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(54) Title: CHARGE CONTROLLED BIOCIDE APPARATUS AND METHOD OF USE THEREOF

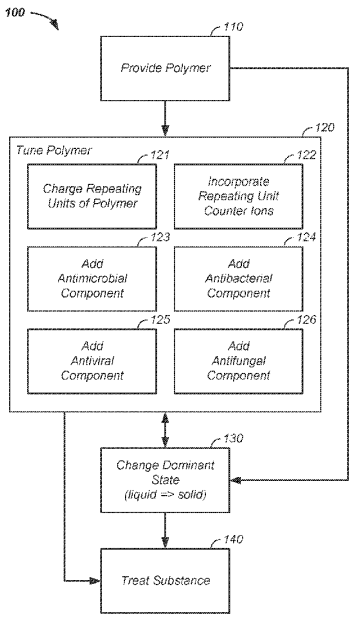


FIG. 1

(57) **Abstract:** The invention comprises a method and apparatus for dispensing a biocide, comprising: a container and a biocide formulation in the container, the biocide formulation comprising: (1) the biocide and a solvent, the biocide comprising a protonated polymer comprising repeating charged units; (2) a total cationic charge density in a range of 0.005 to 0.95 meq/g, at least ten percent of the total cationic charge density from charges of non-quaternary amines of the protonated polymer; (3) an activity coefficient, γ, of a protonated site of the protonated polymer, of greater than 0.7; and (4) a counterion chloride concentration of less than 900 ppm.

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