

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
27 December 2007 (27.12.2007)

PCT

(10) International Publication Number  
**WO 2007/148240 A3**

(51) International Patent Classification:

A61L 27/28 (2006.01) A61L 31/08 (2006.01)  
A61L 27/30 (2006.01) A61F 2/82 (2006.01)  
A61L 27/54 (2006.01) A61C 8/00 (2006.01)

(21) International Application Number:

PCT/IB2007/051869

(22) International Filing Date: 16 May 2007 (16.05.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

06114127.1 17 May 2006 (17.05.2006) EP  
06118544.3 7 August 2006 (07.08.2006) EP

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(81) Designated States (unless otherwise indicated, for every

kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every

kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:

12 June 2008

(54) Title: ANISOTROPIC NANOPOROUS COATINGS FOR MEDICAL IMPLANTS

(57) Abstract: The present invention relates to a process for fabricating a porous coatings with controlled structure in the micro and nano-size domain. In particular, but not exclusively, it relates to a process for fabricating coatings with an anisotropic pore size distribution and to coatings obtained using such coatings. It describes in particular the use of ink-jet method to deposit in a controlled way such coatings. It also relates to porous coatings with controlled structure in the micro and nano-size domain. The coating has a thickness between 10 nanometres and 10 millimetres and its porosity is created in such a way that the pore size distribution is anisotropic. It finally describes objects covered with this coating.



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# INTERNATIONAL SEARCH REPORT

International application No  
PCT/IB2007/051869

## A. CLASSIFICATION OF SUBJECT MATTER

INV. A61L27/28 A61L27/30 A61L27/54 A61L31/08 A61F2/82  
A61C8/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A61L A61F A61C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, EMBASE, BIOSIS

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                                                                                                                                                                                                                                                                                                                                                                                    | Relevant to claim No. |
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☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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Date of the actual completion of the international search

7 April 2008

Date of mailing of the international search report

22/04/2008

Name and mailing address of the ISA/

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## INTERNATIONAL SEARCH REPORT

International application No

PCT/IB2007/051869

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                                                                                                                    | Relevant to claim No. |
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| A         | EP 1 319 416 A1 (HEHRLEIN CHRISTOPH DR<br>[DE]) 18 June 2003 (2003-06-18)<br>abstract<br>column 2<br>column 4, line 2.- line 4<br>examples 1-3<br>claims 1-14                                                         | 1-54                  |
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| A         | US 6 709 379 B1 (BRANDAU WOLFGANG [DE] ET<br>AL) 23 March 2004 (2004-03-23)<br>abstract<br>column 2, line 61 - column 3, line 58<br>column 8, line 4 - line 10<br>column 8, line 61 - column 9, line 2                | 1-54                  |

## INTERNATIONAL SEARCH REPORT

International application No  
PCT/IB2007/051869

| Patent document<br>cited in search report |    | Publication<br>date | Patent family<br>member(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Publication<br>date                                                                                                                                                                                                                                                                                                                                                                                                |
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