

Title (en)

NON-CARBON METAL-BASED ANODES FOR ALUMINIUM PRODUCTION CELLS

Title (de)

KOHLNSTOFF-FREIE ANODEN AUF BASIS VON METALLEN FÜR ALUMINIUM-ELEKTROGEWINNUNGSZELLEN

Title (fr)

ANODES METALLIQUES EXEMPTES DE CARBONE POUR CELLULES DE PRODUCTION D'ALUMINIUM

Publication

EP 1049818 A1 20001108 (EN)

Application

EP 99900110 A 19990119

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- US 12620698 A 19980730
- US 12684098 A 19980730
- US 12635998 A 19980730

Abstract (en)

[origin: WO9936594A1] A non-carbon metal-based anode of a cell for the electrowinning of aluminium comprising an electrically conductive metal substrate resistant to high temperature, the surface of which becomes passive and substantially inert to the electrolyte, and a coating adherent to the metal substrate making the surface of the anode electrochemically active for the oxidation of oxygen ions present at the electrolyte interface. The substrate metal may be selected from nickel, cobalt, chromium, molybdenum, tantalum and the Lanthanide series. The active constituents of the coating are for example oxides such as spinels or perovskites, oxyfluorides, phosphides or carbides, in particular ferrites. The active constituents may be coated onto the substrate from a slurry or suspension containing colloidal material and the electrochemically active material.

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