

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
13 January 2022 (13.01.2022)



(10) International Publication Number
WO 2022/008518 A1

(51) International Patent Classification:

G01N 23/2251 (2018.01) H01J 37/244 (2006.01)
H04N 5/32 (2006.01) G01T 1/24 (2006.01)

(21) International Application Number:

PCT/EP2021/068676

(22) International Filing Date:

06 July 2021 (06.07.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/050,628 10 July 2020 (10.07.2020) US
63/113,171 12 November 2020 (12.11.2020) US
63/151,585 19 February 2021 (19.02.2021) US

(71) Applicant: ASML NETHERLANDS B.V. [NL/NL]; P.O.
Box 324, 5500 AH Veldhoven (NL).

(72) Inventor: WANG, Yongxin; 80 W Tasman Drive, San
Jose, California 95134 (US).

(74) Agent: ASML NETHERLANDS B.V.; Corporate Intel-
lectual Property, P.O. Box 324, 5500 AH Veldhoven (NL).

(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: SENSING ELEMENT LEVEL CIRCUITRY DESIGN FOR ELECTRON COUNTING DETECTION DEVICE

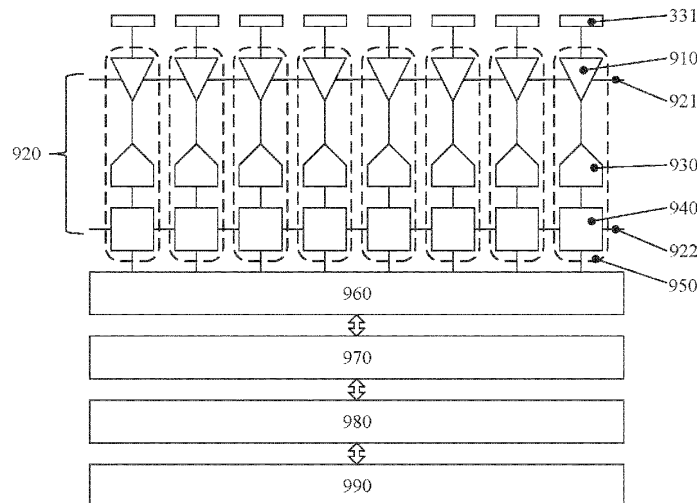


FIG. 9

(57) Abstract: A charged particle beam detector may include a circuit with a storage cell configured to receive a signal representing an output of a sensing element; a storage cell multiplexer configured to selectively transmit the signal representing the output of the sensing element to the storage cell; a threshold detector configured to compare the signal representing the output of the sensing element to a threshold; and a converter configured to perform signal processing on a signal transmitted from the storage cell.

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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))*