Title (en)

REMOVING IMPURITIES FROM AN ELECTROLYTE

Title (de)

ENTFERNUNG VON VERUNREINIGUNGEN AUS EINEM ELEKTROLYT

Title (fr)

ÉLIMINATION D'IMPURETÉS D'UN ÉLECTROLYTE

Publication

EP 4251791 A1 20231004 (EN)

Application

EP 21895995 A 20211123

Priority

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- CA 2021051665 W 20211123

Abstract (en)

[origin: WO2022109725A1] It is disclosed a purifier assembly and method for removing impurities from an electrolytic bath before using the same with an electrolytic cell for making a metal, such as aluminum or aluminium. The assembly comprises a purification tank, located upstream the cell, for containing the bath; and at least one row, preferably at least two rows, of alternating vertically oriented cathodes and anodes configured to be operatively connected to a power supply for providing an electric current to the anodes and cathodes. The rows of vertically oriented cathodes and anodes are configured in size to be inserted into the tank. The purifier assembly is configured to maintain an anode-to-cathode distance (ACD) between the cathodes and anodes. The purifier is particularly adapted for removing sulfur, phosphorus, iron, and/or gallium from cryolite for the eco-friendly production of aluminum with a cell using oxygen-evolving or inert anodes, which preferably requires a purer bath.

IPC 8 full level

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CPC (source: DK EP US)

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