



(51) International Patent Classification:

A61K 9/00 (2006.01) G06K 5/00 (2006.01)
G08B 1/08 (2006.01) A61M 31/00 (2006.01)
G08B 13/14 (2006.01)

(21) International Application Number:

PCT/US2009/036231

(22) International Filing Date:

5 March 2009 (05.03.2009)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/034,085 5 March 2008 (05.03.2008) US

(71) Applicant (for all designated States except US): **PROTEUS BIOMEDICAL, INC.** [US/US]; 2600 Bridge Parkway, Suite 101, Redwood City, CA 94065 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ROBERTSON, Timothy** [US/US]; 2719 Sequoia Way, Belmont, CA 94002 (US). **ZDEBLICK, Mark, J.** [US/US]; 300 La Mesa Drive, Portola Valley, CA 94028 (US).

(74) Agent: **FIELD, Bret**; Bozicevic Field & Francis LLP, 1900 University Avenue, Suite 200, East Palo Alto, CA 94303 (US).

(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, 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, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

[Continued on next page]

(54) Title: MULTI-MODE COMMUNICATION INGESTIBLE EVENT MARKERS AND SYSTEMS, AND METHODS OF USING THE SAME

FIG. 1A

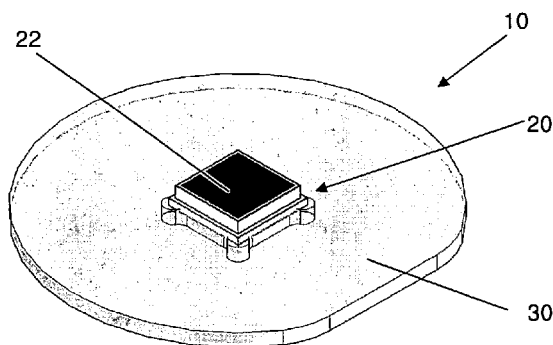
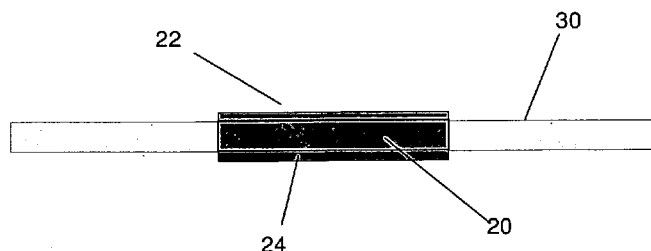


FIG. 1B



(57) Abstract: Aspects of the invention include multi-mode communication ingestible event marker devices. Ingestible event marker devices of the invention include an ingestible component comprising a conductive communication module and at least one additional non-conductive communication module. The non-conductive communication module may be integrated with the ingestible component or at least a portion or all of the non-conductive communication module may be associated with a packaging component of the ingestible event marker device. Additional aspects of the invention include systems that include the devices and one or more receivers, as well as methods of using the same.



(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (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, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- 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)*)

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

3 December 2009