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(54) Title: ELECTRODEIONIZATION CONFIGURATION FOR ENHANCED REMOVAL OF WEAKLY IONIZED SPECIES

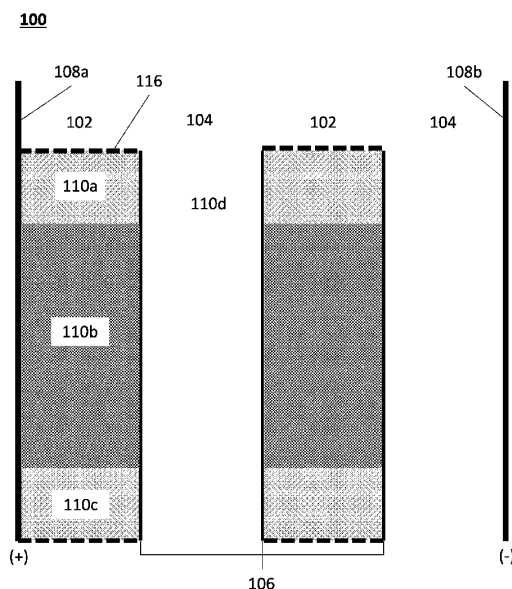


FIG. 1

(57) Abstract: Electrochemical water treatment devices are dis-
closed. The device includes an electrochemical separation module
fluidly connectable to the source of water to be treated. The elec-
trochemical separation module includes a first electrode, a second
electrode, and a plurality of dilution compartments. Each of the di-
lution compartments includes a first region of ion exchange me-
dia having a first average particle size, a second region of ion ex-
change media having a second average particle size, and a third re-
gion of ion exchange media having a third average particle size. A
volume of the second region of ion exchange media being greater
than or equal to a total volume of the first and third regions of ion
exchange media. Methods of facilitating treatment of water con-
taining weakly ionized species, e.g., dissolved boron containing
species and dissolved silica containing species, are disclosed. Elec-
trochemical separation modules are also disclosed.

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