

Search query (2): [SP]: method of testing the color quality of a colored gemstone a method of testing the color quality of a colored gemstone is disclosed, taking the gem color as an entirety visually composed of different color components, whose total amount of color components is constant, so as to calculate hue-purity, color-strength and relative chromaticity of the gem color to test the color quality. the method comprises the following steps: (1) determining blackness, chromaticness and hue of the gem color (2) calculating the hue-purity, color-strength and relative chromaticity in accordance with the blackness, chromaticness and hue (3) finding a matching color in a pre-established standard color library for this specific gemstone according to the hue-purity, color-strength and relative chromaticity calculated in step (2), and use the name of the matching color to indicate the gem color and color quality.

Results: 7

Search history

Search PN=(WO2017015912) (Results 1)

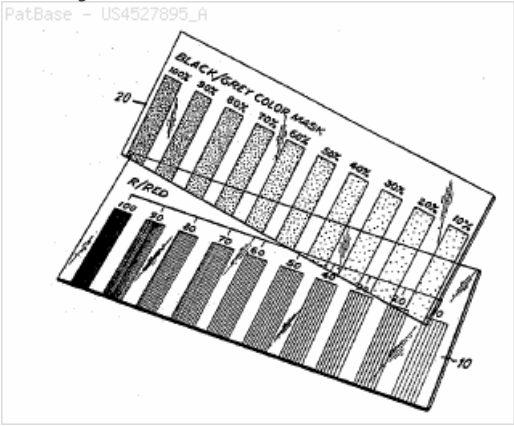
1:

Search [SP]: method of testing the color quality of a colored gemstone a method of testing the color quality of a colored gemstone is disclosed,
2: taking the gem color as an entirety visually composed of different color components, whose total amount of color components is constant, so as to calculate hue-purity, color-strength and relative chromaticity of the gem color to test the color quality. the method comprises the following steps: (1) determining blackness, chromaticness and hue of the gem color (2) calculating the hue-purity, color-strength and relative chromaticity in accordance with the blackness, chromaticness and hue (3) finding a matching color in a pre-established standard color library for this specific gemstone according to the hue-purity, color-strength and relative chromaticity calculated in step (2), and use the name of the matching color to indicate the gem color and color quality. (Results 7)

Title: Method of characterizing the colored appearance of a gemstone

Abstract: The inventive method, which provides an accurate, objective and readily reproduceable characterization of the total colored appearance of a gemstone, includes the steps of identifying the main and overlay colors of an illuminated gemstone from among a predetermined set of primary colors by comparison of the stone with a series of reference color charts representing standard samples of the primary colors and of composite mixtures of the primary colors, identifying by comparison the proportion of overlay color to main color in each stone with respect to such proportion in the selected color chart to determine the overlay level, identifying the color saturation of the composite coloration of the gemstone by comparison with the selected color chart to determine the zone of coloration of the stone, and overlaying a color mask and the selected color chart to identify the degree of color masking present in the gemstone.

Classifications:
International (IPC 8-9): G01J3/52 (Advanced/Invention)
International (IPC 1-7): G01J3/52 G01N21/87
CPC: G01J3/52 G01J3/463
European: G01J3/52 S01J3/46D
US: 283/114 283/70 283/74 356/30 356/421



Family:

Publication number	Publication date	Application number	Application date
US4527895 A	19850709	US19830460761	19830125

Priority:

US19830460761 19830125

Probable Assignee: GEMDIALOGUE SYSTEMS INC
Assignee(s): (std): GEMDIALOGUE SYSTEMS INC
Assignee(s): GEMDIALOGUE SYSTEMS INC A CORP OF NY
Inventor(s): (std): RUBIN HOWARD

Title: METHOD FOR DIGITAL COLOR GRADING OF GEMS AND COMMUNICATION THEREOF

Abstract: A computer based expert system and method of grading gems by their inherent properties of shape and color, including hue-tone-saturation. Each of the properties is variable over a practical range derived from a data-base; the database prepared by digital methods from real gems. The grading is conducted interactively on-screen by visual comparison to the image of a real target gem, and the result, translated into alpha-numeric code, can be communicated by phone or via the Internet to any other user of the same system and data-base. The communicated code can be reconstructed by the system into an identical gem image, enabling remote discussion and evaluation of the same target gem, including matching and pairing of gems. A practical embodiment of the grading system and method is described, including application modes specifically aimed at gems and diamonds.

