

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
31 August 2023 (31.08.2023)



(10) International Publication Number
WO 2023/163648 A1

(51) International Patent Classification:

G02B 6/42 (2006.01) G02B 6/30 (2006.01)
G02B 6/36 (2006.01)

(21) International Application Number:

PCT/SG2022/050095

(22) International Filing Date:

28 February 2022 (28.02.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(71) Applicant: **ADVANCED MICRO FOUNDRY PTE. LTD.**, [SG/SG]; 11 Science Park Road Singapore Science Park II Singapore, 117685 Singapore (SG).

(72) Inventors: **XIE, Wu**; 11 Science Park Road Singapore, 117685 Singapore (SG). **LUO, Xianshu**; 11 Science Park Road Singapore, 117685 Singapore (SG). **LO, Guo-Qiang**; 11 Science Park Road Singapore, 117685 Singapore (SG).

(74) Agent: **AMICA LAW LLC**; 77 Robinson Road, #22-01, Robinson 77, Singapore 068896 (SG).

(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, JM, 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, 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, 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).

Declarations under Rule 4.17:

— of inventorship (Rule 4.17(iv))

(54) Title: FIBER ARRAY WITH SIDE POLISHING FOR IMPROVED FIBER POSITION WITH WAFER SUBSTRATE OR CHIP

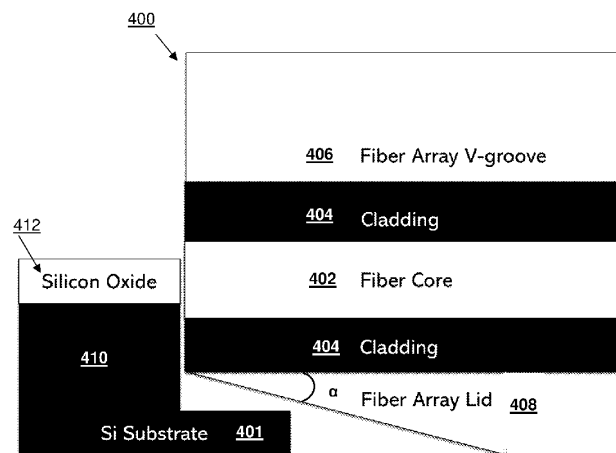


FIG. 4

(57) Abstract: A fiber array for edge coupling of at least one optical fiber with at least one wafer substrate is provided. The fiber array includes an optical fiber core; a cladding covering the optical fiber core; and a polished and tapered lid at the bottom of the cladding.

[Continued on next page]

WO 2023/163648 A1

Published:

- with international search report (Art. 21(3))
- in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE