

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
10 November 2022 (10.11.2022)



(10) International Publication Number
WO 2022/235915 A1

(51) International Patent Classification:

G01N 1/22 (2006.01) G01N 33/00 (2006.01)
G01N 30/96 (2006.01)

(21) International Application Number:

PCT/US2022/027847

(22) International Filing Date:

05 May 2022 (05.05.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/185,812 07 May 2021 (07.05.2021) US

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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, IQ, IR, IS, IT, JM, 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).

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

(54) Title: MULTISTAGE GAS SAMPLING TRAP AND DETECTION OF SULFUROUS SPECIES CONTAMINANT

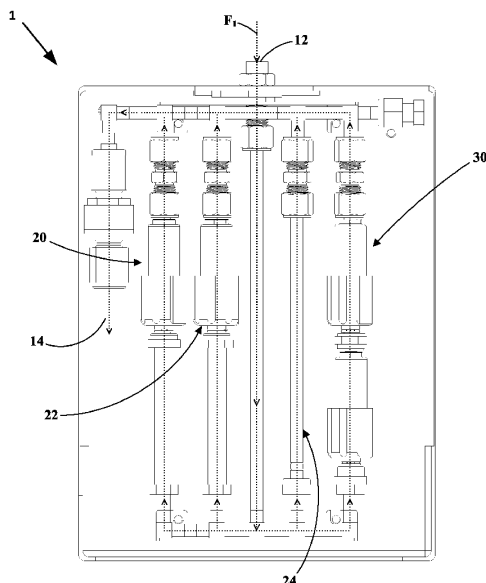


Figure 1

(57) Abstract: A gas sampling trap includes a first stage and a second stage. The first stage includes a metal salt that reacts with sulfurous species to produce acidic gas. The second stage configured to receive the acidic gas produced in the first stage. An adsorbent substrate in the second stage adsorbs the acidic gas. A method of sampling a gas includes directing gas onto a metal stage within a first stage to produce acidic gas, directing the acidic gas into the second stage, and adsorbing the acidic gas in the second stage with an adsorbent substrate. A method of detecting a concentration of sulfurous species in a gas includes sampling the gas with a sampling trap, desorbing adsorbed acidic gas from an adsorbent substrate of the sampling trap with a solvent, and testing the solvent with ion chromatography.

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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))*