

ABSTRACT

HALF-CELL ELECTROCHEMICAL CONFIGURATIONS FOR SELF-CLEANING ELECTROCHLORINATION DEVICES

An electrochemical cell including a first chamber having an anode, a second chamber having a cathode, at least one ionic connection between the first chamber and the second chamber, such that liquid electrolyte from the first chamber is prevented from mixing with liquid electrolyte in the second chamber is provided. The first chamber and the second chamber can be arranged in parallel and positioned remotely from each other. An electrochemical system including the electrochemical cell, and first and second sources of saline aqueous solutions is also provided. Water treatment systems are also provided. A method of operating an electrochemical cell including introducing first and second saline aqueous solutions into first and second chambers of the electrochemical cell, and applying a current across the anode and the cathode to generate first and second products, respectively is also provided. A method of facilitating operation of an electrochemical cell is also provided.

[Figure 10A]