

Title (en)  
Aerosol generators

Title (de)  
Aerosolerzeuger

Title (fr)  
Générateurs d'aérosol

Publication  
**EP 2607524 A1 20130626 (EN)**

Application  
**EP 11394026 A 20111221**

Priority  
EP 11394026 A 20111221

Abstract (en)

An aperture plate (10) is formed from a palladium nickel alloy comprising about 89% palladium and about 11% nickel. There is a generally fine substantially equiaxed grain microstructure throughout the thickness of the aperture plate. The average grain width (W) is in the range of from 0.2 µm to 2.0 µm, in some cases from 0.2 µm to 1.0 µm. For optimum results the average grain width is approximately 0.5 µm. Because the grain structure is equiaxed (L/W =1) the grain length (L) is the same as the grain width. The improved aperture plate (10) extends the life of nebulisers, eliminates the risk of premature and unpredictable failure of a nebuliser in service, eliminates the risk of product returns from hospitals and patients, and eliminates the possible risk of fragments of the aperture plate breaking free from the nebulizer.

IPC 8 full level  
**B05B 17/06** (2006.01); **C22C 5/04** (2006.01); **C25D 3/56** (2006.01)

CPC (source: EP)  
**B05B 17/0646** (2013.01); **C22C 5/04** (2013.01); **C25D 1/08** (2013.01); **C25D 3/567** (2013.01)

Citation (applicant)

- US 6235177 B1 20010522 - BORLAND SCOTT [US], et al
- US 2007023547 A1 20070201 - BORLAND SCOTT [US], et al
- US 7066398 B2 20060627 - BORLAND SCOTT [US], et al
- US 5164740 A 19921117 - IVRI YEHUDA [US]
- US 5586550 A 19961224 - IVRI YEHUDA [US], et al
- US 5758637 A 19980602 - IVRI YEHUDA [US], et al
- CALLISTER D.W: "Materials Science and Engineering-An Introduction", 2007, JOHN WILEY AND SONS, pages: 227 - 245
- BOWER A.: "Applied Mechanics of Solids", 2010, CRC PRESS, pages: 694
- E. PAUL DEGARMO: "Materials and Processes in Manufacturing", 1979, MCMILLAN PUBLISHING CO., INC.

Citation (search report)

- [A] WO 2009042187 A1 20090402 - NEKTAR THERAPEUTICS [US], et al
- [A] US 4628165 A 19861209 - NOBEL FRED I [US], et al
- [A] LU ET AL: "Grain refinement in the solidification of undercooled Ni-Pd alloys", JOURNAL OF CRYSTAL GROWTH, ELSEVIER, AMSTERDAM, NL, vol. 309, no. 1, 31 October 2007 (2007-10-31), pages 103 - 111, XP022323988, ISSN: 0022-0248, DOI: 10.1016/J.JCRYSGRO.2007.09.005

Cited by  
EP3042982A1; EP2794964B1; EP3075271B1; EP3075271B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)

**EP 2607524 A1 20130626; EP 2607524 B1 20140910**

DOCDB simple family (application)

**EP 11394026 A 20111221**