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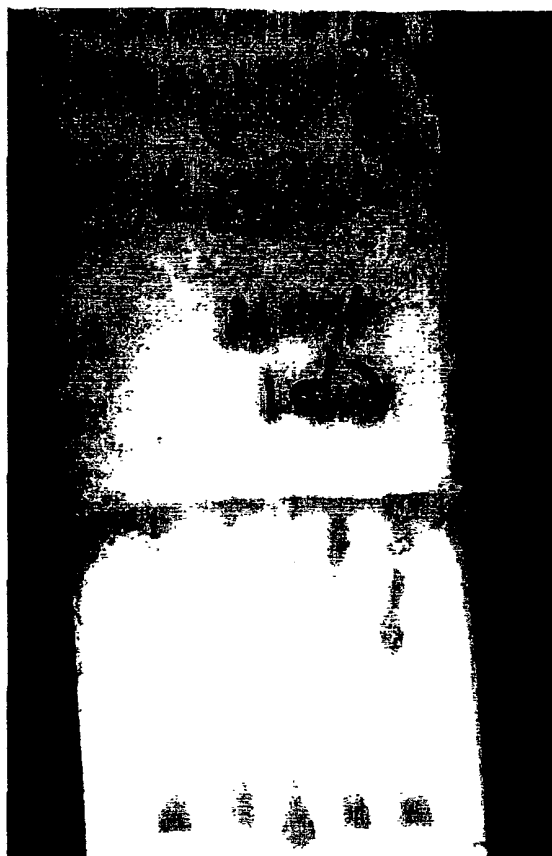
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(54) Title: HIGH THROUGHPUT CHEMICAL PROFILING



(57) Abstract: Methods are described for rapid profiling of characteristics of chemical compounds that are useful indicators of the potential efficacy of individual chemical compounds for a particular intended use and/or desired route of administration, as well as information relative to potential chemical and physical stability. The methods use small (<10 mg) amounts of a chemical compound to obtain a complete profile of characteristics. A database generated from the profiles can be searched to identify chemical compounds having a desired set of characteristics.

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patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 00/24093

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12M1/34 G01N33/543 G01N27/447

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 G01N C12M

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 98 59360 A (YIP TAI TUNG ;CIPHERGEN BIOSYSTEMS INC (US); HUTCHENS T WILLIAM (U) 30 December 1998 (1998-12-30) page 3, last paragraph -page 5, paragraph 3 page 6, paragraphs 2,4,5 page 11, paragraph 3 ---	1-3, 16-28, 32,40
Y	GB 2 281 122 A (ZENECA LTD) 22 February 1995 (1995-02-22) page 1, paragraph 4 -page 2, paragraph 2 page 3, paragraph 7 page 4, paragraph 3 page 7, paragraph 1 figure 4; examples 3,4 --- -/--	1-3, 16-28, 32,40



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

11 December 2000

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Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 00/24093

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>W0 99 15888 A (ACLARA BIOSCIENCES INC) 1 April 1999 (1999-04-01) page 42, line 12 -page 44, line 7 figure 7 page 44, line 20-29 ---</p>	1
A	<p>W0 97 07245 A (RABANI ELY MICHAEL) 27 February 1997 (1997-02-27) page 2, line 3-8 page 28, line 1-23 page 21, line 20-38 page 26, line 29-32 page 28, line 7-35 page 29, line 26-32 page 33, line 1-9 ---</p>	1
A	<p>W0 99 14368 A (WHITEHEAD BIOMEDICAL INST) 25 March 1999 (1999-03-25) page 2, line 1-8 page 3, line 1-17 page 5, line 15-25 ---</p>	1
A	<p>US 4 056 359 A (JANIN PIERRE R) 1 November 1977 (1977-11-01) column 1, line 50 -column 2, line 21 column 3, line 66 -column 4, line 12 figure 6 ---</p>	1
A	<p>W0 89 03430 A (TERRAPIN DIAGNOSTICS LTD) 20 April 1989 (1989-04-20) abstract ---</p>	1
A	<p>US 4 752 562 A (SHEIMAN MARK I ET AL) 21 June 1988 (1988-06-21) column 3, line 47 -column 4, line 32 ---</p>	1
A	<p>STAN H -J ET AL: "On-line coupling of liquid chromatography with thin-layer chromatography" JOURNAL OF CHROMATOGRAPHY A,NL,ELSEVIER SCIENCE, vol. 819, no. 1-2, 11 September 1998 (1998-09-11), pages 35-44, XP004145895 ISSN: 0021-9673 abstract page 39 ---</p>	1
A	<p>US 4 671 870 A (NAGY ATTILA ET AL) 9 June 1987 (1987-06-09) abstract; figure 8 -----</p>	1

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 00/24093

Box I Observations where certain claims were found unsearchable (Continuation of item 1 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 II Observations where unity of invention is lacking (Continuation of item 2 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. ☐ 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.:

1-34, 40-43

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: 1-34,40-43

Detection unimpeded by several substances on the same spot

2. Claims: 35-36

Selection of effectors to determine chemical stability

3. Claims: 37-38

Selection of effectors to determine physical stability

4. Claim : 39

Selection of effectors to determine bioavailability

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 00/24093

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Information on patent family members

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