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(54) Title: ELECTROCHEMICAL GENERATION OF QUATERNARY AMMONIUM COMPOUNDS

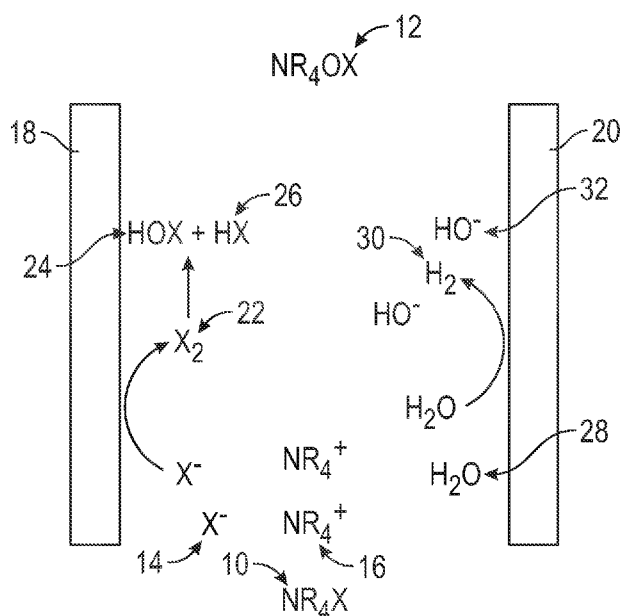


FIG. 1

(57) Abstract: Method and apparatus for electrochemical generation of quaternary ammonium hypohalite salts, which may be combined with the capabilities of free chlorine to form a novel biocidal system. An aqueous solution preferably comprising dissolved quaternary ammonium halide salts is electrolyzed, which converts the halide component of the quaternary ammonium salt to the corresponding halogen. The halogen dissolves in the aqueous solution producing hypohalous acid and hypohalite anion. A combination of one or more quaternary ammonium compounds and a halide salt, surfactant, and/or germicide may be electrolyzed. The solution may be incorporated into a delivery system for example, a spray bottle or hand sanitizer, or as part of a dispensing system whereby quaternary ammonium halide salts absorbed onto wipes can be dispensed as quaternary ammonium hypohalite salts.



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