Classifications:

International (IPC 8-9): A44C17/00 G01J3/46 G01J3/52 G01N21/27 G01N21/87 G06Q10/00 G06Q30/00 (Advanced/Invention); A44C17/00 G01J3/46 G01N21/25 G01N21/87 (Core/Invention); A44C (Subclass/Invention)

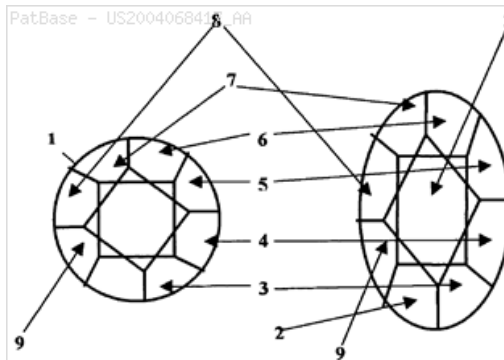
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CPC: G01J3/52 G01J3/46 G01J3/462 G01J3/463 G01N21/87 G06Q30/0278 G06Q30/0641

European: G01J3/46 G01J3/46C G01J3/46D G01J3/52 G01N21/87 G06Q30/0278 G06Q30/0641 S01J3/46C

US: 382/100 382/100S 702/1 702/1S 702/81 702/81S 705/1 705/27.1 705/306 705/306P 705/7 705/7P

JP F-Term: 2G020 2G020/AA08 2G020/DA02 2G020/DA03 2G020/DA04 2G020/DA05 2G020/DA34 2G020/DA52 2G051 2G051/AA81 2G051/AC21 2G051/EA17 2G051/EA21 3B114 3B114/AA21

JP F-Index: A44C17/00 G01J3/46/Z G01N21/87

**Family:**

Publication number	Publication date	Application number	Application date
AU2002367494 AA	20030902	AU20020367494	20021231
EP1500010 A2	20050126	EP20020806572	20021231
EP1500010 A4	20050427	EP20020806572	20021231
IL163201 A1	20130829	IL20020163201	20021231
JP2005516193 T2	20050602	JP20030562739T	20021231
JP4680507 B2	20110511	JP20030562739T	20021231
US2004068417 AA	20040408	US20030470740	20030811
US2005149369 AA	20050707	US20050070266	20050303
US8046274 BB	20111025	US20050070266	20050303
WO03062942 A2	20030731	WO2002IL01057	20021231
WO03062942 A3	20041111	WO2002IL01057	20021231

Priority:

US20020350926P 20020125 US20020470740 20021231 WO2002IL01057 20021231
US20030470740 20030811 IL20040163201 20040725 US20050070266 20050303

Probable Assignee: SEVDERMISH MENAHEM

Assignee(s): (std): SEVDERMISH MENAHEM

Assignee(s): MENAHEM SEVDERMISH

Inventor(s): (std): SEVDERMISH MENAHEM

Inventor(s): MENAHEM SEVDERMISH

Agent(s): GE EHRlich 1995 LTD; MARTIN MOYNIHAN, C/O ANTHONY CASTORINA; MARTIN MOYNIHAN C O ANTHONY CASTORINA

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SC SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: METHOD AND SYSTEM FOR COLOR GRADING OF GEMSTONES

Abstract: A method and system, including a computer program product, implementing a color terminology for accurate color grading of gemstones are provided. The method includes generating a reference color to match that of a graded gemstone under the standard viewing environment, processing color data in different color spaces, assigning a color grade to specify the color of the gemstone graded. The reference color can be continuously changed by adjusting the hue, lightness and saturation values. The color grade comprises a color name and one or more corresponding color coordinates and/or one or more corresponding color notations, in the form of Color Name (Color Coordinates). The color name is used for verbal description of the color, and the color coordinate or color notation is for accurate color communication in the jewelry industry.

Classifications:

International (IPC 8-9): G01N21/87 (Advanced/Invention);

G01N21/87 (Core/Invention)

