

Title (en)

PROCESS FOR OBTAINING TEREPHTHALIC ACID AND RECOVERING SODIUM HYDROXIDE FROM A SODIUM TEREPHTHALATE SOLUTION PRODUCED FROM REUSED POLYETHYLENE TEREPHTHALATE (PET)

Title (de)

VERFAHREN ZUR GEWINNUNG VON TEREPHTHALSÄURE UND RÜCKGEWINNUNG VON NATRIUMHYDROXID AUS EINER NATRIUMTEREPHTHALATLÖSUNG AUS WIEDERVERWENDETEM POLYETHYLENTEREPHTHALAT (PET)

Title (fr)

PROCÉDÉ POUR L'OBTENTION D'ACIDE TÉRÉPHTALIQUE ET RÉCUPÉRATION D'HYDROXYDE DE SODIUM D'UNE SOLUTION DE TÉRÉPHTALATE DE SODIUM PRODUIT À PARTIR DE POLYÉTHYLÈNE TÉRÉPHTALATE (PET) DE RÉUTILISATION

Publication

**EP 4353876 A1 20240417 (EN)**

Application

**EP 21944450 A 20210609**

Priority

IB 2021055081 W 20210609

Abstract (en)

A process for obtaining terephthalic acid and recovering sodium hydroxide from a sodium terephthalate solution produced from reused PET, which includes the following steps: i) placing a sodium terephthalate solution obtained from a PET hydrolysis process on the anodic side; ii) placing an alcoholic medium on the cathodic side of the electrolytic cell; iii) applying an electric current that circulates through the anodic side and the cathodic side of the electrolytic cell and; iv) recovering terephthalic acid and sodium hydroxide. The method has been designed to not generate the by-products generated in the PET recycling process, and thus have a "green" process. Furthermore, the method described does not require large amounts of water or energy.

IPC 8 full level

**C25B 1/16** (2006.01); **C25B 3/00** (2021.01)

CPC (source: EP)

**C25B 1/16** (2013.01); **C25B 3/00** (2013.01)

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)

**EP 4353876 A1 20240417**; CA 3221682 A1 20221215; CN 117858981 A 20240409; WO 2022259026 A1 20221215

DOCDB simple family (application)

**EP 21944450 A 20210609**; CA 3221682 A 20210609; CN 202180101442 A 20210609; IB 2021055081 W 20210609