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(54) **RECHARGEABLE ELECTROMAGNETIC INDUCTION BATTERY**

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(57) **ABSTRACT**

According to an example aspect of the present invention, there is provided a rechargeable electromagnetic induction battery comprising: a first electrode, which comprises heat sink and an anode; a second electrode, which comprises heat sink and a cathode; an inductor coil; and an electrolytic solution contained between the first and second electrodes. Also, there is provided a method of charging an electromagnetic induction battery, comprising the steps of: attaching a voltage source to the battery, applying a direct current voltage to the battery for a first period of time, and applying an alternating current voltage to the battery for a second period of time, wherein the battery has an anode, cathode, inductor and an electrolytic solution comprising electrons, wherein the alternating current generates a magnetic field which excites the electrons in the electrolytic solution to an upper energy state.