



(51) International Patent Classification:
G01N 15/01 (2024.01)

(21) International Application Number:
PCT/US2024/061430

(22) International Filing Date:
20 December 2024 (20.12.2024)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/613,437 21 December 2023 (21.12.2023) US

(71) Applicant: **LIFE TECHNOLOGIES CORPORATION**
[US/US]; 5823 Newton Dr., Carlsbad, California 92008 (US).

(72) Inventors: **MEYER, Matthew**; c/o Life Technologies Corporation, 5823 Newton Dr., Carlsbad, California 92008 (US). **FOX, Daniel**; c/o Life Technologies Corporation, 5823 Newton Dr., Carlsbad, California 92008 (US).

(74) Agent: **LAWSON, Molly**; Michael Best and Friedrich LLP, N19 W24133 Riverwood Drive, Ste. 200, Waukesha, Wisconsin 53188 (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, 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))

(54) Title: CELL SORTING BASED ON EVENT STATISTICS

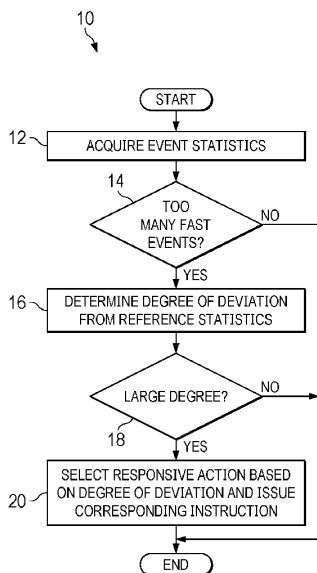


FIG. 1A

(57) Abstract: Methods and apparatuses of determining sorting efficiency for sorted particles. One method includes acquiring event statistics based on one or more signals generated from interrogating the particles in a fluid stream. The method also includes determining a degree of deviation of the event statistics from reference statistics and taking an automated responsive action in response to the degree of deviation exceeding a threshold level.