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Patent Search

Invention Title	COOLING SYSTEM FOR REDUCING TEMPERATURE AND CARBON DIOXIDE LEVELS IN HOT AND DRY REGIONS
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Abstract:

COOLING SYSTEM FOR REDUCING TEMPERATURE AND CARBON DIOXIDE LEVELS IN HOT AND DRY REGIONS ABSTRACT A cooling system (100) for reducing a tempera carbon dioxide (CO₂) levels in hot and dry regions is disclosed. The cooling system (100) comprises a tower structure (102) to facilitate a passage of hot air. The tower (102) incorporates clay pots (104a-104n) configured to contain a solution composed of either potassium hydroxide (KOH) and water or sodium hydroxide (NaOH) and circulation of hot air through the clay pots (104a-104n) induces solution evaporation, resulting in a substantial cooling effect and concurrent reduction in carbon diox levels. A frame (106) securely holds the clay pots (104a-104n), and a conduit (108) system is employed for the controlled distribution of the solution from a tank (110) pots (104a-104n). A control unit (112) oversees a pump (116), ensuring timely replenishment of the solution as necessitated by environmental conditions. Claims: 10, Figure 1A is selected.

Complete Specification

Description:BACKGROUND

Field of Invention

[001] Embodiments of the present invention generally relate to cooling system, particularly to a cooling system for reducing a temperature and carbon dioxide (CO₂) levels in hot and dry regions.

Description of Related Art

[002] A traditional method employed in hot and arid regions to lower temperatures involves a cooling wind tower equipped with pots and a solution containing lime (potassium hydroxide) and water. This technique functions by directing hot air through a tower containing moistened clay pots filled with the KOH solution, causing water to evaporate and subsequently cool the air. Other methods akin to this include evaporative coolers, which function by passing hot air through a damp pad or membrane, achieving cooling through evaporation, and air conditioners, which utilize refrigerants for cooling.

[003] The primary distinctions between these cooling techniques lie in their expenses, efficiency, and environmental impact. Cooling wind towers with pots and lime solutions tend to be cost-effective and environmentally sustainable, relying solely on water and a natural potassium hydroxide solution. Nonetheless, they may not be effective, particularly in regions with high humidity, when compared to evaporative coolers or air conditioners.

[004] BR112013006922A2 outlines a novel approach for efficiently reducing carbon dioxide through electrochemical processes. The method involves the use of specialized apparatus, including electrodes and electrolytes, to facilitate the conversion of CO₂ molecules into valuable chemicals or fuels. However, the above-disclosed art is not suitable for domestic and personal level installation.

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