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DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
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KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG,
MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM,
PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC,
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TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE,

[Continued on next page]

(54) Title: SPECTRAL SIGNATURE DRUG DETECTION

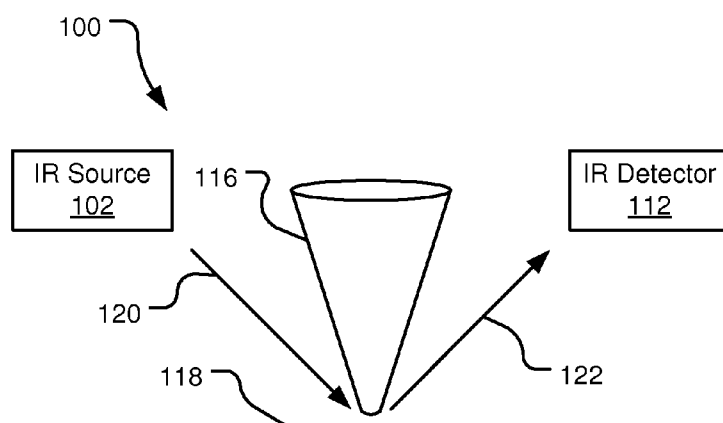


FIG. 1A

(57) Abstract: The technology dis-
closed herein may be used to detect
drugs with potential for abuse within a
human subject. This technology may be
particularly useful to discriminate
between drugs of abuse (326), cor-
responding psychoactive compounds
(328), and corresponding metabolite by-
products (330, 332), which are often
closely related and possess similar
chemical structures. The disclosed tech-
nology uses infrared light reflectance
characteristics particular to one or more
chemical compounds to be detected for
identification of those compounds with-
in the human subject.



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,
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PCT/US2015/047215**A. CLASSIFICATION OF SUBJECT MATTER****G01N 21/35(2006.01)i, G01N 21/3577(2014.01)i, G01N 1/44(2006.01)i**

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 21/35; A61B 5/097; G01J 5/02; G01J 3/44; G01N 1/44; C23C 16/00; G01N 21/3577

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: drug, detect, spectral signature, optic, reflect, human, infrared light, collect, detect, source, metabolite, specimen, discriminate, compound and abuse

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2012-0212735 A1 (PALMSKOG et al.) 23 August 2012 See paragraphs [0003]–[0023], [0038]–[0070], [0091]–[0134] and figures 1–9b.	1–3, 5–8, 11–15, 17, 19–21
Y		4, 9–10, 16, 18, 22
Y	US 2012-0247230 A1 (MCGILL et al.) 04 October 2012 See paragraphs [0011]–[0034], [0045]–[0046] and figures 1–3.	4, 9–10, 16, 18, 22
A	US 2003-0143326 A1 (BUBB et al.) 31 July 2003 See paragraphs [0023]–[0032], [0043]–[0048] and figures 1–8.	1–22
A	US 2012-0012750 A1 (SINBAR et al.) 19 January 2012 See paragraphs [0024]–[0046], [0096], [0102]–[0118] and figures 1–2.	1–22
A	US 2012-0157871 A1 (WALDEN et al.) 21 June 2012 See paragraphs [0003]–[0012] and figures 1a–1b.	1–22

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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"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

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"&" document member of the same patent family

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Information on patent family members

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