

# (19) United States

# (12) Patent Application Publication (10) Pub. No.: US 2007/0218356 A1 Kawamura et al.

(43) **Pub. Date:** Sep. 20, 2007

### (54) LITHIUM SECONDARY BATTERY

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(21) Appl. No.: 11/798,348

(22) Filed: May 14, 2007

### Related U.S. Application Data

(62) Division of application No. 10/808,481, filed on Mar.

## Foreign Application Priority Data

Mar. 31, 2003 (JP) ...... 2003-096988

#### **Publication Classification**

(51) Int. Cl. H01M 4/02 (2006.01)

#### (57) ABSTRACT

There is provided a lithium secondary battery with a negative electrode which comprises a negative electrode active material layer comprising alloy particles comprising silicon and tin and having an average particle diameter of 0.05 to 2 μm as an active material, and a negative electrode current collector, wherein the negative electrode active material layer has a storage capacity of 1,000 to 2,200 mAh/g and a density of 0.9 to 1.5 g/cm<sup>3</sup> and which thereby has a high capacity and a good cycle-characteristic. Thus, a lithium secondary battery having a high capacity and a long life and so designed as to exhibit these characteristics at the same time is provided.

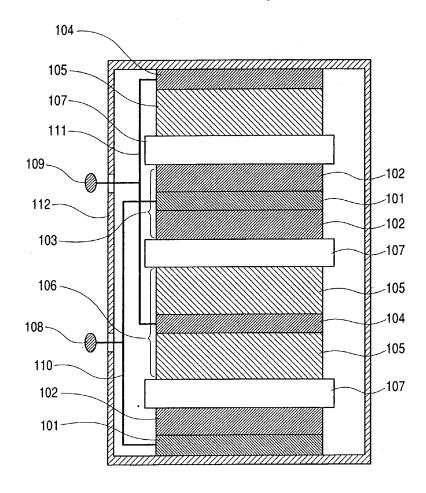




FIG. 1

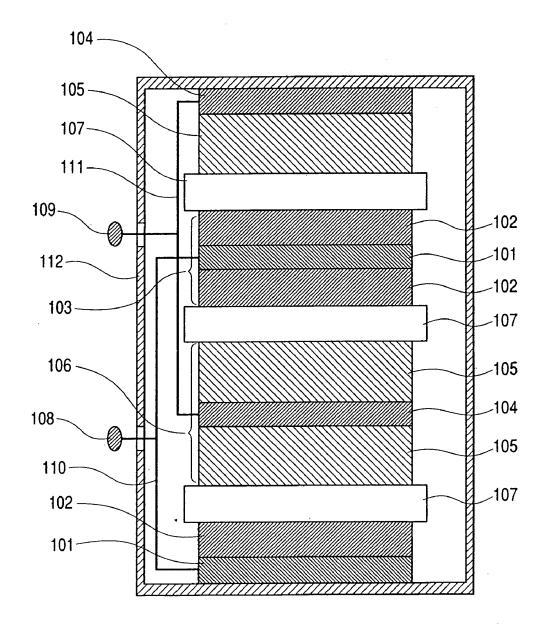


FIG. 2

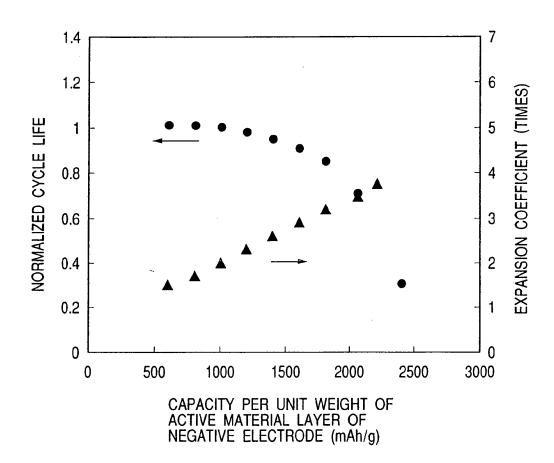




FIG. 3

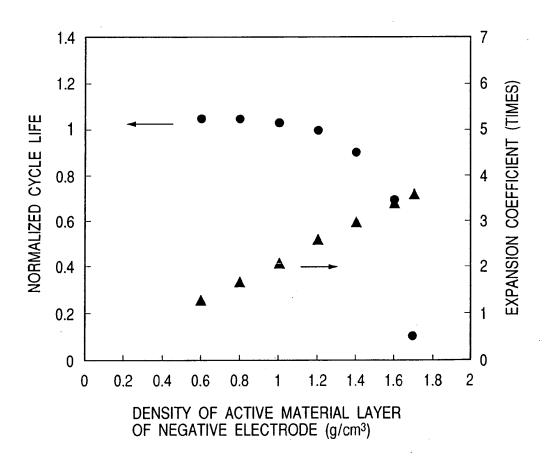
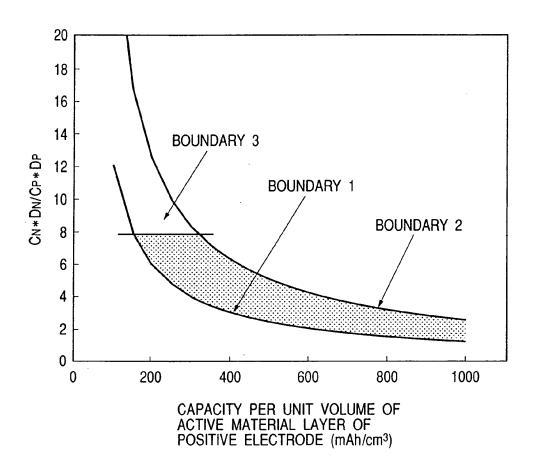


FIG. 4



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