5510008

STABLE ANODES FOR ALUMINIUM PRODUCTION CELLS

Sekhar Jainagesh A; Liu James J; Duruz Jean-Jacques Cincinnati, OH, UNITED STATES

An anode for the electrowinning of aluminium by the electrolysis of alumina dissolved in a molten fluoride electrolyte comprises a porous combustion synthesis product of nickel, aluminium, iron, copper and optional doping elements in the amounts 60-90 wt % nickel, 3-10 wt % aluminium, 5-20 wt % iron, 0-15 wt % copper and 0-5 wt % of one or more of chromium, manganese, titanium, molybdenum, cobalt, zirconium, niobium, yttrium, cerium, oxygen, boron and nitrogen. The combustion synthesis product contains metallic and intermetallic phases. A composite oxide surface is produced in-situ by anodic polarization of the porous combustion synthesis product in a molten fluoride electrolyte containing dissolved alumina. The in-situ formed composite oxide surface comprises an iron-rich relatively dense outer portion, and an aluminate-rich relatively porous inner portion.

5510058

ELECTRO-SENSITIVE COMPOSITION

Edamura Kazuya; Otsubo Yasufumi Tokyo, JAPAN assigned to Fujikura Kasei Co Ltd

An electro-sensitive composition comprising a fluorine compound having a predetermined structure, and an electrically insulating medium capable of dissolving this fluorine compound when a voltage is applied thereto, is disclosed. This electro-sensitive composition has a straight chain or cyclic fluorocarbon, and fluorine compound particles possessing dissociable polarity, dispersed in an electrically insulating medium; by means of the application of a voltage to this electro-sensitive composition, the transparency and viscosity thereof can be easily adjusted.

5510181

LUBRICANT AND MAGNETIC RECORDING MEDIUM USING THE SAME

Nabata Yoshiyuki Tochigi, JAPAN assigned to Kao Corporation

A fluorine-containing lubricant having a linear structure devoid of polar groups at the terminals of its molecule, and has at least two polar groups on the intermediate carbon chain of the molecule is disclosed. A magnetic recording medium employing the lubricant is also disclosed.

5510406

FLUOROPOLYMER COMPOSITION FOR COATING AND ARTICLE COATED WITH THE SAME

Matsuo Masashi; Yamauchi Masaru; Matsunaga Nobuko; Yokotsuka Shunsuke; Unoki Masao Kanagawa, JAPAN assigned to Asahi Glass Company Ltd

A fluoropolymer composition for coating, which comprises a polymer having a fluorine-containing cycloaliphatic structure and at least one coupling group in its molecule and a solvent for dissolving said polymer.

5510410

AUTODEPOSITION COATING COMPOSITION

Honda Takum; Naito Kazuhis; Koga Mitsuyuk Kanagawa, JAPAN assigned to Henkel Corporation

PCT No. PCT/US93/00138 Sec. 371 Date Jul. 29, 1994 Sec. 102(e) Date Jul. 29, 1994 PCT Filed Jan. 15, 1993 PCT Pub. No. WO93/15155 PCT Pub. Date Aug. 5, 1993. The invention is an aqueous autodeposition coating composition that produces a film that has a better adherence and corrosion resistance than the films formed by the prior-art coating compositions, but