

(19) World Intellectual Property Organization
International Bureau



162162

(43) International Publication Date
23 May 2002 (23.05.2002)

PCT

(10) International Publication Number
WO 02/40984 A1

(51) International Patent Classification⁷: **G01N 27/64,**
C01B 23/00

(21) International Application Number: PCT/IT01/00561

(22) International Filing Date:
8 November 2001 (08.11.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
MI2000A002479
17 November 2000 (17.11.2000) IT

(71) Applicant (for all designated States except US): **SAES
GETTERS S.P.A.** [IT/IT]; Viale Italia, 77, I-20020 Lainate
(IT).

(72) Inventors; and

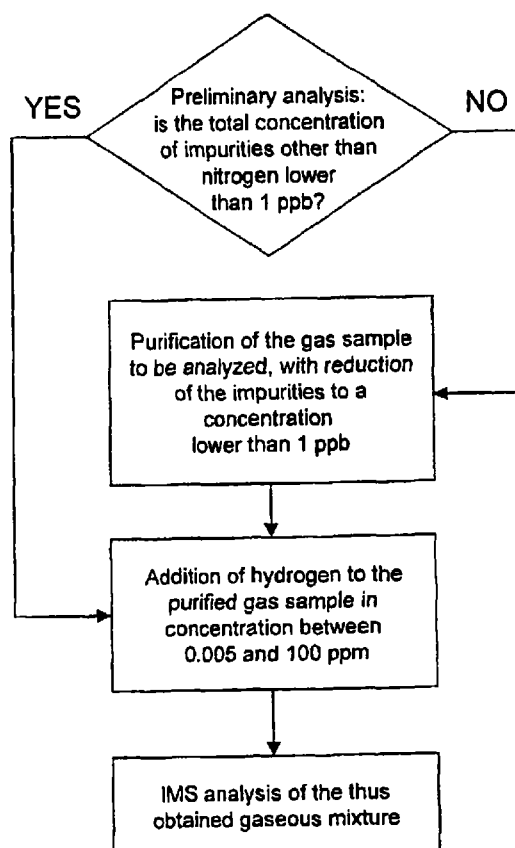
(75) Inventors/Applicants (for US only): **PUSTERLA, Luca**
[IT/IT]; Via Archimede, 42, I-20129 Milano (IT). **STI-
MAC, Robert** [US/US]; c/o PCP, Inc., 2155 Indian Road,
West Palm Beach, FL 33409-3287 (US). **BONUCCI, An-
tonio** [IT/IT]; Via Antonio Cecehov, 21, I-20151 Milano
(IT). **SUCCI, Marco** [IT/IT]; Via Lo Monaco, 9, I-20131
Milano (IT).

(74) Agents: **ADORNO, Silvano**; Società Italiana Brevetti
S.p.A, Via Carducci, 8, I-20123 Milano et al. (IT).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG,

[Continued on next page]

(54) Title: A METHOD FOR MEASURING THE CONCENTRATION OF NITROGEN IN ARGON BY MEANS OF ION MO-
BILITY SPECTROMETRY



(57) Abstract: A method for carrying out nitrogen analysis by ion-
ization mobility spectroscopy, at concentrations of few parts per
billion (ppb) in argon is described. The method involves the addi-
tion of hydrogen in concentration of at least 5 ppb and lower than
100 parts per million (ppm) to the argon to be analysed; the hydro-
gen addition step is possibly preceded by a purification operation of
the argon flow, so as to reduce the total concentration of impurities
other than nitrogen under 1 ppb.



G00002

WO 02/40984 A1

SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (regional): ARIPO patent (GI, GM, KE, LS, MW, MZ, SD, SI, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.