

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
16 January 2003 (16.01.2003)

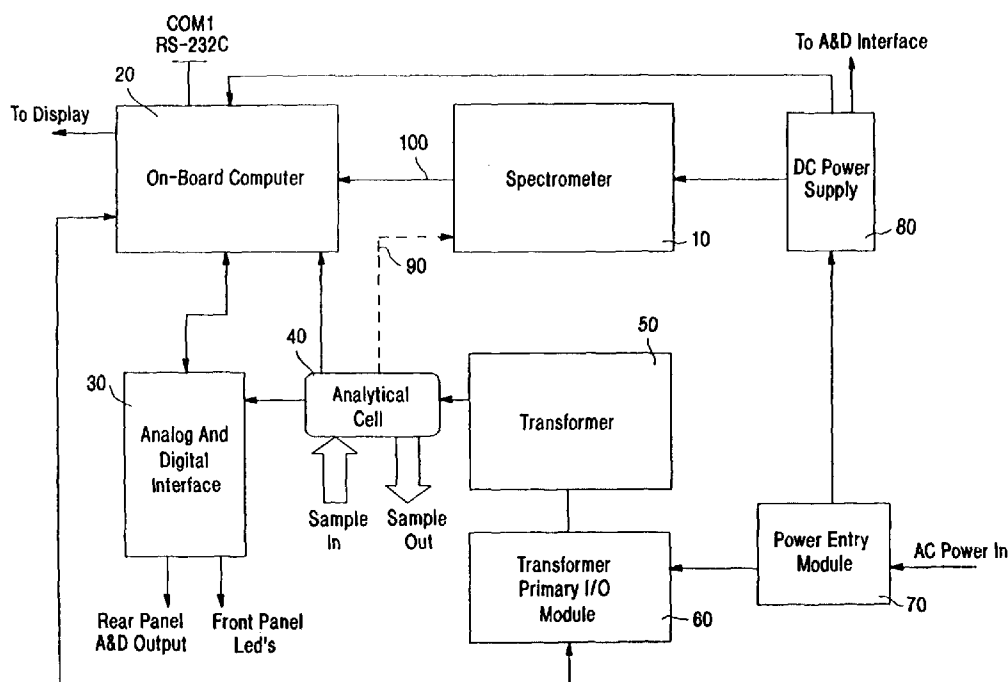
PCT

(10) International Publication Number
WO 03/004981 A2

- (51) International Patent Classification⁷: **G01J 3/30**
- (21) International Application Number: PCT/US02/20775
- (22) International Filing Date: 1 July 2002 (01.07.2002)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
09/899,875 6 July 2001 (06.07.2001) US
- (71) Applicant: **PRAXAIR TECHNOLOGIE, INC.**
[US/US]; 39 Old Ridgebury Road, Danbury, CT 06810-5113 (US).
- (72) Inventors: **MALCZEWSKI, Mark, Leonard**; 1186 Nash Road, North Tonawanda, NY 14120 (US). **WE-GRZYN, Joseph**; 2980 Carney Drive, Sanborn, NY 14132 (US). **MARTIN, Wayne, Donald**; 2911 Walck Drive, Wheatfield, NY 14120 (US).
- (74) Agents: **LAU, Bernard** et al.; Praxair, Inc., 39 Old Ridgebury Road, Danbury, CT 06810-5113 (US).
- (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, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
— without international search report and to be republished upon receipt of that report

[Continued on next page]

(54) Title: EMISSION SPECTROMETER HAVING CHARGE COUPLED DEVICE DETECTOR



(57) Abstract: An analyzer suitable for performing continuous gas analysis in ultra-high purity applications. The analyzer combines a low-level emission source and a gaseous emission spectrometer (10) having a charge coupled device (CCD) diode array as a detector. The CCD detector replaces one or more photomultipliers and narrow bandpass filters typically used in spectrometers. The analyzer performs various processing operations to evaluate and eliminate the effect of background light level, or dark spectrum.

WO 03/004981 A2



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.