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(54) Title: INTERDIGITATED FLOW-FIELD WITH TAILORED HEADER FOR UNIFORM DISTRIBUTION OF ELECTROLYTE IN REDOX FLOW BATTERIES

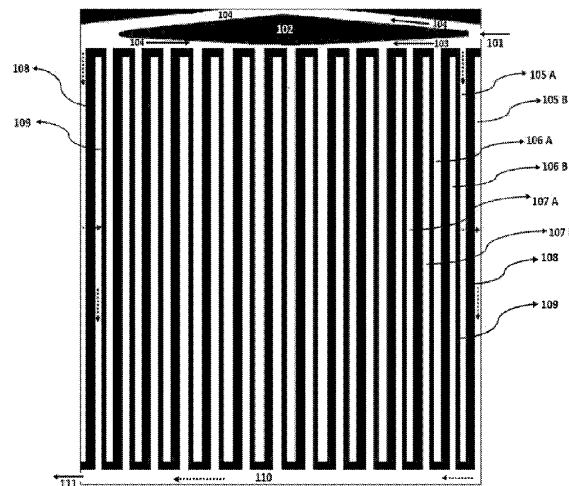


FIG. 2

(57) Abstract: The invention relates to interdigitated flow-fields with tailored header for uniform distribution of electrolyte in redox flow batteries. The design of a flow-field using the concept of interdigitated distribution between the flow-channels is adopted. A tailored inlet header in the interdigitated flow-field with associated design of the flow-channel configuration to obtain desired distribution of electrolyte at minimal pressure drop. This interdigitated flow-field differs from conventional flow-field patterns by having inlet of fluid to entrance channel but the exit through the adjacent exit channel which is interdigitated with the entrance channel. The transport of fluid from entrance channel to exit channel occurs by forced convection through the electrode under a solid rib which exists between the entrance and exit channels. The entrance and exit channels are extended between a common supply manifold and common exhaust manifold or a common inlet header and common outlet header.

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