



(51) International Patent Classification:

C01B 7/20 (2006.01) *C25B 15/02* (2006.01)
C23C 16/44 (2006.01) *C25B 1/24* (2006.01)

(21) International Application Number:

PCT/EP2011/054338

(22) International Filing Date:

22 March 2011 (22.03.2011)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

10157904.3 26 March 2010 (26.03.2010) EP

(71) Applicant (for all designated States except US): **SOLVAY SA** [BE/BE]; Rue de Ransbeek, 310, B-1120 Brussels (BE).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **PAGANIN, Maurizio** [IT/BE]; Avenue François Folie, 28, B-1180 Brussels (BE).

(74) Agents: **MROSS, Stefan** et al.; Solvay SA, Intellectual Property Department, Rue de Ransbeek, 310, B-1120 Bruxelles (BE).

(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, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, 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, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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, 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))

(88) Date of publication of the international search report:

7 June 2012

(54) Title: METHOD FOR THE SUPPLY OF FLUORINE

(57) Abstract: Elemental fluorine is used as etching agent for the manufacture of electronic devices, i.a., semiconductor devices, micro-electromechanical devices, thin film transistors, flat panel displays and solar panels, and as chamber cleaning agent mainly for PECVD apparatus. For this purpose, fluorine often is produced on-site. The invention provides a process wherein the contamination of the elemental fluorine with gaseous impurities, such as air or moisture, is prevented by producing it on site and delivering it to the point of use under a pressure higher than ambient pressure.

