Foreign lithium titanate battery patent

Lithium titanate and lithium cells and batteries including the same US8168330B2 (en) * 2006-04-11: 2012-05-01: Enerdel, Inc. Lithium titanate cell with reduced gassing US7541016B2 (en) * 2006-04-11: 2009-06-02: Enerdel, Inc. Lithium titanate and method of forming the same US8076030B2 (en) 2006-06-05

A lithium-ion battery includes a positive electrode comprising a current collector and a first active material comprising LiCoO 2 and a negative electrode comprising a current collector, a second...

European Search Report dated on Nov. 5, 2014 by European Patent Office. (Continued) Primary Examiner -- Steven Bos (74) Attorney, Agent, or Firm -- Daniel R. Collopy (57) ABSTRACT The present invention is to provide a lithium titanate (LTO) material for ...

A lithium titanate (LTO) battery is a rechargeable lithium-ion battery that replaces carbon found on the anode of a typical lithium-ion battery with lithium-titanate. This increases the surface area of the anode to about 100 square meters per ...

This selection of patents covers lithium-ion battery recycling and was published in the December 2023 issue of Light Metal Age. ... (NMC), lithium-nickel-cobalt-aluminum oxide (NCA), lithium-manganese oxide (LMO), ...

European Search Report dated on Nov. 5, 2014 by European Patent Office. (Continued) Primary Examiner -- Steven Bos (74) Attorney, Agent, or Firm -- Daniel R. Collopy (57) ABSTRACT ...

Justia Patents Nickel Component Is Active Material US Patent for Lithium titanate cell Patent (Patent # 10,833,366) Lithium titanate cell . Apr 30, 2013 - Altairnano, Inc. The embodiment relates to the field of electrolyte selection in lithium ion cells which may employ Li4Ti5O12 compounds as negative electrode material and LiPF6 as the ionic salt component ...

Japanese patent application number 2000-302547 teaches a method to make lithium titanates by calcining a mixture of a titanium and a lithium compound following a multi-step heating and...

The present invention relates to a method of producing high performance lithium titanate Li 4 Ti 5 O 12 (LTO) anode for lithium ion battery applications, more especially a process of producing LTO using precursors of TiO 2 and Li 2 CO 3 along with carbon by making use of Horizontal attrition milling technique which produces highly crystalline ...

Lithium titanate, presented by the formula, Li 4 Ti 5 O 12 (termed Li 4/3 Ti 5/3 O 4 bellow), is used as a material for secondary lithium batteries. As processes for production of these compounds, wet methods and

dry methods are known (for example, Japanese Patent Application, First Publication, No. 309727/97, and Journal of Low Temperature Physics, Vol. 25, p. 145, 1976).

3. Lithium titanate battery packs are different from conventional lithium-ion batteries. At present, lithium titanate batteries produced at home and abroad will often see a small amount of gas generated in the single cells of the soft pack after being put into use in groups for a period of time. These gases are different from those produced ...

An electrochemical cell includes an anode that includes silicon, a conductive carbon, a lithium titanate, lithium metal, or a combination of any two or more thereof; a separator; a cathode having a cathode active material and a redox active species either mixed into the cathode or coated onto the cathode; and an electrolyte that includes a salt; and an aprotic ...

The present application is a national stage of International Application No. PCT/US2013/038951, titled "Improved Lithium Titanate Cell," filed Apr. 30, 2013 and claims priority to U.S. Provisional Patent Application No. 61/687,842, filed May 1, 2012.

A lithium-ion battery includes a positive electrode comprising a current collector and a first active material comprising LiCoO 2 and a negative electrode comprising a current ...

The present invention relates to lithium titanate materials suitable for use in electrochemical applications, and methods for their production. The materials of the present invention are particularly suitable as electrode (e.g. anode) materials, and as lithium ion conducting membranes. Accordingly, the materials of the present invention may find particular utility as ...

The present disclosure relates generally to the field of lithium ion batteries and battery modules. More specifically, the present disclosure relates to a battery module including a lithium ion battery cell having a cathode with a cathode active layer and an anode with an anode active layer. The anode active layer includes at least one polyvinylidene fluoride (PVDF) binder, a conductive ...

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