5483145

SECONDARY BATTERY CHARGING CIRCUIT

Shiojima Nobuo; Enomoto Sadakaz Tokyo, JAPAN assigned to Toshiba Battery Co Ltd

A secondary battery charging circuit of this invention includes a charging source for supplying a charging current to a secondary battery, a temperature detection unit for generating an output which changes almost linearly with respect to a change in temperature of the secondary battery during a charging operation, a differential unit for obtaining a differential value of an output from the temperature detection unit, a comparator unit for comparing the differential value during the charging operation with a setting value, and for, when the relationship between the two values is reversed, generating an inverted output, a timer circuit unit, started simultaneously with start of the charging operation of the secondary battery, for generating a timer output after an elapse of a predetermined period of time, and a charge control unit for controlling the charging operation of the secondary battery in response to one, generated earlier, of the inverted output from the comparator unit, and the timer output from the timer circuit unit.

5483165

BATTERY SYSTEM AND METHOD FOR DETERMINING A BATTERY CONDITION

Cameron David B; Powers Daniel; Lyster Thomas; Morgan Carlto Seattle, WA, UNITED STATES assigned to Heartstream Inc

This invention is a battery monitor and battery capacity indicator that uses a sense cell in addition to the main battery to determine main battery remaining capacity and depletion condition. A parameter of the sense cell is related to the main battery capacity so that the main battery will have a minimum capacity remaining when the sense cell parameter reaches a particular value or crosses a particular threshold. In a preferred embodiment, the sense cell is a battery which is identical and of the same manufacturing lot as the battery cell or cells in the main battery pack. A current is drawn from the sense cell that is larger than the current being drawn from the main battery. When the sense cell is fully depleted, the main battery will have a remaining capacity whose magnitude depends on the relationship between the main battery current and the sense cell current.

OTHER BATTERIES

365801

BATTERY

Lindahl Richar Malmo SWEDEN assigned to Telefonaktiebolaget L M Ericsson

The ornamental design for battery, as shown and described.

5474858

METHOD FOR PREVENTING GAS FORMATION IN ELECTRO-CHEMICAL CELLS

Merritt Donald R Brooklyn Center, MN, UNITED STATES assigned to Medtronic Inc

A non-aqueous electrochemical cell comprising an active metal anode, an organic electrolyte and a cathode comprising a minor amount of a desiccant which is insoluble in the organic electrolyte and non-reactive during cell discharge. The resulting cell has been found to be resistant to internal gas generation. Such a desiccant is particularly useful in lithium/manganese dioxide cells.

5474861

ELECTRODE FOR NON-AQUEOUS ELECTROLYTE SECONDARY BATTERY

Bito Yasuhiko; Murai Hiroyuki; Hasegawa Masaki; Ito Shuji; Toyoguchi Yoshinori Minamikawachi, JAPAN assigned to Matsushita Electric Industrial Co Ltd

An electrode for a non-aqueous electrolyte secondary battery to be embodied in both the anode and cathode.