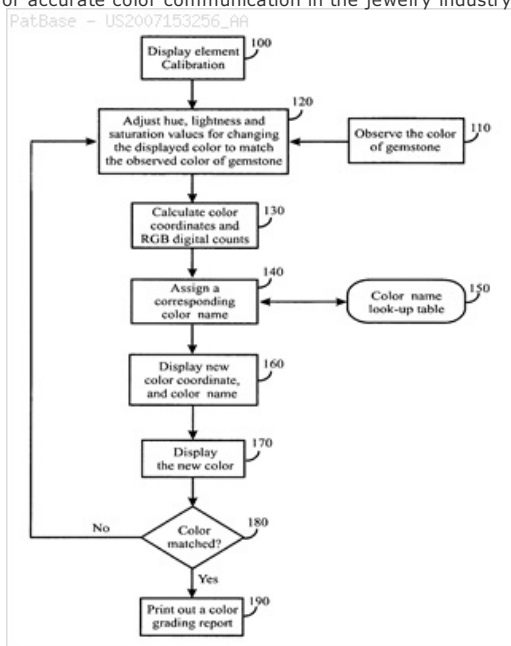
CPC: G01N21/87 G01J3/46 G01J3/462 G01J3/463 G01J3/465

G01N21/278 G01N21/293

European: G01J3/46 G01J3/46C G01J3/46D G01J3/46E

G01N21/29B G01N21/87 S01N21/27E3

US: 356/30 356/30P

**Family:**

Publication number	Publication date	Application number	Application date
US2007153256 AA	20070705	US20050322431	20051230
US7388656 BB	20080617	US20050322431	20051230

Priority:

US20050322431 20051230

Probable Assignee: LIU YAN

Assignee(s): (std): LIU YAN

Inventor(s): (std): LIU YAN

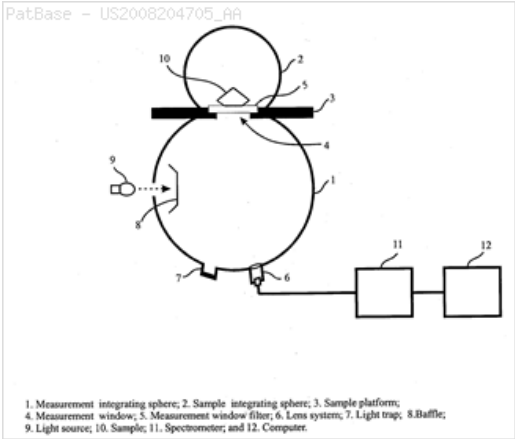
Agent(s): CHARLES CH WU; WU AND CHEUNG LLP; WU CHARLES C H; CHARLES C H

Title: APPARATUS AND METHOD FOR COLOR MEASUREMENT AND COLOR GRADING OF DIAMONDS, GEMSTONES AND THE LIKE

Abstract: The present invention discloses an apparatus and method for color measurement and color grading of faceted gemstones, diamonds and the like. The apparatus comprises a spectrometer, a computer, and a dual integrating sphere measurement arrangement comprising a measurement integrating sphere, a sample integrating sphere, a sample platform, a filter, a lens system, a baffle and a light source. The measurement geometry of the dual integrating sphere measurement arrangement is diffuse illumination and 8 degree viewing with the specular component excluded, plus diffuse white background provided by the sample integrating sphere. The sample integrating sphere encloses a sample to provide a constant environment for simulating the visual color grading environment. A novel three-step calibration insures an accurate spectral measurement of the sample inside the measurement integrating sphere. The computer controls the spectrometer and provides measurement parameters calculated from the physical parameters of the measured sample, including, but not limited to, shape, dimensions, refractive index, intensity of fluorescence and cut grade. The computer then calculates the spectral reflectance and calorimetric data, and determines an average color grade by checking a look-up-table that represents the relationship between the CIELAB coordinate and the average color grade. The computer also determines a true color grade based upon the average color grade and the physical parameters, using mathematical analyses and algorithms.

Classifications:

International (IPC 8-9): G01J1/04 G01N21/00
G01N21/55 (Advanced/Invention);
G01J1/04 G01N21/00 G01N21/55 (Core/Invention)
CPC: G01N21/87 G01N2201/065
European: G01N21/87 S01N201/065
US: 250/228 356/236 356/30



Family:

Publication number	Publication date	Application number	Application date
US2008204705 AA	20080828	US20070678564	20070223
US2010141929 AA	20100610	US20090477091	20090602
US7652755 BB	20100126	US20070678564	20070223

Priority:

