

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
28 April 2022 (28.04.2022)



(10) International Publication Number
WO 2022/084292 A1

(51) International Patent Classification:

C23C 14/02 (2006.01) C23C 16/40 (2006.01)
C23C 14/08 (2006.01) C23C 16/455 (2006.01)
C23C 16/02 (2006.01)

(21) International Application Number:

PCT/EP2021/078906

(22) International Filing Date:

19 October 2021 (19.10.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

10 2020 006 407.8

19 October 2020 (19.10.2020) DE

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(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))
- 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))

(54) Title: CARBON DOPED METAL OXYFLUORIDE (C:M-O-F) LAYER AS PROTECTION LAYER IN FLUORINE PLASMA ETCH PROCESSES

Figure 1

Element	#6-8741-CF ₄ /O ₂ (10/90)	#6-8742 - CF ₄ /O ₂ (30/70)
C	1.3	1.3
O	54.9	42.3
F	14.4	28.2
Y	29.4	28.2

(57) Abstract: The present invention relates to an article comprising: - a substrate; - a protective film overlaying at least part of the substrate, the film comprising a fluorinated metal oxide, containing one or more elements of the Group III and/or Group IV elements of the periodical system of elements, characterized in that the protective film comprises the fluorinated metal oxide with a carbon doping with a carbon concentration not lower than 0.1at% and not higher than 10at%, preferably not lower than 0.5at% and more preferably not higher than 2.5at%, wherein the article is a plasmaetch chamber component and/or part and preferably an article of the group formed by electrostatic chuck, a ring, a process kit ring, a single ring, a chamber wall, a shower head, a nozzle, a lid, a liner, a window, a baffle or a fastener.

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