

**5645960****THIN FILM LITHIUM POLYMER  
BATTERY**

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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<sup>3+</sup> or/and Co<sup>3+</sup>)  
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<sup>2+</sup>, Co<sup>2+</sup> and  
Mn<sup>2+</sup>, An- is an n-valent anion (provided that n is 1 to  
3), such as NO<sub>3</sub><sup>-</sup>, Cl<sup>-</sup>, Br<sup>-</sup>, CH<sub>3</sub>COO<sup>-</sup> and CO<sub>3</sub><sup>2-</sup> 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°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°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°C is 0.6 to 1.5%.