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(54) Title: GLOBAL COOLING BUOYANT COMPOSITION WITH METHODS OF USE

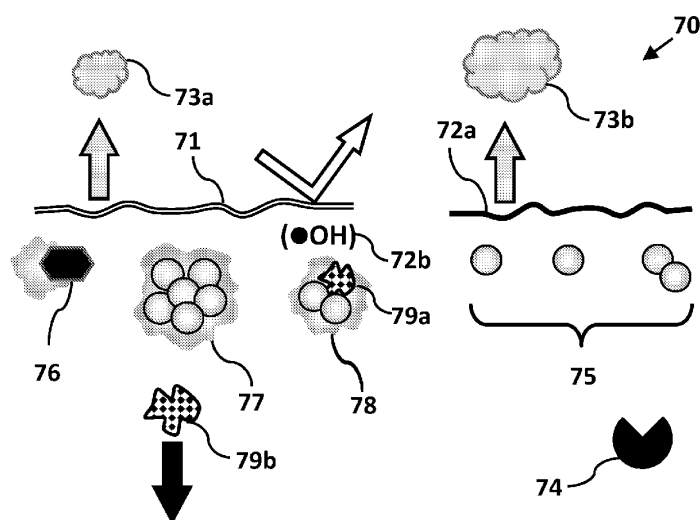


FIG. 7

(57) Abstract: A buoyant reflective composition is provided having hollow silicon dioxide glass microspheres with sizes from 500-650 nanometers, a 400 nm air inclusion bubble, and being within a range of 1%- 98% by weight, of nominally 23%. Food-grade TiO2 particles are included between 0%-10% by weight of the total. An aliphatic component mixture having C 16 or C 18 aliphatic alcohol with slightly water soluble C16 or C18 aliphatic carboxylic acid are included, having a total composition buoyancy in water at a density of less than about 1.0 g/cm3. The C16 or C18 aliphatic carboxylic acid is 0%-10% by weight. The TiO2 content is 0%- 5% by weight. The composition may have up to 5 % by weight iron oxide as Fe2+, Fe3+, or both. Also provided are methods of cooling an environment, including providing a substrate; and applying an effective amount of a preselected buoyant reflective coating to the substrate.

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