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(71) Applicant: **EDWARDS VACUUM LLC** [US/US]; 6416
Inducon Drive West, Sanborn, New York NY 14132 (US).

(72) Inventor: **DUNBAR, Zachary William**; Edwards Vacuum
LLC, 6416 Inducon Drive West, Sanborn, New York 14132
(US).

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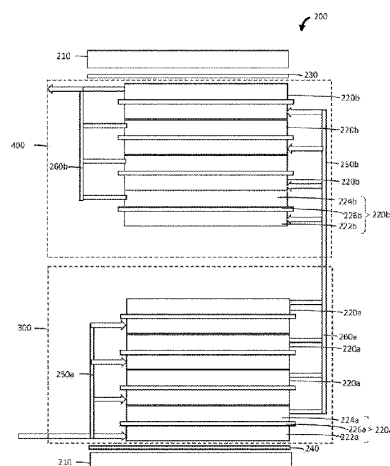


FIG. 3

(57) Abstract: A multistage electrochemical hydrogen pump, comprising a first electrochemical hydrogen pumping stage fluidly connected to a second electrochemical hydrogen pumping stage. The first electrochemical pumping stage is configured to receive a first gas mixture comprising hydrogen gas, electrochemically separate hydrogen gas from the first gas mixture to produce a second gas mixture, and output the second gas mixture to the second electrochemical pumping stage. The second electrochemical hydrogen pumping stage is configured to receive the second gas mixture from the first electrochemical hydrogen pumping stage, electrochemically separate hydrogen gas from the second gas mixture to produce a third gas mixture, and output the third gas mixture.

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