



(51) International Patent Classification:

G01K 11/22 (2006.01) G01K 1/08 (2006.01)
G01K 11/32 (2006.01) G01K 1/14 (2006.01)

(21) International Application Number:

PCT/US2023/062893

(22) International Filing Date:

20 February 2023 (20.02.2023)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/268,336 22 February 2022 (22.02.2022) US

(71) Applicant: **LAM RESEARCH CORPORATION**
[US/US]; 4650 Cushing Parkway, Fremont, California
94538 (US).

(72) Inventors: **PATIL, Ravikumar**; 4650 Cushing Parkway,
Fremont, California 94538 (US). **GOWDARU, Keerthi**;
4650 Cushing Parkway, Fremont, California 94538 (US).
PATIL, Pawan Murlidhar; 4650 Cushing Parkway, Fremont,
California 94538 (US). **LEESER, Karl Frederick**;
4650 Cushing Parkway, Fremont, California 94538 (US).

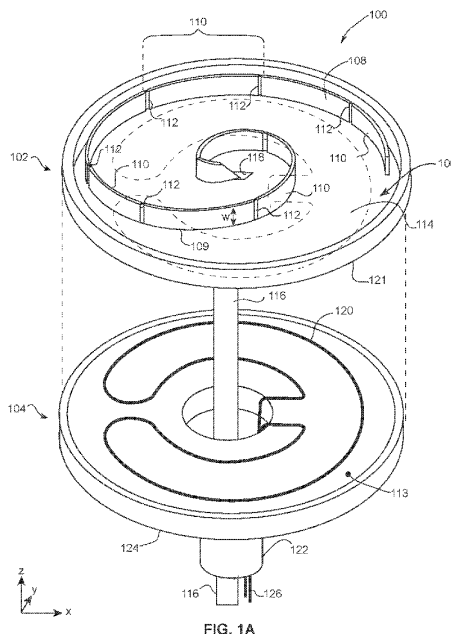
(74) Agent: **MUGHAL, Usman**; Mughal IP P.C., 1500 NW
Bethany Blvd., Suite 200, Beaverton, Oregon 97006 (US).

(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, 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).

(54) Title: SENSORS FOR SEMICONDUCTOR PROCESSING TOOLS

(57) Abstract: Described herein is a pedestal assembly comprising a platen and a sensor support plate below the platen. In at least one implementation, sensor support plate comprises a sensor compartment and a waveguide temperature sensor within the sensor compartment. In at least one implementation, waveguide temperature sensor comprises a temperature sensor comprising a first reflector structure and a second reflector structure. In at least one implementation, first reflector structure and second reflector structure are separated by a gauge length.



Published:

— with international search report (Art. 21(3))