

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
16 June 2022 (16.06.2022)



(10) International Publication Number
WO 2022/125973 A1

(51) International Patent Classification:

G01N 21/64 (2006.01) H01L 27/146 (2006.01)
G01N 21/00 (2006.01) H01L 27/148 (2006.01)
G01N 21/77 (2006.01)

(21) International Application Number:

PCT/US2021/062929

(22) International Filing Date:

10 December 2021 (10.12.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/124,655 11 December 2020 (11.12.2020) US

(71) Applicant: **QUANTUM-SI INCORPORATED** [US/US];
530 Old Whitfield Street, Guilford, Connecticut 06437
(US).

(72) Inventor: **WEBSTER, Eric, A.G.**; 2139 Briarwood Drive,
Santa Clara, CA 95051 (US).

(74) Agent: **PRITZKER, Randy, J.** et al.; Wolf, Greenfield &
Sacks, P.C., 600 Atlantic Avenue, Boston, Massachusetts
02210-2206 (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,

(54) Title: INTEGRATED CIRCUIT WITH IMPROVED CHARGE TRANSFER EFFICIENCY AND ASSOCIATED TECHNIQUES

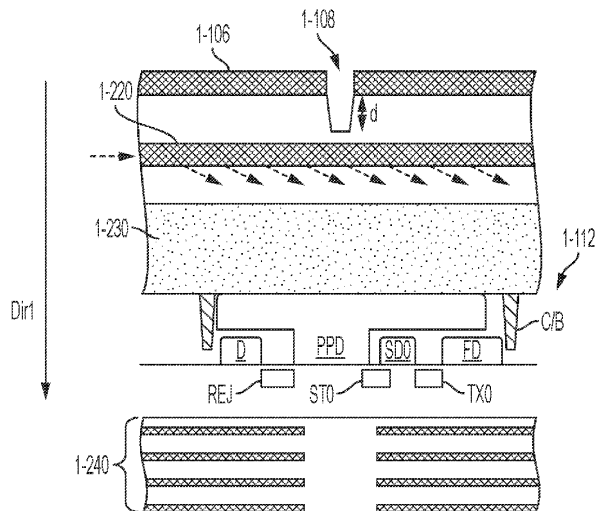


FIG. 1-2

(57) Abstract: The present disclosure provides techniques for improving the rate and efficiency of charge transfer within an integrated circuit configured to receive incident photons. Some aspects of the present disclosure relate to integrated circuits that are configured to induce one or more intrinsic electric fields that increase the rate and efficiency of charge transfer within the integrated circuits. Some aspects of the present disclosure relate to integrated circuits configured to induce a charge carrier depletion in the photodetection region(s) of the integrated circuits. In some embodiments, the charge carrier depletion in the photodetection region(s) may be intrinsic, in that the depletion is induced even in the absence of external electric fields applied to the integrated circuit. Some aspects of the present disclosure relate to processes for operating and/or manufacturing integrated devices as described herein.

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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, 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))