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ABSTRACT

**METHOD AND APPARATUS FOR ELECTRODEIONIZATION OF WATER
USING MIXED BED AND SINGLE PHASE ION EXCHANGE
MATERIALS IN DILUTING COMPARTMENTS**

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The invention provides a method and apparatus for electrodeionizing water, whereby the water to be purified is passed through diluting compartments in an electrodeionization unit having an anode compartment at one end of the unit and a cathode compartment at the other end of the unit, and a plurality of diluting compartments alternating with concentrating compartments defined by anion and cation exchange membranes. Each of the diluting compartments contains ion exchange material. Importantly, the ion exchange material comprises at least one mixed bed phase of anion exchange material and cation exchange material and at least one single phase, adjacent to the mixed bed phase, of anion exchange material or cation exchange material, or anion exchange and cation exchange material.

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