

Title (en)

PROCESS AND APPARATUS FOR CONVERTING SPENT POTLINERS INTO A GLASS FRIT, AND RESULTING PRODUCTS

Title (de)

VERFAHREN UND VORRICHTUNG ZUR UMWANDLUNG VON AUSKLEIDUNGEN IN EINE GLASFRICTE UND RESULTIERENDE PRODUKTE

Title (fr)

PROCEDE ET APPAREIL PERMETTANT DE TRANSFORMER DES BRASQUES USEES EN FRITTE DE VERRE ET PRODUITS AINSI OBTENUS

Publication

EP 1853529 A1 20071114 (EN)

Application

EP 05714448 A 20050216

Priority

CA 2005000199 W 20050216

Abstract (en)

[origin: WO2006086868A1] A pyrometallurgical process and apparatus for converting spent potliners from aluminium manufacturing or other hazardous materials into an amorphous sodium and calcium fluoroaluminosilicate glass frit and high carbon material. Spent potliners, silica or siliceous material, and a calcium oxide source are fed into the non-burner end of a counter-current rotating kiln. The material is heated to destroy cyanides, convert fluoride salts to calcium fluoride and form a homogeneous liquid material. Carbon is then physically separated from the material. The material is then vitrified to produce a valuable glass frit and a high carbon material.

IPC 8 full level

A62D 3/00 (2007.01); **C01B 7/20** (2006.01); **C01B 33/08** (2006.01); **C01F 11/22** (2006.01); **C03C 8/14** (2006.01); **C04B 18/04** (2006.01); **C04B 28/00** (2006.01); **C04B 28/04** (2006.01); **C04B 28/08** (2006.01)

CPC (source: EP)

A62D 3/33 (2013.01); **B09B 3/29** (2022.01); **C01B 33/26** (2013.01); **C01F 11/22** (2013.01); **C03B 3/02** (2013.01); **C03B 3/023** (2013.01); **C03B 5/005** (2013.01); **C03C 1/002** (2013.01); **C04B 7/243** (2013.01); **C04B 28/021** (2013.01); **A62D 2101/45** (2013.01); **A62D 2101/49** (2013.01); **A62D 2203/10** (2013.01); **Y02P 40/10** (2015.11); **Y02P 40/50** (2015.11); **Y02W 30/91** (2015.05)

Citation (search report)

See references of WO 2006086868A1

Cited by

CN105112938A

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2006086868 A1 20060824; AU 2005327495 A1 20060824; EP 1853529 A1 20071114

DOCDB simple family (application)

CA 2005000199 W 20050216; AU 2005327495 A 20050216; EP 05714448 A 20050216