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(54) Title: ELECTROLYSER FOR ELECTROCHLORINATION PROCESSES AND A SELF-CLEANING ELECTROCHLORINATION SYSTEM

(57) Abstract: The present invention concerns a chlorination electrolyser comprising, a housing provided with an inlet and an outlet suitable for the circulation of brine; at least one pair of bipolar electrodes facing each other and positioned within said housing. The electrolyser is characterised in that each bipolar electrode of said at least one pair comprises: a valve metal substrate; an active coating comprising at least one layer of a catalytic composition comprising ruthenium and titanium disposed over said substrate; a top coating comprising at least one layer of a composition comprising oxides of tantalum, niobium, tin, or combinations thereof disposed over said active coating. The invention also concerns a self-cleaning electrochlorination system comprising such an electrolyser, a method for its production, its use in normal and low salinity pools for hypochlorite mediated water disinfection and a method for hypochlorite-mediated water disinfection.