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APPARATUS FOR MAINTAINING A STABLE BATH FOR AN AUTODEPOSITION
COMPOSITION BY PERIODICALLY SEPARATING PARTICULAR METAL IONS
FROM THE COMPOSITION

ABSTRACT OF THE INVENTION

A system automated for providing at least periodic removal of metal ions and contaminants from a chemical bath, consists of a microprocessor programmed for controlling fluid circuits of pumps and valves, for in one state of operation circulating a first predetermined quantity of the chemical bath from a first tank, through an ion exchange column, and back to the first tank; for in a second state of operation circulating deionized water from a second tank into the IEX column for displacing residual chemical bath therefrom for return to the first tank; for in a third state of operation circulating deionized water through the IEX column, and discharging the rinse water from a waste port; for in a fourth state of operation circulating regenerant acid through the ion exchange column, and discharging the used acid from a waste port; for in a fifth state of operation circulating deionized water through the IEX column for rinsing acid regenerant therefrom and discharging the same out of a waste port; and for in a sixth state of operation circulating chemical bath into the IEX column for displacing residual rinse water therefrom, and discharging the same out of the waste port, in preparation for a cycle of treatment of the chemical bath.