee(s), its successors, assigns, and nominees, to obtain and enforce proper patent protection for said inventions in all countries.

**WARNING:**

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

**LEGAL NAME OF INVENTOR(S)**

(1) Inventor: Hoon SEOK Date: 2022. 12. 14  
Signature: / Hoon SEOK

(2) Inventor: Yeong Jun CHEON Date: 2022. 12. 07.  
Signature: / YEONG JUN CHEON

(3) Inventor: Hong Seok MIN Date: 2022. 12. 14.  
Signature: / HONG SEOK MIN

(4) Inventor: <u>Sang Young LEE</u>	Date: <u>2022.12.16</u>
Signature: <u>/ syhee</u>	<u>/</u>
(5) Inventor: <u>Kyeong Seok OH</u>	Date: <u>2022.12.16</u>
Signature: <u>/ Kyeongseok Oh</u>	<u>/</u>
(6) Inventor: <u>Yong Hyeok LEE</u>	Date: <u>2022.12.16</u>
Signature: <u>/ Yonghyeok Lee</u>	<u>/</u>





## UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND  
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

DECEMBER 23, 2022

PTAS

BANNER & WITCOFF, LTD.  
1100 13TH ST. NW  
STE 1200  
WASHINGTON, DC 20005

**507659981**

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RECORDATION DATE: 12/21/2022

REEL/FRAME: 062172/0566

NUMBER OF PAGES: 5

BRIEF: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

DOCKET NUMBER: 009489.00033\US

ASSIGNOR:

SEOK, HOON

DOC DATE: 12/14/2022

ASSIGNOR:

CHEON, YEONG JUN

DOC DATE: 12/07/2022

ASSIGNOR:

MIN, HONG SEOK

DOC DATE: 12/14/2022

ASSIGNOR:

LEE, SANG YOUNG

DOC DATE: 12/16/2022

ASSIGNOR:

OH, KYEONG SEOK

DOC DATE: 12/16/2022

ASSIGNOR:

LEE, YONG HYEOK

DOC DATE: 12/16/2022

ASSIGNEE:

HYUNDAI MOTOR COMPANY  
12, HEOLLEUNG-RO, SEOCHO-GU  
SEOUL, KOREA, REPUBLIC OF 06797

ASSIGNEE:

KIA CORPORATION  
12, HEOLLEUNG-RO, SEOCHO-GU  
SEOUL, KOREA, REPUBLIC OF 06797

ASSIGNEE:

ULSAN NATIONAL INSTITUTE OF SCIENCE  
AND TECHNOLOGY  
50, UNIST-GIL, EONYANG-EUP, ULJU-GUN  
ULSAN, KOREA, REPUBLIC OF 44919

APPLICATION NUMBER: 18085996

FILING DATE:

PATENT NUMBER:

ISSUE DATE:

TITLE: FLEXIBLE SOLID ELECTROLYTE MEMBRANE FOR ALL-SOLID-STATE BATTERY,  
ALL-SOLID-STATE BATTERY COMPRISING THE SAME, AND MANUFACTURING  
METHOD THEREOF

ASSIGNMENT RECORDATION BRANCH  
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## TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA/82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

Application Number	Not Yet Assigned
Filing Date	Concurrently Herewith
First Named Inventor	Hoon Seok
Title	<b>FLEXIBLE SOLID ELECTROLYTE MEMBRANE FOR ALL-SOLID-STATE BATTERY, ALL-SOLID-STATE BATTERY COMPRISING THE SAME, AND MANUFACTURING METHOD THEREOF</b>
Art Unit	N/A
Examiner Name	Not Yet Assigned
Attorney Docket Number	009489.00033\US

### SIGNATURE of Applicant or Patent Practitioner

Signature	/Dongil Moon/	Date (Optional)	
Name	Dongil Moon	Registration Number	74,793
Title (if Applicant is a juristic entity)			
Applicant Name (if Applicant is a juristic entity)			

**NOTE:** This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.

☐

\*Total of 1 forms are submitted.

## POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number

Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)



I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above:

188419

OR



I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:



The address associated with the above-mentioned Customer Number

OR



The address associated with Customer Number:

OR



Firm or  
Individual Name

Address

City

State

Zip

Country

Telephone

Email

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

Hyundai Motor Company



Inventor or Joint Inventor (title not required below)



Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)



Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)



Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

### SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature

YONGSEOK KWON

Date (Optional)

Name

YONGSEOK KWON

Title

General Manager, Hyundai Motor Company

**NOTE:** Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ Total of

forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

## POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

☒ I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above:

188419

OR

☐ I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

☒ The address associated with the above-mentioned Customer Number

OR

☐ The address associated with Customer Number:

OR

☐ Firm or Individual Name

Address

City

State

Zip

Country

Telephone

Email

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

Kia Corporation

- ☐ Inventor or Joint Inventor (title not required below)
- ☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)
- ☒ Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)
- ☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

### SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature YONG SEOK KWON

Date (Optional)

Name YONGSEOK KWON

Title General Manager, Kia Corporation

**NOTE:** Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ Total of forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

## POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

☒ I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above:

188419

OR

☐ I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

☒ The address associated with the above-mentioned Customer Number

OR

☐ The address associated with Customer Number:

OR

☐ Firm or Individual Name

Address

City

State

Zip

Country

Telephone

Email

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

UNIST(ULSAN NATIONAL INSTITUTE OF SCIENCE AND TECHNOLOGY)

- ☐ Inventor or Joint Inventor (title not required below)
- ☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)
- ☒ Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)
- ☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

### SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature

Date (Optional)

Name

Title

**NOTE:** Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ Total of forms are submitted.

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<b>EFS ID:</b>	47253627
<b>Application Number:</b>	18085996
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	1095
<b>Title of Invention:</b>	FLEXIBLE SOLID ELECTROLYTE MEMBRANE FOR ALL-SOLID-STATE BATTERY, ALL-SOLID-STATE BATTERY COMPRISING THE SAME, AND MANUFACTURING METHOD THEREOF
<b>First Named Inventor/Applicant Name:</b>	Hoon Seok
<b>Customer Number:</b>	188419
<b>Filer:</b>	Dongil Moon/MARIAMA SEASAY
<b>Filer Authorized By:</b>	Dongil Moon
<b>Attorney Docket Number:</b>	009489.00033\US
<b>Receipt Date:</b>	21-DEC-2022
<b>Filing Date:</b>	
<b>Time Stamp:</b>	14:45:41
<b>Application Type:</b>	Utility under 35 USC 111(a)

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 37 CFR 1.20 (Post Issuance fees)  
 37 CFR 1.21 (Miscellaneous fees and charges)

## File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Application Data Sheet	Application_Data_Sheet_Fillable_PDF_22336336.pdf	2226003	no	11
			a5a322a75204da85b4db79303ad77fb9bad208b0		
Warnings:					
Information:					
2		US4806_Final_Specification_009489_22337162.pdf	125099	yes	26
			15b35dc4b05d411b1625249c5f4987b52ebb6398		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Specification		1	21	
	Claims		22	25	
	Abstract		26	26	
Warnings:					
Information:					
3	Drawings-only black and white line drawings	US4806_Final_Drawings_009489_22337163.pdf	1085415	no	12
			7be1cf8ff62fe524e7c8a0b4dd7aa8de1a20e754		
Warnings:					
Information:					
4	Oath or Declaration filed	ASSDEC_22323550.PDF	2984740	no	3
			f2c005042e2498420c3873f9d94700c5229e0a47		
Warnings:					
Information:					
5	Power of Attorney	POA_or_Authorization_of_Agent_22336388.pdf	2608175	no	4
			8d67a0622b1ab552f5bbc7713911e2a38f7f9161		

Warnings:					
Information:					
6	Information Disclosure Statement (IDS) Form (SB08)	Information_Disclosure_Statement_Fillable_PDF_22336523.pdf	1263689	no	4
			84d7f4e5a34420b2aea23f5e9510e96dfbf9ddba		
Warnings:					
Information:					
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Information:					
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Warnings:					
Information:					
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10	Non Patent Literature	Nano_Lett_2014_14_4438-4448_22336518.pdf	1558440	no	11
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Warnings:					
Information:					
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Warnings:					
Information:					

13	Fee Worksheet (SB06)	fee-info.pdf	43894	no	2
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