

Title (en)

CATHODE ASSEMBLY WITH METALLIC COLLECTOR BAR SYSTEMS FOR ELECTROLYTIC CELL SUITABLE FOR THE HALL-HÉROULT PROCESS

Title (de)

KATHODENANORDNUNG MIT METALLISCHEN KOLLEKTORSTABSYSTEMEN FÜR ELEKTROLYSEZELLE FÜR HALL-HÉROULT-VERFAHREN

Title (fr)

ENSEMBLE CATHODE AVEC SYSTÈMES DE BARRES COLLECTRICES MÉTALLIQUES POUR CELLULE D'ÉLECTROLYSE SE PRÊTANT AU PROCÉDÉ HALL-HÉROULT

Publication

EP 4158084 A1 20230405 (EN)

Application

EP 21811764 A 20210525

Priority

- GB 202007782 A 20200526
- IB 2021054511 W 20210525

Abstract (en)

[origin: GB2595460A] This cathode assembly (C) can be used in the electrolytic production of aluminium (aluminum), it comprises a cathode body (1) made of carbonaceous material and at least one slot (17). The slot having side walls (17A,17B) parallel to a longitudinal direction (A17) of the slot. At least one cathode collector bar system (3,5) is also provided. The bar of the collector system is made of a metallic material, such as copper, here each bar system is at least partly received in a respective slot of the cathode body. Each bar system also has external side walls (36B,46B), which are in contact with said side walls of the slot. Each bar system comprises two distinct bars, also called individual bars (30,40,50,60), where each individual bar has an external sidewall (36B,46B) in contact with said respective side wall (17A,17B) of the slot. Each individual bar has an internal side wall (35,45), the internal side walls of said individual bars are mutually adjacent and maintaining means (8;108) are provided. The maintaining means maintain the location of the individual bars, so that said external side wall of each bar is firmly maintained in contact with a respective external side wall of the slot. The maintaining means may comprise a shim to locate the bar(s) in the slot. Immobilisation means (85,85,87, figure 16) may also be provided which can be removable fixation means to aid with the location of the bar(s) in the slot.

IPC 8 full level

C25C 3/06 (2006.01); **C25C 3/08** (2006.01); **C25C 3/16** (2006.01)

CPC (source: EP GB)

C25C 3/08 (2013.01 - EP GB); **C25C 3/16** (2013.01 - EP GB)

Citation (search report)

See references of WO 2021240353A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

GB 202007782 D0 20200708; GB 2595460 A 20211201; CA 3179811 A1 20211202; EP 4158084 A1 20230405; WO 2021240353 A1 20211202

DOCDB simple family (application)

GB 202007782 A 20200526; CA 3179811 A 20210525; EP 21811764 A 20210525; IB 2021054511 W 20210525