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Patent Search

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Abstract:

EMPLOYING MULTI-ENERGY SOURCES TO HEATING THE WATER IN A THERMOS BOTTLE COMPRISING WITH POWER STORAGE SYSTEM The current scenario is increasing due to use warm water for drinking purposes while traveling and working place, especially in the winter season. However, the thermos bottle, which is now widely used for car warm water for indoor and outdoor works. Consequently, a better option is to opt for a thermos bottle to keep the warm water and it has been seen that might behold up hours of warm water. Indeed, the thermos bottle is constructed in such a manner as double-walled stainless steel and mixed glass composites and so on, with a vacuum in space between the two walls. In this current invention is revealed the novel approaches are used for making thermos bottle and their unique fabrications method for com with power storage system (PSS). Although, for heating the water (the heating temperature of warm water will be seen through the digital display) is using multi-energy so such as AC power source, and using an embedded system like PSS, which will be charged by solar strip (SS) is arranged on the periphery of the thermos bottle and also can be used as AC power source. Moreover, the SS will be charging the PSS and PSS can be useful for cell phone and electronics compatible lamp or LED based lamp through C-type port. The thermos bottle has many more uses. A novel thermos bottle has useful benefit as follows: water in the thermos bottle will be heated by AC power, and PSS; thermos bottle is simple in structure, energy-saving, excellent thermal insulating, handy, convenient, environment-friendly, and low in price.

Complete Specification

Claims: 1. A thermos bottle utilizing the multi-energy sources comprises a bottle (1), bottle cap (2), heating element (3), heating element connector (4), NTC (Negative Temperature Coefficient) thermistor (5), thermistor cover (6), thermistor cover fasteners (7), switch (8), type c port (9), battery level indicator (10), temperature indicator (11), battery (12), control unit (13), control unit fasteners (14), solar strips (15), solar strips connectors (16), base plate (17), and base plate fasteners (18).

2. The thermos bottle as claimed in claim 1, wherein said bottle (1) comprises two insulation layers along with vacuum in between them; wherein the bottom section comprises ceramic coating for heating element, thermistor, type C port hole, battery and temperature indicator hole, switch hole, and provision for assembling other components on it, which also comprises threaded hole for fastening the components on it; wherein Bottle Cap (2) covers the top of the bottle, for avoiding leakage and temperature isolation; and Heating Element (3) is winding of nichrome wire, for heating the fluid inside bottle up to maximum temperature of 50 °C; and Heating Element Connector (4) are wires with ceramic connectors at their end, they supply the power to heat element and connects the heating element to control unit.

3. The thermos bottle as claimed in claim 1, wherein said NTC (Negative Temperature Coefficient) Thermistor (5) is functioning as temperature sensor for cutting off the power to nichrome wire and maintaining constant temperature in the bottle; and Thermistor Cover (6) is attached for isolating the thermistor from other components to ensure its effective operation; and Thermistor Cover Fasteners are attached for fastening the cover to the bottle.

4. The thermos bottle as claimed in claim 1, wherein said Switch (8) is sliding switch for activating the heating in the bottle; and Type C Port (9) provides direct power supply to system, charging the battery, and reverse charging any device connected to it; and Battery Level Indicator (10); LED indicator indicating the battery level.

5. The thermos bottle as claimed in claim 1, wherein said Temperature Indicator (11) is LED indicator which indicates the temperature level in the bottle; and Battery (12)

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