US20070678564 20070223 US20090477091 20090602

Probable Assignee: LIU YAN

Assignee(s): (std): LIU YAN

Inventor(s): (std): LIU YAN

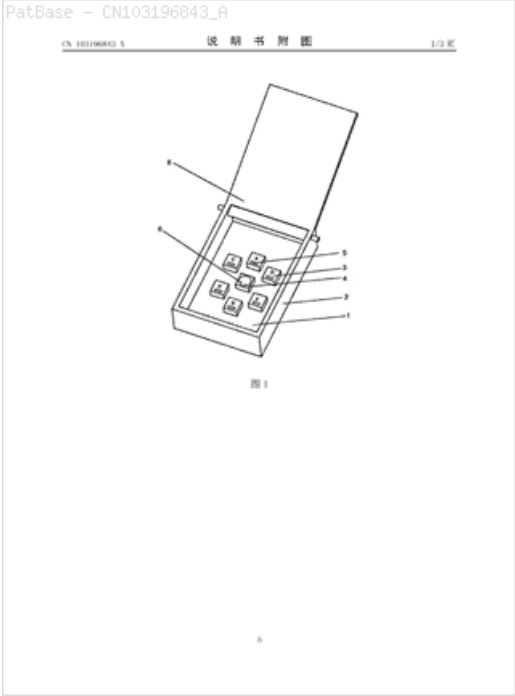
Agent(s): CHARLES CH WU; WU AND CHEUNG LLP; CHARLES C H

Title: MUNSELL COLOR CARD COLOR COMPARISON DEVICE FOR GEM COLOR COMPARISON

Abstract: The invention discloses a Munsell color card color comparison device for gem color comparison, belonging to the technical field of gem color comparison. The color comparison device comprises a baseboard, a flange, color card arrangement slots, a sample placement slot and a transparent pressing plate, wherein the flange is arranged on the peripheral side of the baseboard, a buckle is arranged on the side of the baseboard, a clamping hole is formed in the flange, the flange is fixed on the baseboard through the matching of the buckle and the clamping hole, six color card arrangement slots and one sample placement slot are arranged on the baseboard, six corresponding color cards with close colors can be provided for one gem to compare colors, and the transparent pressing plate is arranged on a baffle. The Munsell color card color comparison device has the advantages that the color comparison efficiency is improved, result errors are reduced, the surface of the color cards is protected, and human eye error is reduced.

Classifications:

International (IPC 8-9): G01N21/29 (Advanced/Invention)



Family:

Publication number	Publication date	Application number	Application date
CN103196843 A	20130710	CN201310153261	20130427
CN103196843 B	20150422	CN201310153261	20130427
CN203203921 U	20130918	CN201320224604U	20130427

Priority:

CN201310153261 20130427 CN201320224604U 20130427

Probable Assignee: UNIV CHINA GEOSCIENCES WUHAN

Assignee(s): (std): UNIV CHINA GEOSCIENCES WUHAN

Assignee(s): CHINA UNIV OF GEOSCIENCES BEIJING

Inventor(s): (std): CHEN WEN ; GUO YING ; WANG HUAN ; YAN JINGXIN

Title: TONE DEFINITIONAL EQUATION GENERATION METHOD, TONE TYPE IDENTIFICATION METHOD, A METHOD FOR CALCULATING MUNSELL VALUE CORRESPONDING TO ARBITRARILY DEFINED TONE, IMAGE FORMATION METHOD, AND INTERFACE SCREEN DISPLAY DEVICE

Abstract: [Problem] To provide a technique for calculating the psychophysical value of a color corresponding to an arbitrarily defined tone by modeling a tone concept defined in the PCCS (Practical Color Co-ordinate System). [Solution] A method for, regarding multiple types of tones defined in the PCCS, generating a definitional equation for each saturation to which each of the tones belongs, wherein a computer acquires the Munsell values of colors belonging to respective multiple tones belonging to the same saturation among the multiple types of tones defined in the PCCS, the computer stores the acquired multiple Munsell values in a predetermined storage device, the computer converts each of the multiple Munsell values stored in the storage device into a value in a predetermined color space composed of two axes of values representing lightness and values representing vividness, and the computer performs a predetermined regression calculation on a point group projected to the predetermined color space to find a regression equation passing through the origin of the predetermined color space.

