

Title (en)

METHOD OF PREPARING ALKALI-METAL PEROXIDE/PERCARBONATE SOLUTIONS

Title (de)

VERFAHREN ZUR HERSTELLUNG VON ALKALIPEROXID/PERCARBONAT-LÖSUNGEN

Title (fr)

PROCEDE DE PRODUCTION DE SOLUTIONS DE PEROXYDE/PERCARBONATE ALCALIN

Publication

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Application

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Priority

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Abstract (en)

[origin: US5766443A] PCT No. PCT/EP94/01506 Sec. 371 Date Jan. 2, 1996 Sec. 102(e) Date Jan. 2, 1996 PCT Filed May 10, 1994 PCT Pub. No. WO94/28198 PCT Pub. Date Dec. 8, 1994 The process for preparing an aqueous alkaline solution containing a peroxide and/or percarbonate includes providing an electrochemical cell comprising a porous oxygen diffusion cathode including a carbon woven or nonwoven fabric, a gas diffusion anode containing a carbon woven or nonwoven fabric and fed gaseous hydrogen or an anode including a metal grid coated with a noble metal catalyst and coated on a side facing the cathode with a proton-permeable membrane acting as a solid polymer electrolyte, an electrolyte-containing chamber between the cathode and the anode containing an electrolyte and a direct current source connected across the anode and cathode; feeding an aqueous feed solution containing at least one alkali hydroxide and/or alkali carbonate in a concentration of from 30 to 180 g/l into the electrolyte-containing chamber to provide the electrolyte; supplying an oxygen-containing gas containing molecular oxygen to the carbon woven or nonwoven fabric of the cathode; operating the direct current source to provide an external cell voltage of from 0.5 to 2.0 volts across the anode and the cathode; and withdrawing, from the electrolyte in the chamber, the aqueous alkaline solution containing the peroxide and/or percarbonate as a product characterized by an H₂O₂/alkali molar ratio of less than 4.

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IPC 8 full level

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