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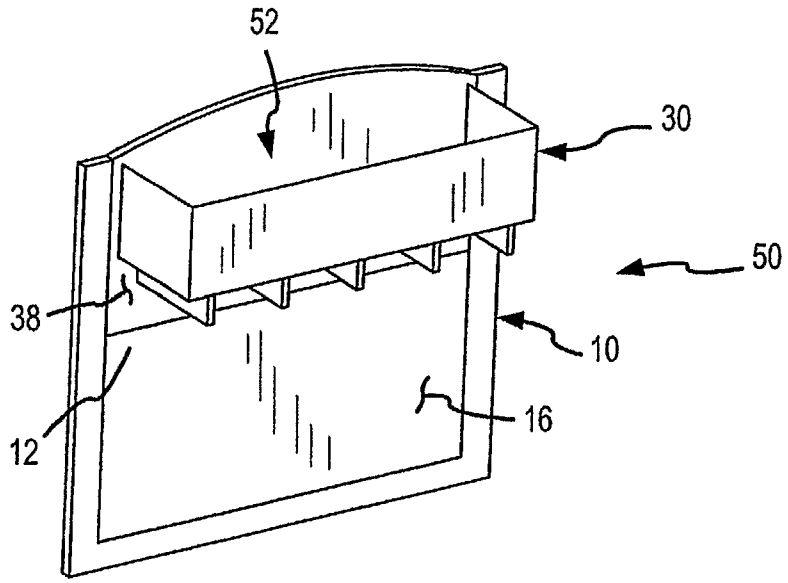
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: GEL CASSETTE ADAPTER



(57) Abstract: A gel cassette adaptor (30) for use with an electrophoresis system gel cassette (10) is disclosed herein. The gel cassette adaptor allows a single gel cassette to be compatible with more than one electrophoresis system. In one example embodiment, the gel cassette adaptor includes an open sided trough having an attachment perimeter and an attachment flange (38) coupled to the attachment perimeter. The attachment flange is designed to be compatible for mating with a gel cassette that is compatible with a first electrophoresis system. After attachment of the gel cassette adaptor, the resulting gel cassette assembly (50) is compatible with a second electrophoresis system. Also provided is a gel cassette that includes a stabilizer post that connects the cassette plates (16) to maintain a constant gap width between the plates during electrophoresis. In reducing deformation of the gap space between plates during gel runs, the stabilizer post can improve electrophoresis results for wide format gels.

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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2006/014529

A. CLASSIFICATION OF SUBJECT MATTER
INV. G01N27/28

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	US 5 112 470 A (SYLVESTER ET AL) 12 May 1992 (1992-05-12) column 4, line 57 - column 5, line 24 figures	1-15, 25-37
X	US 6 027 628 A (YAMAMURA ET AL) 22 February 2000 (2000-02-22) column 4, line 8 - line 54 figures	1-15, 25-37
X	US 2003/106798 A1 (SEABROOK ELIZABETH JEAN ET AL) 12 June 2003 (2003-06-12) paragraph [0079] - paragraph [0086]	16-20
X	US 6 416 644 B1 (ANDERSON N. LEIGH ET AL) 9 July 2002 (2002-07-09) column 5, line 11 - line 15 column 5, line 66 - column 6, line 13	16-20

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[X] Further documents are listed in the continuation of Box C.

[X] 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.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
6 October 2006	23/10/2006

Name and mailing address of the ISA/	Authorized officer
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	Baranski, Jörg

Form PCT/ISA/210 (second sheet) (April 2005)

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2006/014529

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 339 972 A (EASTMAN KODAK COMPANY) 2 November 1989 (1989-11-02) column 6, line 6 - line 12	1-20, 25-31

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2006/014529

Box 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. [X] Claims Nos.: 21-24
because they relate to subject matter not required to be searched by this Authority, namely:

The subject matter of claims 21 - 24 is a method of doing business. Therefore no search is required according to Article 17(2)(a)(i) and Rule 39 PCT.

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 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 all searchable claims.

2. [X] As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

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.

[ ] 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: 1-15,25-37

gel cassette adapter
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2. claims: 16-20

electrophoresis removing the gel from the gel cassette

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2006/014529

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5112470 A	12-05-1992	WO 9210744 A1	25-06-1992
US 6027628 A	22-02-2000	NONE	
US 2003106798 A1	12-06-2003	WO 03006505 A1	23-01-2003
		CA 2453388 A1	23-01-2003
		CN 1538973 A	20-10-2004
		JP 2005504740 T	17-02-2005
US 6416644 B1	09-07-2002	US 6398932 B1	04-06-2002
		US 6554991 B1	29-04-2003
		US 2001023826 A1	27-09-2001
EP 0339972 A	02-11-1989	AU 612481 B2	11-07-1991
		AU 3375889 A	02-11-1989
		CA 1338056 C	13-02-1996
		DE 68919895 D1	26-01-1995
		DE 68919895 T2	27-07-1995
		DK 204989 A	29-10-1989
		IL 90117 A	18-08-1993
		JP 2049154 A	19-02-1990
		JP 2651242 B2	10-09-1997
		US 4828669 A	09-05-1989