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(54) Title: CONTROLLED PRODUCTION OF AQUEOUS HALOGEN SOLUTIONS WITH VARYING COMPOSITIONS

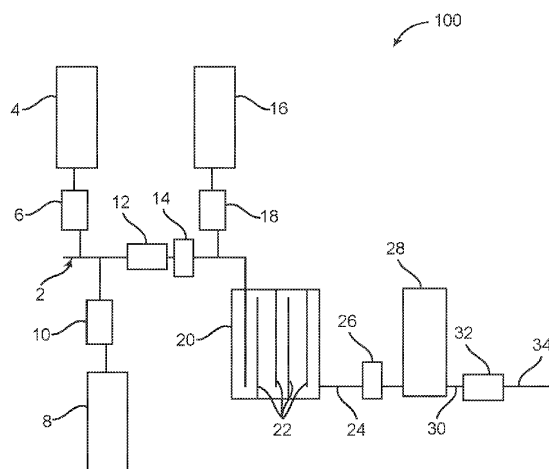


FIG. 1

(57) Abstract: Methods and systems for the controlled production of aqueous halogen solutions with varying compositions are disclosed. According to an embodiment, aqueous solutions of hypochlorite ions are modified through the sequential addition of pH adjusting chemicals, non-chloride halide ions, and halogen stabilizing compounds. Sensors, for measuring physical and chemical properties of the solutions as they change due to the impact of the various chemical reactions, are linked to a control system which, in turn, can control the input of one or more chemicals. The control system facilitates the production of a solution with desired characteristics in terms of pH, specific halogen composition, degree of halogen stabilization, and limiting the production of undesired byproducts such as bromate ions.

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