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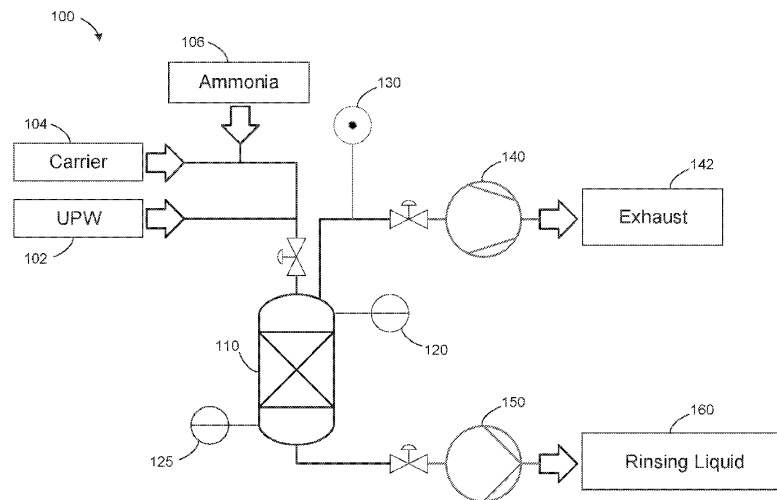


FIG. 1

(57) Abstract: Systems and methods are described for supplying a rinsing liquid including ultrapure water and an ammonia gas. The system includes an ultrapure water source and a gas mixture source in fluid communication with a contactor. The gas mixture includes ammonia gas and a carrier gas. The system includes a control unit configured to adjust a flow rate of the ultrapure water source such that an operational pressure of the contactor remains below a pressure threshold. The system includes a compressor configured to remove a residual transfer gas out of the contactor. The contactor generates a rinsing liquid having ultrapure water and a concentration of the ammonia gas dissolved therein. The system includes a pump in fluid communication between the contactor and an outlet. The pump is configured to deliver the rinsing liquid having a gaseous partial pressure below the pressure threshold at the outlet.

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