

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
14 September 2006 (14.09.2006)

PCT

(10) International Publication Number
WO 2006/096530 A1

(51) International Patent Classification:
G01N 21/35 (2006.01) *G01N 21/27* (2006.01)
G01J 3/45 (2006.01)

(21) International Application Number:
PCT/US2006/007652

(22) International Filing Date: 3 March 2006 (03.03.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/074,307 7 March 2005 (07.03.2005) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

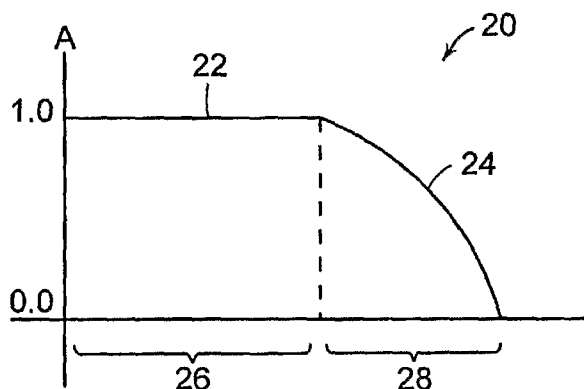
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (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.

(54) Title: METHOD AND APPARATUS OF SIGNAL PROCESSING IN SPECTROMETRY USING AN IMPROVED APODIZATION FUNCTION



(57) Abstract: A method and apparatus is disclosed for signal spectrometry using an improved apodization function. Such method and apparatus involve (i) obtaining sample and reference time domain waveforms; (ii) applying sample and reference apodization waveforms to the sample and reference time domain waveforms, such that substantially same weight is applied to corresponding substantially coextensive regions of the sample and reference time domain waveforms, (iii) transforming the sample and reference apodized waveforms from the time domain into the frequency domain; and (iv) generating referenced spectral analysis waveform for signal analysis from a ratio of the transformed sample and reference frequency spectra, the spectral analysis waveform substantially excluding frequencies associated with the corresponding substantially coextensive regions of the apodized sample and reference time domain waveforms.