

Title (en)

ALUMINIUM-WETTABLE POROUS CERAMIC MATERIAL

Title (de)

ALUMINIUMBENETZBARES PORÖSES KERAMISCHES MATERIAL

Title (fr)

MATERIAU CERAMIQUE POREUX MOUILLABLE PAR L'ALUMINIUM

Publication

**EP 1366214 B1 20041215 (EN)**

Application

**EP 02702625 A 20020304**

Priority

- IB 0200668 W 20020304
- IB 0100320 W 20010307

Abstract (en)

[origin: US2004149569A1] A material, for instance used as an aluminium-wettable component (21,21', 41,41', 51), in particular of a cell for the electrowinning of aluminium (60), comprises an openly porous or reticulated ceramic structure whose surface during use is exposed to and wetted by molten aluminium. The structure is made of ceramic material inert and resistant to molten aluminium, such as alumina, and an aluminium-wettable material that comprises metal oxide and/or partly oxidised metal, in particular of manganese, iron, cobalt, nickel, copper or zinc, which is/are reactable with molten aluminium to form a surface layer containing alumina, aluminium and metal derived from the metal oxide and/or partly oxidised metal. The ceramic structure comprises a coating of the aluminium-wettable material on the inert and resistant ceramic material, or is made of a mixture of the inert and resistant material and of the aluminium-wettable ceramic material. The aluminium-wetted component is suitable for use as a cathode (21,21'), as a sidewall (41,41') or as another component (51) which during use is exposed to molten aluminium (60) and/or electrolyte (5), or another oxidising and/or corrosive media at high temperature.

IPC 1-7

**C25C 3/08**

IPC 8 full level

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CPC (source: EP US)

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