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(54) Title: LIQUID CATHODE FORMULATION FOR RECHARGEABLE METAL HALIDE BATTERY

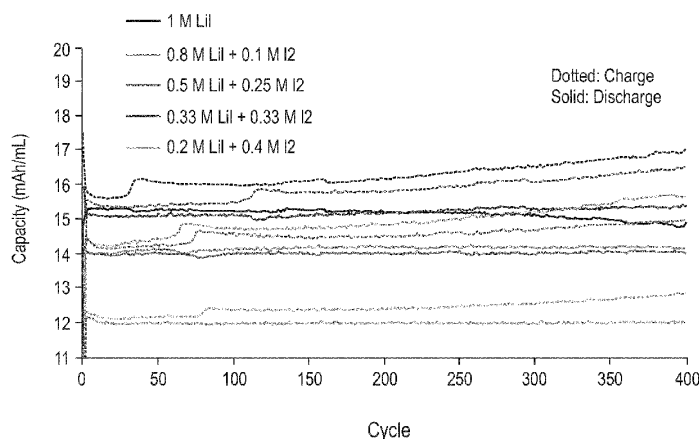


FIG. 2

(57) Abstract: A rechargeable metal halide battery with an optimized active cathode electrolyte solution has high energy density and does not require charging following fabrication. The optimized active cathode electrolyte solution includes (i) a mixture of a metal halide and its corresponding halogen dissolved in an organic solvent at a concentration ratio greater than 0.5 and (ii) an oxidizing gas. The organic solvent is a nitrile-based compound and/or a heterocyclic compound. Glyme may be added to the organic solvent to improve battery performance.

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