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

(19) World Intellectual Property Organization

International Bureau



(10) International Publication Number WO 2011/112222 A3

(43) International Publication Date 15 September 2011 (15.09.2011)

- (51) International Patent Classification: *G01N 21/00* (2006.01) *G01N 30/00* (2006.01)
- (21) International Application Number:

PCT/US2010/060321

(22) International Filing Date:

14 December 2010 (14.12.2010)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

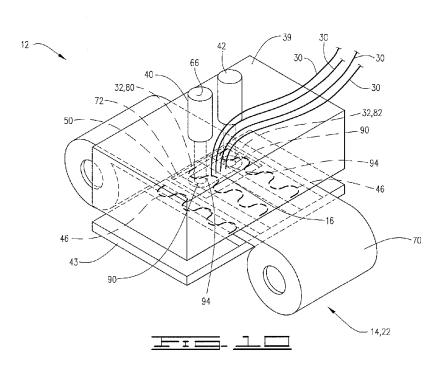
61/286,529 15 December 2009 (15.12.2009) US

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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, 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, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, 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, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: MULTI-ANALYTE DETECTION SYSTEM AND METHOD



(57) Abstract: The invention provides for a multiple analyte detector that is capable of detecting and identifying explosive, chemical or biological substances having multiple analytes with a single system having multiple reporters. The reporters include fluorescent polymers, conducting polymers, metal oxide elements, electrochemical cells, etc. The reporters may be combinations of other reporters that are optimized for broadband detection.

Published:

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

17 November 2011

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 10/60321

			PCT/US 10	/60321
IPC(8) - USPC -	SSIFICATION OF SUBJECT MATTER G01N 21/00, 30/00 (2011.01) 436/43, 164 to International Patent Classification (IPC) or to both r	national classification a	nd IPC	
	DS SEARCHED			
Minimum de	ocumentation searched (classification system followed by IN 21/00, 30/00 (2011.01)	classification symbols)		
	ion searched other than minimum documentation to the ex 1N 21/00, 30/00 (2011.01) /43, 164	xtent that such document	s are included in the	fields searched
PubWEST;P	ata base consulted during the international search (name of PGPB, USPT, EPAB, JPAB, Thomson Innovation, Goog plosive, hazardous, dangerous, warfare, fiber optics, an adics	leScholar, GooglePaten	its	
C. DOCU	MENTS CONSIDERED TO BE RELEVANT			
Category*	Citation of document, with indication, where a	ppropriate, of the releva	ant passages	Relevant to claim No.
Y	US 7,419,636 B2 (ACKER et al.) 2 September 2008 col 7, In 24-30, col 17, In 59-67	(02.09.2008) Title, Fig. 2	2, col 3, ln 30-40,	1-40
Y	US 2008/0248578 A1 (DEANS et al.) 9 October 2008 para [0041], para [0053], para [0064], para [0065], para [0069], para [0080], para [0102], para [0107]		0], para [0040],	1-40
Y	US 7,005,292 B2 (WILDING et al.) 28 February 2006 In 6-15, col 7, In 35-41, col 7, In 55-65, col 10, In 45-50		3, Fig. 17A, col 3,	1-40
Y	US 7,578,973 B2 (CALL et al.) 25 August 2009 (25.08 in 45-50, col 4, in 30-35, col 11, in 60-67, col 29, in 24 col 30, in 50-65, col 36, in 10-52, col 37, in 55-67, col	-30, col 29, ln 60-65,	A, Fig. 17B, col 2,	7-8, 10-15, 17 and 37-39
A	Sulfinert Coatings (2002) http://www.chromspec.com/g 2011	pdf/lit/59318a.pdf Retrie	ved 16 September	25
Y	US 2007/0243618 A1 (HATCHETT et al.) 18 October 2007 (18.10.2007) Abstract, para [0124]		27 and 29	
Y	US 5,491,097 A (RIBI et al.) 13 February 1996 (13.02.1996) col 20, in 20-25			34
Y	US 2009/0030617 A1 (SCHELL et al.) 29 January 2009 (29.01.2009) para [0085]			35
Further documents are listed in the continuation of Box C.				
* Special categories of cited documents: "A" document defining the general state of the art which is not considered date and not in conflict with the application but cited to understand				
	Particular relevance application or after the international atternational attention atte	"X" document of part	eory underlying the i icular relevance; the or cannot be conside	claimed invention cannot be ered to involve an inventive
cited to	ent which may throw doubts on priority claim(s) or which is establish the publication date of another citation or other reason (as specified)	"Y" document of part		claimed invention cannot be
"O" document referring to an oral disclosure, use, exhibition or other means "O" document referring to an oral disclosure, use, exhibition or other means to an oral disclosure, use, exhibition or other being obvious to a person skilled in the art				locuments, such combination e art
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	actual completion of the international search er 2011 (16.09.2011)	28 SEP 2011		
Name and mailing address of the ISA/US Authorized officer:				
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PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 10/60321

	tion). DOCUMENTS CONSIDERED TO BE RELEVANT	
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
A	US 6,211,524 B1 (VARDENY et al.) 3 April 2001 (03.04.2001) Fig. 13	1-40
4	US 6,230,545 B1 (ADOLPH et al.) 15 May 2001 (15.05.2001) col 6, ln 50-60	1-40
4	US 6,635,415 B1 (BOLLINGER et al.) 21 October 2003 (21.10.2003) Fig. 3	1-40
4	US 6,096,557 A (TANAKA et al.) 1 August 2000 (01.08.2000) col 8+	1-40
A	US 6,266,998 B1 (HACKENBERG) 31 July 2001 (31.07.2001) Fig. 2a	1-40
4	US 5,411,709 A (FURUKI et al.) 2 May 1995 (02.05.1995) Fig. 9, col 10	1-40
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