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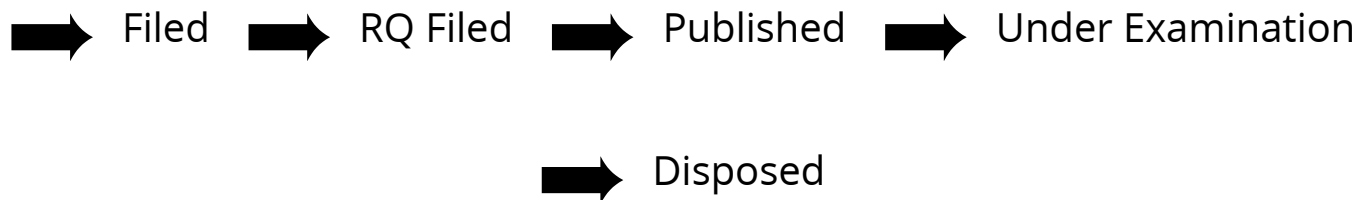
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#### Application Details

APPLICATION NUMBER	202341014767
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	06/03/2023
APPLICANT NAME	AVINASHILINGAM INSTITUTE FOR HOME SCIENCE AND HIGHER EDUCATION FOR WOMEN
TITLE OF INVENTION	A PROCESS OF PREPARATION OF SOLID STATE LITHIUM ION CONDUCTING ELECTROLYTE MEMBRANE
FIELD OF INVENTION	CHEMICAL
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ADDITIONAL-EMAIL (As Per Record)	
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	06/03/2023
PUBLICATION DATE (U/S 11A)	17/03/2023

## Application Status

APPLICATION STATUS

**FER Issued, Reply not Filed**[View Documents](#)

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(12) PATENT APPLICATION PUBLICATION

(21) Application No. 202341014767 A

(19) INDIA

(22) Date of filing of Application : 06/03/2023

(43) Publication Date : 17/03/2023

(54) Title of the invention : A PROCESS OF PREPARATION OF SOLID STATE LITHIUM ION CONDUCTING ELECTROLYTE MEMBRANE

(51) International classification : H01M 045250, H01M 100520, H01M 100525, H01M 100562, H01M 100585  
(86) International Application No : PCT//  
Filing Date : 01/01/1900  
(87) International Publication No : NA  
(61) Patent of Addition to Application Number : NA  
Filing Date : NA  
(62) Divisional to Application Number : NA  
Filing Date : NA

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(57) Abstract :

TITLE: A PROCESS OF PREPARATION OF SOLID STATE LITHIUM ION CONDUCTING ELECTROLYTE MEMBRANE  
APPLICANT: AVINASHILINGAM INSTITUTE FOR HOME SCIENCE AND HIGHER EDUCATION FOR WOMEN

ABSTRACT The present invention discloses a process of preparation of biodegradable, environmentally benign biopolymer based solid state Lithium ion conducting electrolyte membrane which exhibits highest conductivity without any problem of flammability, leakage and high self-discharge, for use in batteries of small gadgets by solution casting technique. The process of the present invention characterized in mixing Biopolymer Pectin, salt of Lithium trifluoromethane sulfonate (LiTf) and ionic liquids 1,2-dimethoxyethane (DME) and 1,3-dioxalane (DOL) of predetermined ratio and stirring mechanically to form a homogenous mixture and finally pouring the homogenous mixture in a shallow container followed by drying to form Lithium ion conducting electrolyte membrane. The present invention also discloses a biodegradable, environmentally benign biopolymer based solid state Lithium ion conducting electrolyte membrane which exhibits highest conductivity without any problem of flammability, leakage and high self-discharge, for use in batteries of small gadgets prepared by the process as described above.

No. of Pages : 26 No. of Claims : 5