

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
03 October 2024 (03.10.2024)



(10) International Publication Number
WO 2024/205700 A1

(51) International Patent Classification:

G06T 7/00 (2006.01) *H01L 21/22* (2006.01)
G06V 10/764 (2022.01) *G06N 3/0464* (2023.01)
G06V 10/774 (2022.01) *G06N 3/044* (2023.01)
G05B 23/02 (2006.01)

(21) International Application Number:

PCT/US2024/012764

(22) International Filing Date:

24 January 2024 (24.01.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

18/128,487 30 March 2023 (30.03.2023) US

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(54) Title: DEFECT CLASSIFICATION OF PROCESSED WAFERS

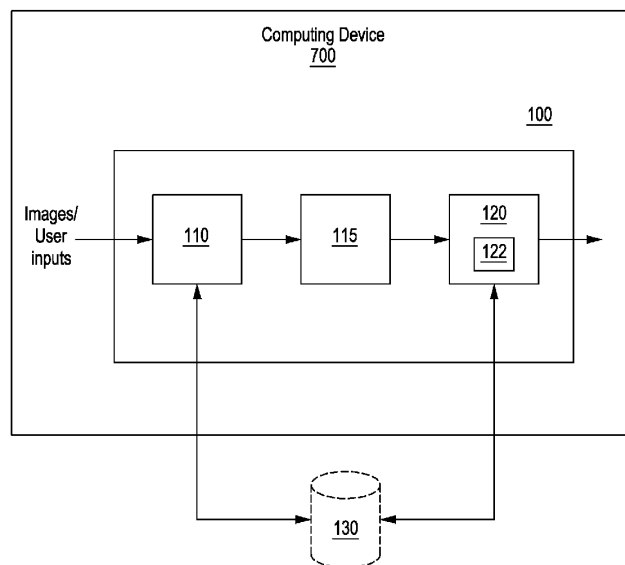


FIGURE 1

(57) Abstract: A method and apparatus for training a learning model for automatic defect detection and classification of at least a portion of a processed wafer include receiving labeled images having defect classification types and features for portions of a post-processed wafer, creating a first training set comprising the received labeled images, training the machine learning model to automatically classify wafer portions based on at least one detected defect in respective wafer portions using the first training set, receiving labeled wafer profiles having respective downstream yield data, creating a second training set comprising the labeled wafer profiles and training the machine learning model, using the second training set, to automatically determine a respective downstream yield of a wafer based on a respective wafer profile. The machine learning model can be applied to at least one unlabeled wafer image to determine at least one defect classification for at least one portion of a wafer.

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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, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, 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, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, 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, ME, 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))