



(19)中華民國智慧財產局

(12)新型說明書公告本

(11)證書號數：TW M438034U1

(45)公告日：中華民國 101 (2012) 年 09 月 21 日

(21)申請案號：100222196

(22)申請日：中華民國 100 (2011) 年 11 月 24 日

(51)Int. Cl. : *H01M10/50 (2006.01)*

(30)優先權：2010/12/23 中國大陸 201010603717.7

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申請專利範圍項數：22 項 圖式數：20 共 42 頁

(54)名稱

一種電池的加熱電路

BATTERY HEATING CIRCUIT

(57)摘要

本新型提供的電池的加熱電路包括開關裝置、開關控制模組、第一阻尼元件、儲能電路以及能量疊加單元，所述儲能電路用於與所述電池連接，所述儲能電路包括電流記憶元件和電荷記憶元件，所述第一阻尼元件、開關裝置、電流記憶元件和電荷記憶元件串聯，所述開關控制模組與開關裝置連接，用於控制開關裝置導通和關斷，以控制能量在所述電池與所述儲能電路之間的流動，所述能量疊加單元與所述儲能電路連接，用於在開關裝置導通再關斷後，將儲能電路中的能量與電池中的能量進行疊加。本新型提供的加熱電路能夠提高電池的充放電性能，在給電池加熱時安全性高，且能夠提高加熱電路的工作效率。

A battery heating circuit provided in the utility comprises: a switchgear, a switch control module, a first damping element, an energy storage circuit and an energy summation unit. The energy storage circuit for connecting with the battery comprises a current storage element and a charge storage element. The first damping element, the switchgear, the current storage element and the charge storage element are connected in series. The switch control module is connected with the switchgear for controlling the switchgear to switch on and off so as to control energy to flow between the battery and the energy storage circuit. The energy summation unit is connected with the energy storage circuit for summing up energy in the energy storage circuit and energy in the battery after the switchgear is first switched on and then switched off. The heating circuit provided in the utility can improve charge-discharge performance of the battery, improve security when heating the battery and enhance work efficiency of the heating circuit.