

Title (en)  
METAL-BASED ANODES FOR ALUMINIUM ELECTROWINNING CELLS

Title (de)  
ANODEN AUF BASIS VON METALLEN FÜR ELEKTROLYSEZELLEN ZUR ALUMINIUMGEWINNUNG

Title (fr)  
ANODES A BASE METALLIQUE POUR CELLULES D'EXTRACTION ELECTROLYTIQUE D'ALUMINIUM

Publication  
**EP 1240364 A2 20020918 (EN)**

Application  
**EP 00977813 A 20001206**

Priority  
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Abstract (en)  
[origin: WO0142534A2] An anode of a cell for the electrowinning of aluminium comprises a nickel-iron alloy substrate having a nickel metal rich outer portion with an electrolyte pervious integral nickel-iron oxide containing surface layer which adheres to the nickel metal rich outer portion of the nickel-iron alloy and which in use is electrochemically active for the evolution of oxygen. The oxide surface layer has a thickness such that, during use, the voltage drop therethrough is below the potential of dissolution of nickel-iron oxide. The nickel metal rich outer portion may contain cavities some or all of which, after oxidation, are partly or completely filled with iron oxides to form iron oxide containing inclusions.

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