

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
6 January 2005 (06.01.2005)

PCT

(10) International Publication Number
WO 2005/001438 A1

(51) International Patent Classification⁷: **G01N 1/30**,
15/14, G06K 9/00

(21) International Application Number:
PCT/US2004/015834

(22) International Filing Date: 19 May 2004 (19.05.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/478,434 12 June 2003 (12.06.2003) US
10/794,334 5 March 2004 (05.03.2004) US

(71) Applicant (for all designated States except US): **CYTYC CORPORATION** [US/US]; 85 Swanson Road, Boxborough, MA 01719 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **WONG, Kam, L.** [US/US]; 13 Wildwood Drive, Bedford, MA 01730 (US). **ISENSTEIN, Louise** [US/US]; 93 Woodbine Road, Carlisle, MA 01741 (US). **ZAHNISER, David** [US/US]; 33 Sheridan Road, Wellesley, MA 02481 (US).

(74) Agent: **BURSE, David, T.**; Three Embarcadero Center, Suite 1800, San Francisco, CA 94111-4067 (US).

(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, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

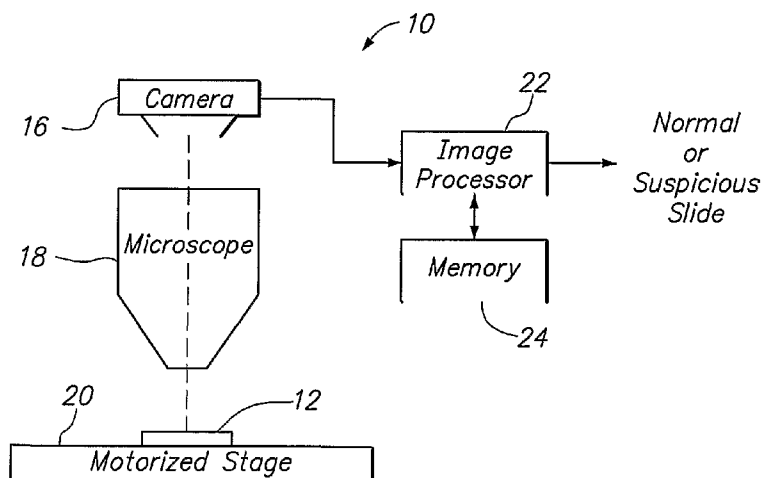
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, 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: SYSTEM FOR CLASSIFYING SLIDES USING SCATTER PLOT DISTRIBUTIONS



(57) Abstract: Systems for classifying biological specimens. A number of objects of interest are identified in a biological specimen. A first feature of each object of interest (e.g., nuclear area) and a second feature of each object of interest (e.g., nuclear integrated optical density) are measured, and a scatter plot of the first and second features is generated. The specimen is classified as being either normal or suspicious based on the distribution of points within the scatter plot.

WO 2005/001438 A1