

5645960**THIN FILM LITHIUM POLYMER
BATTERY**

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as represented by the Secretary of the Air Force

A solid state electrochemical cell comprising: (a) an electrolyte comprising a polymeric matrix, an inorganic salt and a solvent; (b) an anode comprising a thin film of lithium metal or an alloy thereof; and (c) a cathode comprising a polymeric matrix, a conductive carbon and a metal salt, M_2ZO_4 , wherein M is Ag or Cu and Z is W, Mo or Cr.

exhibits excellent charge-discharge characteristics as an active material of a positive electrode of a secondary battery.

5648187**STABILIZED ANODE FOR
LITHIUM-POLYMER BATTERIES**

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The invention relates to thin film solid state electrochemical cells consisting of a lithium metal anode, a polymer electrolyte and a cathode, where the lithium anode has been stabilized with a polymer film capable of transmitting lithium ions.

5648057**PROCESS FOR PRODUCING LiM_3+O_2 OR
 $LiMn_2O_4$ AND $LiNi_3+O_2$ FOR USE IN
POSITIVE ELECTRODE OF SECONDARY
BATTERY**

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13, 1994. A process for producing a compound of the
formula LiM_3+O_2 (wherein M_3+ is Ni_3+ or Co_3+)
or $LiMn_2O_4$ is provided which comprises the steps of
reacting a basic metal salt represented by the formula
 $M_2+(OH)_2-nx(An-)_x \cdot mH_2O$ (wherein M_2+ is at least
one member selected from among Ni_2+ , Co_2+ and
 Mn_2+ , $An-$ is an n-valent anion (provided that n is 1 to
3), such as NO_3- , $Cl-$, $Br-$, CH_3COO- and CO_3^{2-} and x
and m are positive numbers respectively satisfying $0.03 <$
 $or = x < or = 0.3$ and $0 < or = m < or = 2$) with an alkaline
water-soluble lithium compound in a molar ratio of
 Li/M_2+ of 0.3 to 1.3 in an aqueous medium to obtain a
slurry, drying the obtained slurry, and firing the resultant
residue at about $500^\circ C$ or higher in an oxidative
atmosphere. This process ensures production of the
 LiM_3+O_2 and $LiMn_2O_4$, which are highly purified and
have high crystallization degrees, in large quantities on
a commercial scale. The thus produced $LiNi_3+O_2$

NICKEL METAL HYDRIDE BATTERIES**5635313****NICKEL ELECTRODE FOR AN
ALKALINE SECONDARY BATTERY**

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There is provided a nickel electrode for an alkaline
secondary battery, in which the coefficient of use of
nickel hydroxide, which is an active substance, is high,
the swell restricting effect is high, and the
charging/discharging cycle life characteristic is high.
The nickel electrode is formed by filling a conductive,
porous substance of a three-dimensional network
structure with a mixture containing an active substance
consisting mainly of nickel hydroxide. The nickel
hydroxide is such that, when thermogravimetric analysis
is performed at a heating rate of $10^\circ C/min$ and the TG
curve is plotted, the value obtained by subtracting the
weight decrease percentage at a temperature of T
degrees C. at which the DTG curve, the differential
curve of the TG curve, turns to an upward curve from
the weight decrease percentage of the nickel hydroxide
at a temperature of $100^\circ C$ is 0.6 to 1.5%.