

(51) International Patent Classification:
H01J 27/00 (2006.01)(21) International Application Number:
PCT/US2011/026463(22) International Filing Date:
28 February 2011 (28.02.2011)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/308,676 26 February 2010 (26.02.2010) US(71) Applicant (for all designated States except US):
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(US).(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).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

- with international search report (Art. 21(3))

[Continued on next page]

(54) Title: PLASMA MASS SPECTROMETRY WITH ION SUPPRESSION

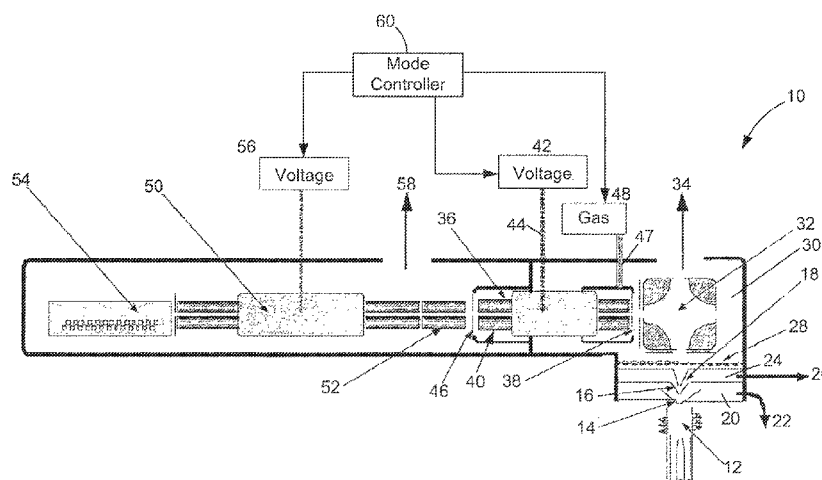


FIG. 1

(57) Abstract: A mass spectrometer system is provided that is configurable for operation in both a Kinetic Energy Discrimination (KED) and Dynamic Reaction Cell (DRC). A pressurized or collision cell included in the mass spectrometer encloses a quadrupole and is coupled to a source of both inert and reactive gas. To operate in the KED mode, the collision cell can be filled with a quantity of the inert gas and an energy barrier formed between the collision cell and a downstream mass analyzer. To operate instead in the DRC mode, the collision cell can be filled with a quantity of gas that is reactive with the interferer ions only. Mass filtering of the product ions can then transmit proportionally more of the analyte ions to the downstream mass analyzer. A mode controller coordinates the two modes of operation.



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- *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))*