

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
26 August 2021 (26.08.2021)



(10) International Publication Number
WO 2021/168272 A1

(51) International Patent Classification:
G21G 1/00 (2006.01)

(21) International Application Number:
PCT/US2021/018807

(22) International Filing Date:
19 February 2021 (19.02.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/979,886 21 February 2020 (21.02.2020) US

(71) Applicant: BRACCO DIAGNOSTICS INC. [US/US];
259 Prospect Plains Road, Building H, Monroe Township,
New Jersey 08831 (US).

(72) Inventor: NUNN, Adrian; 33 Mill Road, Lambertville,
New Jersey 08530 (US).

(74) Agent: LAVANWAY, Jr., Paul J. et al.; Fredrikson & By-
ron, P.A., 200 South Sixth Street, Suite 4000, Minneapolis,
Minnesota 55402 (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, BN, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN,
KP, KR, KW, 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, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, 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, RW, SD, SL, ST, SZ, TZ,
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, 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,

(54) Title: RADIOISOTOPE GENERATOR EARLY BREAKTHROUGH DETECTION

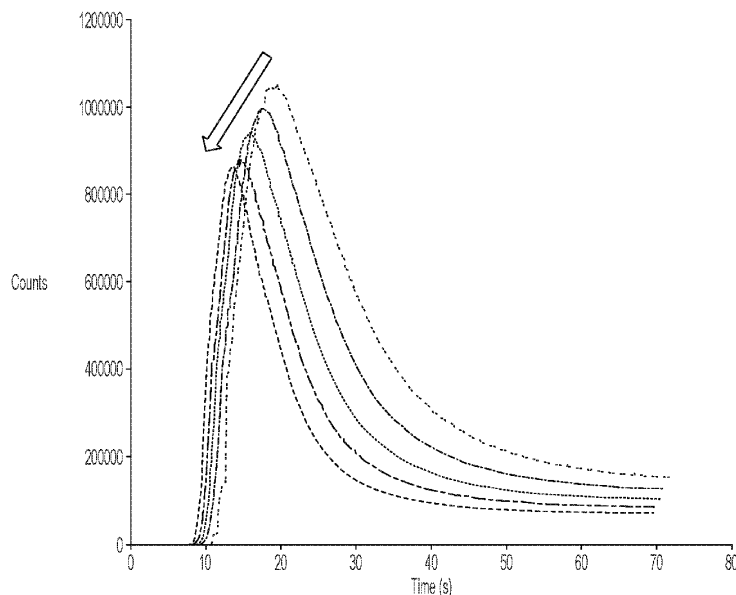


FIG. 4

(57) Abstract: An infusion system can include a radioisotope generator that generates a radioactive eluate via an elution, an activity detector configured to measure an activity of the radioactive eluate generated by the radioisotope generator, and a controller. The controller can analyze a radioactivity profile of the radioactive eluate to determine a characteristic of the profile indicative of breakthrough. The controller may issue a user alert, cease elution, or perform yet other actions based on the analysis.

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TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report (Art. 21(3))*