

**OTHER BATTERIES****5498951****METHOD AND APPARATUS FOR CHARGING ELECTRIC DOUBLE LAYER CAPACITOR**

Okamura Michi; Morimoto Takeshi; Hiratsuka Kazuya  
Kanagawa, JAPAN assigned to JEOL Ltd

Method and apparatus for quickly and efficiently charging an electric double layer capacitor. The capacitor is charged by a constant-current power supply which is preferably a current controlled output type switching power supply. To cause the voltage across the terminals of the capacitor to reach its working voltage in a short time, the capacitor is overcharged for a short time. Where the capacitor is charged with a solar battery, a constant-current output type switching regulator is interposed between the solar battery and the capacitor.

**5500308****ELECTROCHEMICAL CELL HAVING AN INNER SEAL MEMBER**

West Jack T; Annen James H; Schneider Daniel A;  
Kokoszka Marek McFarland, WI, UNITED STATES  
assigned to Rayovac Corporation

This invention pertains to electrochemical cells, and specifically to an inner seal member in an electrochemical cell. The inner seal member is positioned against, and in intimate contact with that portion of the separator which extends above the cathode mix, or a retaining washer on the cathode mix, and is also in intimate contact with the cathode mix or the retaining washer. The seal member is preferably emplaced as a fluid material and is preferably distributed by centrifugal force, by rotating the cell as the sealant material is dispensed into the cell. The inner seal member is effective to retard loss of battery performance over an extended period of storage time, both at room temperature and at elevated temperature. The seal member is a composition of hydrocarbons or fatty acid ester oils having the capacity to remain in full surface-to-surface contact, as it cools, with the surfaces upon which it is placed warm or hot, in the cell.

**5506065****ELECTROLYTE-ACTIVATED BATTERY**

Tribioli Silvano; Giardinelli Vito; Rocco Francesco;  
Cerrano Franco Leghorn, ITALY assigned to  
Whitehead Alenia Sistemi Subacquei SpA;  
Microtecnica SpA

An electrolyte-activated battery, particularly for generating electric energy for the propulsion of underwater systems, and presenting a reservoir, an electrochemical cell, and a system for forming and circulating the electrolyte between the reservoir and the electrochemical cell; the electrolyte forming and circulating system presenting an inlet conduit communicating with the outside environment, a circulating pump, a device for regulating the temperature of the electrolyte at the inlet of the electrochemical cell, and a gas separator located at the outlet of the cell and presenting a liquid phase outlet connectable to the circulating pump, and a gaseous phase outlet connected to an outlet conduit; the inlet and outlet conduits presenting respective closure members facing and rigidly connected to each other so that they are subjected to the same but opposite hydrostatic pressures, and which are movable between a closed position and an open position wherein they are housed inside the respective conduits.

**5506067****RECHARGEABLE ELECTROCHEMICAL CELL AND CELL CASE THEREFOR WITH VENT FOR USE IN INTERNAL RECOMBINATION OF HYDROGEN AND OXYGEN**

Tinker Lawrence Woodstock, GA, UNITED STATES  
assigned to AER Energy Resources Inc

A case for a rechargeable electrochemical cell comprises a vent disposed in the case interior, the vent including an oxygen/hydrogen recombination catalyst for catalyzing the recombination of the hydrogen produced by the cell during the recharge mode with oxygen in the case interior to form water in the case interior. The vent comprises a vent support extending