

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
03 March 2022 (03.03.2022)



(10) International Publication Number
WO 2022/047235 A1

- (51) **International Patent Classification:**
G06N 20/00 (2019.01) *H01L 21/67* (2006.01)
- (21) **International Application Number:**
PCT/US2021/048061
- (22) **International Filing Date:**
27 August 2021 (27.08.2021)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
63/072,824 31 August 2020 (31.08.2020) US
17/379,728 19 July 2021 (19.07.2021) 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, 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, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

(54) **Title:** DETECTING AND CORRECTING SUBSTRATE PROCESS DRIFT USING MACHINE LEARNING

(57) **Abstract:** Methods and systems for detecting and correcting substrate process drift using machine learning are provided. Data associated with processing each of a first set of substrates at a manufacturing system according to a process recipe is provided as input to a trained machine learning model. One or more outputs are obtained from the trained machine learning model. An amount of drift of a first set of metrology measurement values for the first set of substrates from a target metrology measurement value is determined from the one or more outputs. Process recipe modification identifying one or more modifications to the process recipe is also determined. For each modification, an indication of a level of confidence that a respective modification to the process recipe satisfies a drift criterion for a second set of substrates is determined. In response to an identification of the respective modification with a level of confidence that satisfies a level of confidence criterion, the process recipe is updated based on the respective modification.

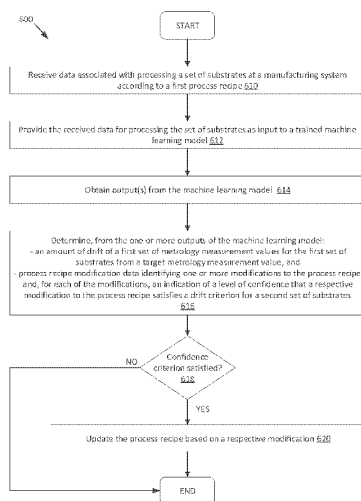


FIG. 6

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Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*