

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
27 December 2002 (27.12.2002)

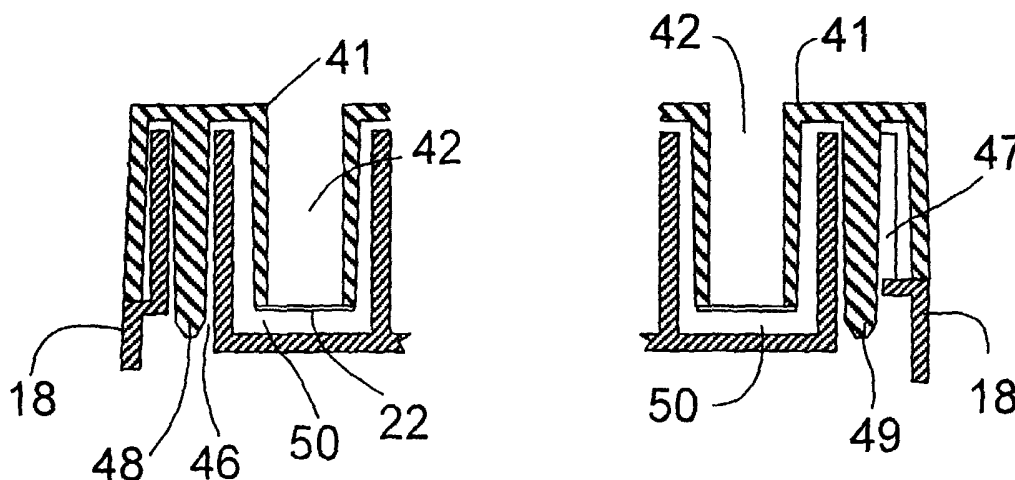
PCT

(10) International Publication Number  
**WO 02/102965 A3**

- (51) International Patent Classification<sup>7</sup>: **B01L 3/00**, C12M 1/20
- (21) International Application Number: PCT/US02/18375
- (22) International Filing Date: 11 June 2002 (11.06.2002)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
60/298,244 14 June 2001 (14.06.2001) US  
60/298,263 14 June 2001 (14.06.2001) US  
60/298,240 14 June 2001 (14.06.2001) US  
60/298,265 14 June 2001 (14.06.2001) US  
60/298,264 14 June 2001 (14.06.2001) US
- (71) Applicant: **MILLIPORE CORPORATION** [US/US]; HUBBARD, John Dana, 80 Ashby Road, Bedford, MA 01730 (US).
- (72) Inventors: **DESILETS, Kenneth**; 21 Colonial Drive, Westford, MA 01886 (US). **PHILLIPS, Jeanne**; 28 Gustavus Street, Leominster, MA 01453 (US). **RISING, Donald**; 76 Treaty Elm Lane, Stow, MA 01775 (US).
- (74) Agent: **HUBBARD, John, Dana**; Millipore Corporation, 80 Ashby Road, Bedford, MA 01730 (US).
- (81) Designated State (*national*): JP.
- (84) Designated States (*regional*): European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR).
- Published:  
— with international search report
- (88) Date of publication of the international search report:  
8 May 2003

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: MULTIWELL TEST APPARATUS



(57) Abstract: A multiwell test apparatus formed of a multiwell filter plate having a plurality of wells and a first feeding plate and a second receiver plate is provided. The wells of the multiwell filter plate each have an open bottom surface to which a membrane is attached, at least one first access hole providing access to the feeding/receiver plate below, a pair of alignment pins designed to fit alignment holes in the feeding/receiver plates in a particular arrangement. The first feeding plate is a single well plate or a multiwell plate used solely for feeding. The second receiver plate is a multiwell plate having the same number of wells as the filter plate and aligned so as to receive the wells of the filter plate therein used as the assaying plate. The use of alignment holes in the feeding/receiver plates and alignment posts in the filter plate ensure precise alignment of the plates when together.

WO 02/102965 A3

## INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US 02/18375

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 B01L3/00 C12M1/20

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)

IPC 7 B01L C12M G01N C12N

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, PAJ, MEDLINE

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages                 | Relevant to claim No. |
|------------|----------------------------------------------------------------------------------------------------|-----------------------|
| A          | US 5 801 055 A (HENDERSON DOUGLAS P)<br>1 September 1998 (1998-09-01)<br>the whole document<br>--- | 1-23                  |
| A          | US 6 159 368 A (FRYE WARD K ET AL)<br>12 December 2000 (2000-12-12)<br>the whole document<br>---   | 1                     |
| A          | US 5 650 323 A (ROOT DAVID)<br>22 July 1997 (1997-07-22)<br>abstract<br>---                        | 1                     |
| A          | US 5 265 754 A (DALBO EMIL J)<br>30 November 1993 (1993-11-30)<br>abstract<br>-----                | 1,2                   |



Further documents are listed in the continuation of box C.



Patent family members are listed in 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.
- \* & document member of the same patent family

Date of the actual completion of the international search

10 January 2003

Date of mailing of the international search report

21/01/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Tiede, R

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 02/18375

| Patent document<br>cited in search report |   | Publication<br>date | Patent family<br>member(s)                                                                                                                                                    | Publication<br>date                                                                                                                      |
|-------------------------------------------|---|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| US 5801055                                | A | 01-09-1998          | CA 2245030 A1<br>EP 0902084 A2<br>JP 11137243 A                                                                                                                               | 10-03-1999<br>17-03-1999<br>25-05-1999                                                                                                   |
| US 6159368                                | A | 12-12-2000          | AU 1518400 A<br>CA 2346860 A1<br>EP 1124637 A2<br>JP 2002528265 T<br>WO 0025922 A2<br>US 2002150505 A1<br>US 2002179520 A1<br>US 6419827 B1<br>US 6338802 B1<br>US 6451261 B1 | 22-05-2000<br>11-05-2000<br>22-08-2001<br>03-09-2002<br>11-05-2000<br>17-10-2002<br>05-12-2002<br>16-07-2002<br>15-01-2002<br>17-09-2002 |
| US 5650323                                | A | 22-07-1997          | DE 69224383 D1<br>DE 69224383 T2<br>EP 0591436 A1<br>JP 6509224 T<br>WO 9300420 A1                                                                                            | 12-03-1998<br>20-05-1998<br>13-04-1994<br>20-10-1994<br>07-01-1993                                                                       |
| US 5265754                                | A | 30-11-1993          | GB 2274271 A , B                                                                                                                                                              | 20-07-1994                                                                                                                               |