Title (en)

METAL TITANIUM PRODUCTION METHOD AND METAL TITANIUM ELECTRODEPOSIT

Title (de)

VERFAHREN ZUR HERSTELLUNG VON METALLISCHEM TITAN UND ELEKTROPLATTIERTE METALLTITANBESCHICHTUNG

Title (fr)

PROCÉDÉ DE PRODUCTION DE TITANE MÉTALLIQUE ET DÉPÔT ÉLECTROLYTIQUE DE TITANE MÉTALLIQUE

Abstract (en)

Provided is a method for producing metal titanium by molten salt electrolysis using a conductive material containing titanium, aluminum, oxygen and other impurities. A method for producing metal titanium, wherein a refining process includes: a rough electrodeposition step of performing a molten salt electrolysis using an electrode containing a TiAlO conductive material in a chloride bath Bf to obtain a titanium-containing electrodeposit TC ; and one or more refinement electrodeposition steps of performing a molten salt electrolysis using an electrode containing the titanium-containing electrodeposit TC in a chloride bath Bf, and wherein at least one of the chloride bath Bf used for the rough electrodeposition step and the chloride bath Bf used for the refinement electrodeposition step contains 30 mol % or more of magnesium chloride.

IPC 8 full level

C25C 3/28 (2006.01); C22B 34/12 (2006.01)

CPC (source: EP US)

C22B 34/1277 (2013.01 - EP); C22B 34/1295 (2013.01 - EP); C25C 3/28 (2013.01 - EP US)

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 4332273 A1 20240306; CA 3217057 A1 20221103; JP WO2022230403 A1 20221103; US 2024191381 A1 20240613; WO 2022230403 A1 20221103

DOCDB simple family (application)

EP 22795326 A 20220314; CA 3217057 A 20220314; JP 2022011426 W 20220314; JP 2023517132 A 20220314; US 202218287893 A 20220314