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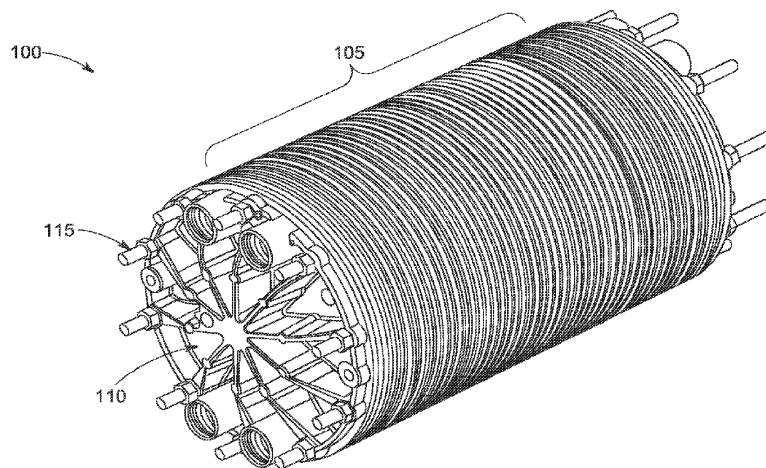


FIG. 1A

(57) Abstract: An electrodeionization device includes a spacer comprising a first inlet port, a first outlet port, a first plurality of first flow channels configured to direct fluid in a first direction from the first inlet port to the first outlet port, and a second flow channel in series fluid communication with the first plurality of first flow channels between the first inlet port and first outlet port and configured to direct fluid in a second direction different from the first direction from the first inlet port to the first outlet port.

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