Lithium battery screening patent

Could lithium be patented as a drug?
As a natural salt that appears on the periodic table of the elements,lithium could never be patented as a drug. It would never be a money-maker for the drug companies. Still today,some argue (with good reason) that lithium is underprescribed in the U.S. in favor of the newer,more profitable mood stabilizers and neuroleptics.

Can X-ray computed tomography be used to screen retired batteries?
To address this issue of low efficiency for battery screening,scanned X-ray Computed Tomography (CT) cross-sectional images in combination with a computational image recognition algorithm have been employed to explore the gradient screeningof these retired batteries.

Which electrolytes are suitable for lithium ion toxicity?
Unique capability: supramolecular ionic liquid /polymer /lithium salt electrolytes with very favorable ion conductivity (up to 2.4 × 10 -3 S/cm) and high boiling point (>438 °C),along with corresponding cells with lithium metal negative electrodes. Leap of faith: the toxicity of triphenylene-containing electrolytes will be acceptable.

What is a solid-state / semi-solid Li-ion battery technology decision tree?
Comprehension of solid-state / semi-solid Li-ion battery technology decision trees allows for the identification of promising product development directions that have not yet been explored.

Can a lithium ion battery be anode-free?
Although Li metal processing patents have been filed by CATL,employment of an 'anode-free' cell design is also a possibility. Positive electrode: NMC9½½ or NMC811 /conductive carbon /PVDF (96 : 2 : 2 by mass),see 'Lithium-ion Battery High-energy Cathode Innovation &Patent Review'. Design: stacked multilayer,prismatic cells.

Can CT scores be used to sort retired batteries?
Based on the Structural Similarity Index Measure (SSIM) algorithm with 2000 CT images per battery,the calculated CT scores are closely correlated with their internal resistance and capacity,indicating the feasibilityof CT scores to sort retired batteries.

A lithium-ion battery and sieving technology, applied in the direction of measuring electricity, measuring electrical variables, instruments, etc., can solve the problems of large influence of environmental factors, high precision requirements, and ...

A lithium ion battery screening method comprises: discharging multiple lithium ion batteries to a ...

A lithium ion battery screening method comprises: discharging multiple lithium ion batteries to a discharge

cut-off voltage V 0 with a constant current I 1 ; laying the lithium ion batteries...

electrolytes for lithium-ion batteries, (2) worldwide patent publication distribution in this area of technology, (3) determining the main technical concept of the related patents, and (4) finding ...

The invention belongs to the field of battery recovery, and particularly discloses a green and environment-friendly method for recycling waste lithium batteries. The method for recycling the waste lithium batteries comprises the steps of lithium battery pretreatment, crushing and drying, battery fragment separation and separator treatment.

The invention discloses a screening method of lithium ion batteries, which comprises the following steps of carrying out charge and discharge tests on the batteries at normal temperature,...

US8616475B1 US13/920,529 US201313920529A US8616475B1 US 8616475 B1 US8616475 B1 US 8616475B1 US 201313920529 A US201313920529 A US 201313920529A US 8616475 B1 US8616475 B1 US 8616475B1 Authority US United States Prior art keywords lithium cathode material slurry carbon ion batteries Prior art date 2013-06-18 Legal status (The legal status is ...

Lithium-Ion Battery Screening by K-Means with DBSCAN for Denoising. by Yudong Wang, Jie Tan, Zhenjie Liu, Allah Ditta 1 Institute of Automation, Chinese Academy of Sciences, Beijing, 100190, China. 2 School of Artificial Intelligence, University of Chinese Academy of Sciences, Beijing, 100049, China. 3 University of Education, Township, College ...

The naive bayes classifier (NBC) takes the peak coordinates of the IC curve as input, which obtains different battery capacity types. The screening accuracy can reach 96.9%, which indicates the proposed screening method can achieve the consistent screening of retired batteries.

The invention discloses a screening method of lithium ion batteries, which comprises the following steps of carrying out charge and discharge tests on the batteries at normal temperature, screening according to discharge capacity Q, a capacity screening coefficient k, a median voltage screening coefficient l and a constant current charge ratio screening coefficient m of single ...

In this paper, we provide an effective approach for battery screening. First, we apply interpolation on DVCs and give a method to transform them into slope sequences. Then, we use density-based spatial clustering of applications with noise (DBSCAN) for denoising and treat the remaining data as input to the K-means algorithm for ...

6 ???· From 2010 to 2016, while working at a major battery materials manufacturer in Switzerland, he was a co-inventor of 7 patent families related to lithium-ion batteries. He was also in charge of a collaboration with the Paul ...

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CROSS-REFERENCE TO RELATED APPLICATIONS. The present invention claims priority to Chinese Patent Application No. 202210985717.0 filed on Aug. 17, 2022 to the China National Intellectual Property Administration, entitled "METHOD AND SYSTEM FOR EVALUATING POWER BATTERY AGING STATE AND SCREENING RETIREMENT", the ...

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The Chinese Invention Patent Application (202010610610.9) carried out multi-level screening by measured battery capacity, internal resistance and temperature, but the test time of the whole screening process is too long, especially that the acquisition of the capacity index requires a complete charging process, and the acquisition of the temperature parameter will increase the ...

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