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(54) Title: METHOD FOR CARRYING OUT THE ELECTROLYSIS OF AN AQUEOUS SOLUTION OF ALKALI METAL CHLORIDE

(54) Bezeichnung: VERFAHREN ZUR ELEKTROLYSE EINER WÄSSRIGEN LÖSUNG VON ALKALIMETALLCHLORID

(57) Abstract: The invention relates to a method for carrying out the electrolysis of an aqueous solution of alkali metal chloride, particularly sodium chloride, according to the membrane method involving the use of an aqueous solution of alkali metal hydroxide, particularly sodium hydroxide serving as a catholyte. According to the invention, the temperature of the alkali metal chloride solution in the anode half element and/or the volume flow of the alkali metal chloride solution in the anode half element are/is regulated so that the difference between the temperature of the alkali metal hydroxide solution at the entrance into the cathode half element and the temperature of the alkali metal hydroxide solution at the outlet of the cathode half element does not exceed 15 °C.

(57) Zusammenfassung: Die Erfindung beschreibt ein Verfahren zur Elektrolyse einer wässrigen Lösung von Alkalimetallchlorid, insbesondere Natriumchlorid, nach dem Membranverfahren mit einer wässrigen Lösung von Alkalimetallhydroxid, insbesondere Natriumhydroxid, als Katholyt, wobei die Temperatur der Alkalimetallchloridlösung in dem Anodenhalbelement und/oder der Volumenstrom der Alkalimetallchloridlösung in dem Anodenhalbelement so eingestellt werden, dass die Differenz zwischen der Temperatur der Alkalimetallhydroxidlösung am Eintritt in das Kathodenhalbelement und der Temperatur der Alkalimetallhydroxidlösung am Austritt aus dem Kathodenhalbelement nicht größer als 15 °C beträgt.

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