inwardly from the cell case shell, a gas permeable, electrolyte impermeable vent cover membrane adjacent the interior surface of the vent support, and a foraminous catalyst support disposed in the case adjacent the interior surface of the vent cover membrane so that the vent cover membrane is sandwiched between the catalyst support and the vent support. Oxygen from the ambient air permeates the vent cover membrane and recombines with the hydrogen in the cell case interior. A rechargeable electrochemical cell comprising the cell case is encompassed and the cell is desirably a metal-air cell.

5506072

REVERSIBLE HIGH ENERGY CAPACITY METAL-SULFUR BATTERY AND METHOD OF MAKING SAME

Griffin Eric B; Edling Jack V San Diego, CA, UNITED STATES assigned to Griffen Eric B

A reversible high energy capacity battery and method of making that battery. A cathode is formed by packing a mixture of from about 10 to 90 weight percent finely divided sulfur and from about 90 to 10 weight percent finely divided graphite about an electrically conductive electrode, preferably in a porous enclosure. This cathode and a reactive metal anode are placed in a case of suitable configuration which is non-reactive with other components. An electrolyte is prepared by dissolving a metal solute and an ionic sulfide solute in a polar solvent, such as water. Buffering agents, conditioners and complexing agents may be added to the electrolyte to improve battery life and performance.

5506076

ALKALI SECONDARY BATTERY

Miyamoto Kunihiko; Fukuju Takeshi; Sugimoto Ken Tokyo, JAPAN assigned to Toshiba Battery Co Ltd

This invention discloses an alkali secondary battery which includes a cadmium-free positive electrode whose swelling ratio is decreased, and in which the cycle characteristic is improved and the charge efficiency in use at high temperatures is also improved. This alkali secondary battery includes a positive electrode accommodated in a case and having a structure in which a paste containing nickel hydroxide grains, a conductor, and a binder is filled in a metal porous body, a negative electrode accommodated in the case and so arranged as to oppose the positive electrode with a separator sandwiched between them, and an alkali electrolyte contained in the case. The nickel hydroxide grains contained in the positive electrode have a structure in which cobalt and at least one transition metal selected from the group consisting of copper, bismuth, chromium, gallium, indium. lanthanum, scandium, and yttrium are coprecipitated with metal nickel at a ratio of 1.5 to 11.0 wt % with respect to nickel hydroxide.

5508123

POWER SUPPLYING DEVICE

Fan Chih-Lung Taipei, CHINA (TAIWAN) assigned to Wey Henn Co Ltd

A power supplying device including a body portion having an inner end with a vertical wall on which are mounted a pair of electrodes, the vertical wall having a bottom extending outwardly to form a battery seat, the battery seat having a bed provided with two opposite grooves one at each side thereof and a spring-loaded retainer member close to an outer edge of the battery bed, a dry battery pack including a housing and a cover, the housing being for receiving dry batteries and provided at one end with two openings for mounting a pair of electrodes, the housing having a bottom formed with two flanges one at each side thereof and a slot close to another end of the housing, and a rechargeable battery pack including a casing and a covering plate, the casing being for receiving rechargeable batteries, the covering plate having a cavity adapted to receive the retainer member, the casing having a bottom formed with two flanges one at each side thereof.