

Title (en)

ULTRASTABLE ANODES FOR ALUMINUM PRODUCTION CELLS

Title (de)

ANODEN MIT HOHER STABILITÄT FÜR ALUMINIUMPRODUKTIONSZELLEN

Title (fr)

ANODES ULTRASTABLES POUR CELLULES DE PRODUCTION D'ALUMINIUM

Publication

**EP 0931182 A1 19990728 (EN)**

Application

**EP 97942654 A 19970923**

Priority

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- US 9615176 W 19960923

Abstract (en)

[origin: WO9812363A1] An anode for the electrowinning of aluminum by the electrolysis of alumina dissolved in a molten fluoride electrolyte comprises a porous micropyrretic reaction product of nickel, aluminum, iron, copper and at least one additive element selected from silicon, tin, zinc, vanadium, indium, hafnium, tungsten, elements from the lanthanide series starting from praesodymium, and misch metal. The micropyrretic reaction product contains metallic and intermetallic phases, with a composite oxide surface produced in-situ by anodic polarization of the porous micropyrretic reaction product in a molten fluoride electrolyte containing dissolved alumina, or by high temperature treatment in an oxidizing gas. The composite oxide surface usually comprises an iron-rich relatively dense outer portion and an aluminate-rich relatively porous inner portion.

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IPC 8 full level

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CPC (source: EP)

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