

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
16 November 2023 (16.11.2023)



(10) International Publication Number
WO 2023/217592 A1

(51) International Patent Classification:
H01L 21/67 (2006.01) H01L 21/60 (2006.01)
H01L 23/00 (2006.01)

(21) International Application Number:
PCT/EP2023/061567

(22) International Filing Date:
02 May 2023 (02.05.2023)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2031849 13 May 2022 (13.05.2022) NL

(71) Applicant: BOSCHMAN TECHNOLOGIES B.V.
[NL/NL]; Stenograaf 3, 6921 EX Duiven (NL).

(72) Inventors: PAPEN, Edwin Lambertus Maria; Ruur-
loseweg 34, 7251 LK Vorden (NL). DE BEIJER, Jo-
hannes Cornelis; Slangenburgerstraat 25, 6686 CM Door-
nenburg (NL).

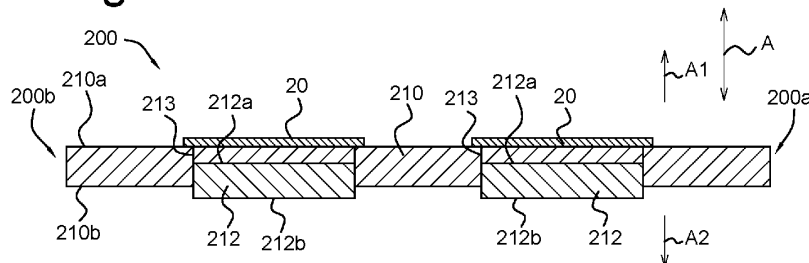
(74) Agent: NEDERLANDSCH OCTROOIBUREAU et al.;
P.O. Box 29720, 2502 LS The Hague (NL).

(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,

(54) Title: MICRO-CONTROLLED ENVIRONMENT CARRIER WITH PEDESTALS

Fig. 2B



(57) Abstract: The invention provides a component carrier (200) and a method thereof for carrying one or more components (20) to be processed in a component processing apparatus like a press sintering apparatus, and comprising a component support (210). The component support (210) comprises one or more positioning openings (213) formed through the component support (210) from a top surface (210a) of the component support to a bottom surface (210b) of the component support, wherein each positioning opening (213) defines a component position for holding a component to be processed and a component held in the component position is exposed at the top surface (210a) of the component support, and, one or more movable pedestals (212) associated with the one or more positioning openings (213), respectively, wherein each movable pedestal (212) is received within the associated positioning openings (213) for moving along a direction A between the top and bottom surfaces of the component support (210) to bring a top end (212a) of the movable pedestal into and out of contact with a component held in the component position defined by the positioning opening (213), and wherein a bottom end (212b) of each pedestal is exposed at a bottom surface (210b) of the component support for contacting a heat source for heating the pedestal (212) and the respective component when in contact with the pedestal (212).

WO 2023/217592 A1

[Continued on next page]

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))*
- *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))*