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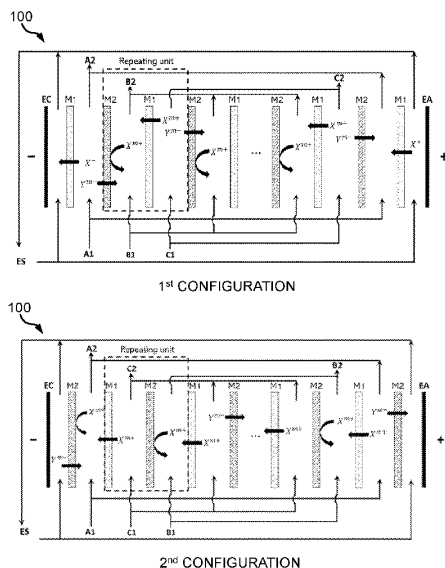


FIG. 41

(57) Abstract: An electrodesalination stack. A membrane stack includes a plurality of chambers defined by a corresponding plurality of membranes, the latter being alternately disposed cation exchange membrane(s) and anion exchange membrane(s). A first mediation chamber is interposed between a cathode chamber and a first chamber of the plurality of chambers. A first membrane of the membrane stack is disposed between a first stream in the first chamber and a mediation solution in the first mediation chamber. A cathode chamber membrane is disposed between the first mediation chamber and the cathode chamber. A second mediation chamber is interposed between an anode chamber and a last chamber of the plurality of chambers. A last membrane of the membrane stack is disposed between a last stream in the last chamber and a mediation solution in the second mediation chamber. An anode chamber membrane is disposed between the second mediation chamber and the anode chamber.

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