

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
18 July 2019 (18.07.2019)



(10) International Publication Number
WO 2019/136547 A1

- (51) International Patent Classification:
G01N 23/04 (2018.01) *G01N 23/10* (2018.01)
- (21) International Application Number:
PCT/CA2018/051674
- (22) International Filing Date:
28 December 2018 (28.12.2018)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
62/615,120 09 January 2018 (09.01.2018) US
16/229,860 21 December 2018 (21.12.2018) 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, 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, 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,

(54) Title: METHODS FOR REMOVING A BACKGROUND OBJECT FROM AN IMAGE

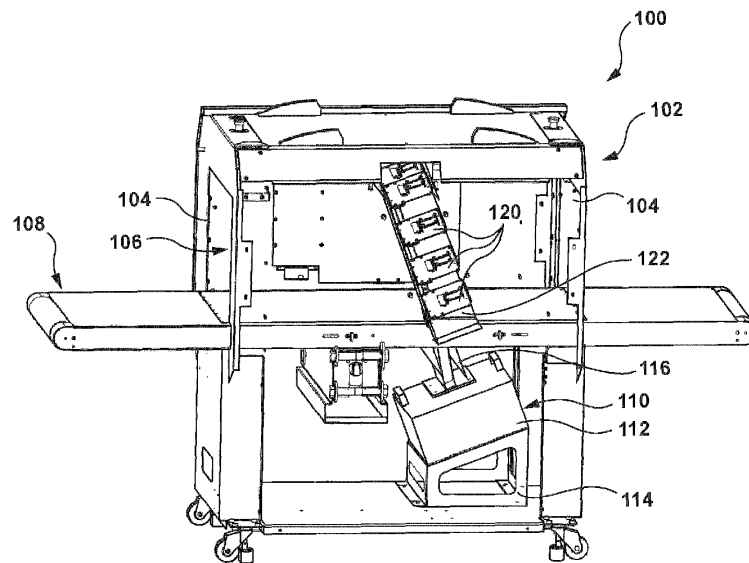


FIG. 1

(57) Abstract: There is provided a method for assigning an attribute to an unknown object overlapping with a predetermined background object. The unknown object is scanned overlapping with the background object within an x-ray scanning device to obtain a plurality of dual-energy attenuation images having attenuation information representing the background object and an overlap region wherein the background object and the unknown object overlap. The dual-energy attenuation images are decomposed into reference material equivalent path length images. The reference material equivalent path lengths representing the background object in the overlap region are determined and eliminated from the overlap region to provide reference material equivalent path length images having first and second reference material equivalent path lengths through only the unknown object.

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SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN,
TR, 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, 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, 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))