(19) INDIA

(22) Date of filing of Application :17/11/2020 (43) Publication Date : 20/05/2022

(54) Title of the invention: A NOVEL PROCESS FOR RECYCLING OF LITHIUM-ION BATTERIES

(51) International classification	:H01M0010052500, C22B0007000000, H01M0010540000, C22B0026120000, C22B0001000000	(71)Name of Applicant: 1)INDIAN INSTITUTE OF TECHNOLOGY BHUBANESWAR Address of Applicant: Indian Institute of Technology Bhubaneswar Samantapuri Bhubaneswar Orissa India.
(31) Priority Document No	:NA	(72)Name of Inventor:
(32) Priority Date	:NA	1)Singh, Gurudev
(33) Name of priority country	:NA	2)Patnaik, Sarthak
(86) International Application No	:NA	3)Ahir, Vinay
Filing Date	:NA	4)Sarma Sedai, Yogesh
(87) International Publication No	: NA	5)Pandey, Ashwani Kumar
(61) Patent of Addition to Application Number Filing Date	:NA :NA	6)Dr. Pati, Soobhankar
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract:

The present invention relates to the development of a novel technique for the recycling of Lithium-Ion batteries. In the process, the same pre-processing steps of recycling as followed by prevailing state of the art are used but the main recycling part is novel. Here the cathodic material is directly recovered instead of extracting the individual elemental products. This reduces the complexity of the recycling process and thus increases efficiency. The process is very convenient as there is minimal energy addition as compared to the conventional recycling process.

No. of Pages: 27 No. of Claims: 7