

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
30 December 2021 (30.12.2021)



(10) International Publication Number
WO 2021/262993 A1

(51) International Patent Classification:
H01L 21/673 (2006.01)

(21) International Application Number:
PCT/US2021/038918

(22) International Filing Date:
24 June 2021 (24.06.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/044,700 26 June 2020 (26.06.2020) US

(71) Applicant: **GLOBALWAFERS CO., LTD.** [CN/CN];
No. 8 Industrial East Road 2, Science-Based Industrial Park,
Hsinchu (TW).

(72) Inventors: **BHAGAVAT, Sumeet**; 501 Pearl Drive, St. Pe-
ters, Missouri 63376 (US). **LIU, Qingmin**; 501 Pearl Drive,
St. Louis, Missouri 63376 (US).

(74) Agent: **SCHUTH, Richard A.** et al.; ARMSTRONG
TEASDALE LLP, 7700 Forsyth Blvd., Suite 1800, St.
Louis, Missouri 63105 (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,
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))

(54) Title: **WAFER BOATS FOR SUPPORTING SEMICONDUCTOR WAFERS IN A FURNACE**

(57) Abstract: A wafer boat for supporting a plurality of semiconduc-
tor wafers in a furnace is disclosed. The wafer boat includes a set of
fingers each having a contact protuberance which contacts and supports
a semiconducting wafer. The contact protuberances may be arranged in
a rotationally symmetric pattern about the wafer boat.

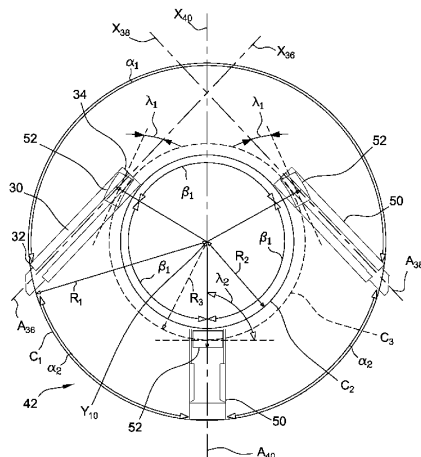


FIG. 2

WO 2021/262993 A1