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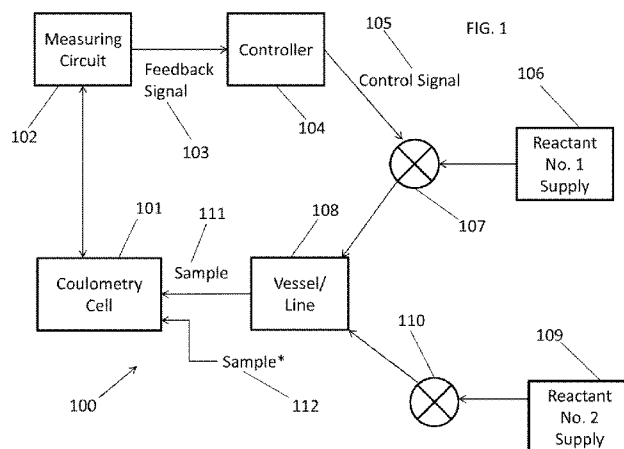
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(54) Title: METHOD AND APPARATUS FOR MEASURING AND CONTROLLING ELECTROLYTICALLY-ACTIVE SPECIES CONCENTRATION IN AQUEOUS SOLUTIONS



(57) Abstract: A method is provided for measuring an electrolytically-active species concentration in an aqueous or non-aqueous solution for use in providing control of the concentration of the species in a source solution thereof based on the measurements. In the method, a sample containing an electrolytically-active species is added into a measurement cell that has a working electrode and an auxiliary electrode, and a constant current is applied to the measurement cell while the working and auxiliary electrodes are in contact with the sample with monitoring of voltage difference across the electrodes until a change in the voltage difference is detected. A feedback signal is generated based on a parameter of the change in the voltage difference that is directly proportional to the amount of the electrolytically-active species in the sample, which can be used for process control. An apparatus is also described.