

Title (en)

Microstructure and method of manufacturing the same

Title (de)

Mikrostruktur und Herstellungsverfahren dafür

Title (fr)

Microstructure et procédé de fabrication correspondant

Publication

**EP 1967616 A1 20080910 (EN)**

Application

**EP 07023950 A 20071211**

Priority

JP 2007040811 A 20070221

Abstract (en)

Disclosed is a method of manufacturing a microstructure, wherein an aluminum substrate surface is subjected at least to, in order, (A) an anodizing treatment for anodizing the aluminum substrate surface to form an anodized film bearing micropores; and (B) a heating treatment for heating the anodized film formed in the anodizing treatment (A) at a temperature of at least 50°C for at least 10 minutes, whereby the microstructure bearing the micropores at a surface of the anodized film. The method is capable of obtaining porous alumina membrane filters which are excellent in resistance to acids and alkalis with high filtration flow rate.

IPC 8 full level

**C25D 11/18** (2006.01)

CPC (source: EP)

**C25D 11/18** (2013.01); **C25F 3/20** (2013.01); **C25D 11/20** (2013.01)

Citation (applicant)

- US 2708655 A 19550517
- T. D. BROCK, MEMBRANE FILTRATION, SCI. TECH, 1983
- HIDEKI MASUDA, NEW TECHNOLOGY OF POROUS MEMBRANES USING ANODIZATION, 1995
- "Aluminum Handbook", 2001, ALUMINUM ASSOCIATION, pages: 164 - 165
- JITSUMU HYOMEN GIJUTSU, PRACTICE OF SURFACE TECHNOLOGY, vol. 33, no. 3, 1986, pages 32 - 38

Citation (search report)

- [XY] US 2006049059 A1 20060309 - CHAO CHUEN-GUANG [TW], et al
- [X] EP 0216543 A1 19870401 - FURUKAWA ALUMINIUM [JP]
- [X] EP 1715085 A2 20061025 - FUJI PHOTO FILM CO LTD [JP]
- [X] EP 0363138 A1 19900411 - ALCAN INT LTD [CA]
- [X] US 3488262 A 19700106 - FORESTEK CLARENCE W
- [X] GB 2158098 A 19851106 - KOBE STEEL LTD
- [XY] WANG X ET AL: "Fabrication and characterization of anodic aluminum oxide template", MICROELECTRONIC ENGINEERING, ELSEVIER PUBLISHERS BV., AMSTERDAM, NL, vol. 66, no. 1-4, 1 April 2003 (2003-04-01), pages 166 - 170, XP004421513, ISSN: 0167-9317

Cited by

US11512400B2; US11447887B2; US2021002783A1; US11932956B2; US10434602B2; US10941503B2; US11617981B1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

**EP 1967616 A1 20080910; EP 1967616 B1 20130828; EP 1967616 B8 20131002; CN 101275264 A 20081001; JP 2008202112 A 20080904**

DOCDB simple family (application)

**EP 07023950 A 20071211; CN 200710160897 A 20071227; JP 2007040811 A 20070221**