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AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, 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, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

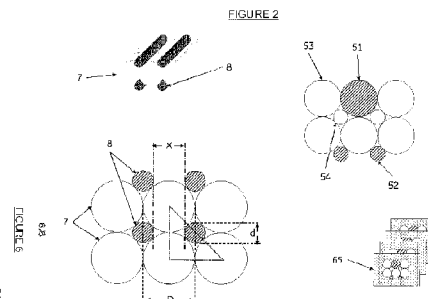
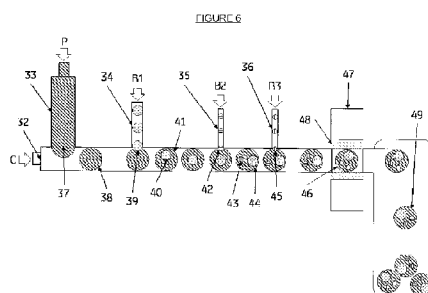
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- with international search report (Art. 21(3))
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(54) Title: MICROSCOPY IMAGING PHANTOMS



(57) Abstract: The invention relates to imaging phantoms for validation, optimisation and calibration of microscopy instrumentation and software used for analysis of microscope images. The materials and methods of the invention find particular use in high content screening and high content analysis.

INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2008/064656

A. CLASSIFICATION OF SUBJECT MATTER

INV. G01N21/64

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)

G01N

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	B.W. POGUE, M.S. PATTERSON: "Review of tissue simulating phantoms for optical spectroscopy, imaging, dosimetry" JOURNAL OF BIOMEDICAL OPTICS, vol. 11, no. 4, 2006, pages 041102-1-041102-16, XP002511682 cited in the application	1,3-7
Y	the whole document	18-21
A		15-17
X	US 2002/098588 A1 (SAMMAK PAUL [US] ET AL) 25 July 2002 (2002-07-25) figures 1d,2f	1,3-7
A	paragraphs [0005] - [0007], [10.20], [0023], [0025], [0031], [0032], [0042], [0046] - [0050], [0067] - [0072]	13,15-21
Y		10-12, 16-21
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Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

16 June 2009

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Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2008/064656

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02/063269 A (ARGOSE INC [US]; APRUZZESE WILLIAM [US]; TREPAGNIER PIERRE [US]; GRAY) 15 August 2002 (2002-08-15)	1
A	page 7, lines 18-24; figure 1	13,15-17
A	EP 1 227 312 A (THYSSENKRUPP STAHL AG [DE]) 31 July 2002 (2002-07-31) the whole document	13,15-17
A	JP 59 015844 A (ASAHI CHEMICAL IND; ASAHI MEDICAL CO) 26 January 1984 (1984-01-26) abstract	2
A	WO 2005/057185 A (FOSS ANALYTICAL AB [SE]; COWE IAN [GB]; SPRINGSTEEN ARTHUR [US]) 23 June 2005 (2005-06-23) figure 1	13,15-17
A	JM LERNER: "Calibration and validation of confocal spectral imaging systems" CYTOMETRY PART A, vol. 62a, 2004, pages 8-34, XP002511683 the whole document	15-21
A	US 2006/275182 A1 (HUDSON GORDON S [US]) 7 December 2006 (2006-12-07) paragraphs [0010] - [0016]; figures 1-3	13,15-17
X	R. LANGER, J.P. VACANTI: "Tissue engineering" SCIENCE, vol. 260, 14 May 1993 (1993-05-14), pages 920-926, XP002532346	1,8,9, 14,15
Y	the whole document	10-12, 16-21
A	EP 0 368 436 A (HAMAMATSU PHOTONICS KK [JP]) 16 May 1990 (1990-05-16) page 5, lines 9-17; figure 5	1,8-12, 14-21

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2008/064656

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1, 2, 3-7,13, 15-21(when depending on claim 13)

providing stable bi-dimensional image phantoms of cell cultures

2. claims: 8-12, 14, 15-21(when depending on claim 14)

providing stable three-dimensional image phantoms of single cells

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2008/064656

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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