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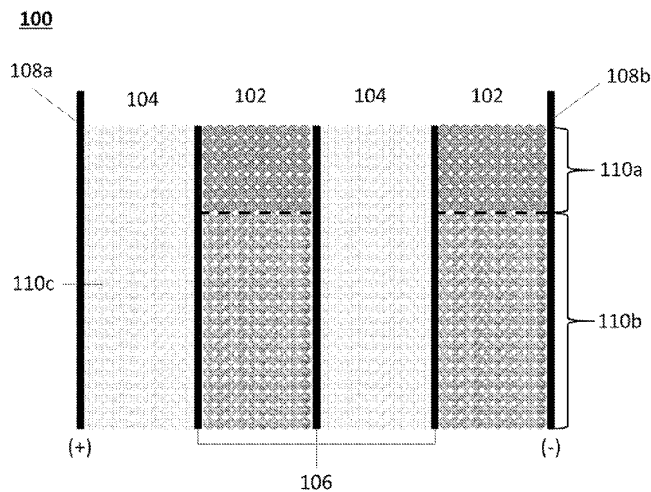


FIG. 1

(57) **Abstract:** Electrochemical water treatment devices are disclosed. The device includes a feed inlet fluidly connectable to a source of water including dissolved silica and a chlorine-containing compound and an electrochemical separation module fluidly connectable to the feed inlet. The electrochemical separation module includes a dilution compartment, a concentration compartment, an ion exchange membrane positioned between the dilution and concentration compartment, and first and second electrodes. A first portion of a volume of the dilution compartment includes a first ion exchange media positioned proximate to the feed inlet. A second portion of the volume of the dilution compartment includes a second ion exchange media positioned distal to the feed inlet. The first ion exchange media has a greater resistance to the chlorine-containing compound than the second ion exchange media. Methods of reducing a concentration of dissolved silica in water are disclosed. Methods of facilitating treatment of water containing dissolved silica are disclosed.

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