Classifications:

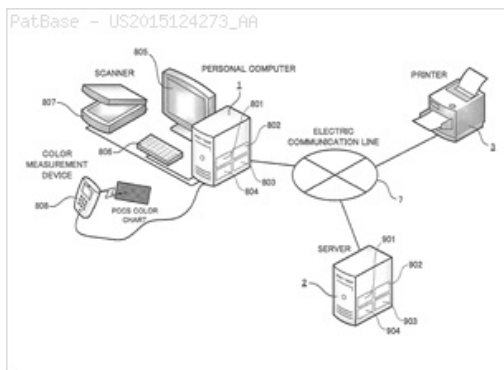
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CPC: H04N1/6075 H04N1/6058 H04N2201/0089 H04N2201/0082 H04N1/56 G01J3/52 G01J3/465 G01J3/463 G01J3/462

US: 1/1 345/594 358/1.13 382/162

JP F-Term: 2G020 2G020/AA08 2G020/DA02 2G020/DA03 2G020/DA04 2G020/DA12 2G020/DA13 2G020/DA21 2G020/DA65 5C077 5C077/LL12 5C077/MM27 5C077/MP01 5C077/MP08 5C077/PP35 5C077/PP37 5C079 5C079/HB06 5C079/HB11 5C079/LA02 5C079/LA10 5C079/LA31 5C079/LB01 5C079/MA04 5C079/MA10 5C079/NA03 5C079/NA27 5B057 5B057/AA11 5B057/CA18 5B057/CB01 5B057/CB08 5B057/CB12 5B057/CB16 5B057/CE18 5B057/DA17 5B057/DB02 5B057/DB06 5B057/DB09 5B057/DC25 5C077/LL20 5C077/PP36 5C077/PQ08 5C077/SS06 5C077/TT02 5C079/HB05 5C079/LA03 5C079/MA20 5C079/PA03

JP F-Index: G01J3/52 H04N1/40/D H04N1/401 H04N1/407/780 H04N1/46/Z H04N1/56 H04N1/60 H04N1/60/020 H04N1/60/160 G06T1/00/510



Family:

Publication number	Publication date	Application number	Application date
DE602012044365 D 1	20180419	DE201260044365T	20120626
EP2866008 A1	20150429	EP20120879677	20120626
EP2866008 A4	20161130	EP20120879677	20120626
EP2866008 B1	20180321	EP20120879677	20120626
JP2014002135 A1	20160526	JP20130511453T	20120626
JP2014007733 A2	20140116	JP20130060522	20130322
JP5296268 B1	20130925	JP20130060522	20130322
JP5941041 B1	20160629	JP20130511453T	20120626
US2015124273 AA	20150507	US20120410794	20120626
US9253370 BB	20160202	US20120410794	20120626
WO14002135 A1	20140103	WO2012JP04130	20120626

Priority:

EP20120879677 20120626 JP20130511453 20120626 WO2012JP04130 20120626
JP20130060522 20130322

Probable Assignee: JAPAN COLOR RESEARCH INST

Assignee(s): (std): KOBAYASHI SHINJI ; NAKAGAWA CHEM KK ; KOMATSUBARA HITOSHI ; NAKAGAWA CHEMICAL INC ; NAKAGAWA KOICHI ; JAPAN COLOR RES INST

Assignee(s): JAPAN COLOR RESEARCH INST ; JAPAN COLOR RESEARCH INSTITUTE

Inventor(s): (std): KOBAYASHI SHINJI ; NAKAGAWA KOICHI ; KOMATSUBARA HITOSHI

Inventor(s): KOMATSUBARA HITOSHI SAIITAMA SHI ; KOBAYASHI SHINJI SAIITAMA SHI

Agent(s): VOSSIUS AND PARTNER PATENTANWAELTE RECHTSANWAELTE MBB ; VOSSIUS AND PARTNER PATENTANWAELTE RECHTSANWAELTE MBB ; MIZUNO KATSUFUMI ; WENDEROTH LIND AND PONACK LLP ; MIZUNO KATSUFUMI ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: METHOD OF TESTING THE COLOR QUALITY OF A COLORED GEMSTONE

Abstract: A method of testing the color quality of a colored gemstone is disclosed, taking the gem color as an entirety visually composed of different color components, whose total amount of color components is constant, so as to calculate hue-purity, color-strength and relative chromaticity of the gem color to test the color quality. The method comprises the following steps: (1) determining blackness, chromaticness and hue of the gem color; (2) calculating the hue-purity, color-strength and relative chromaticity in accordance with the blackness, chromaticness and hue; (3) finding a matching color in a pre-established standard color library for this specific gemstone according to the hue-purity, color-strength and relative chromaticity calculated in step (2), and use the name of the matching color to indicate the gem color and color quality.

Classifications:

International (IPC 8-9): G01J3/52 G01N21/29 G01N21/87 G09B19/00 G09F5/04 (Advanced/Invention)
CPC: G01N21/87 G01J3/52 G01N21/293
JP F-Term: 2C028 2G020 2G020/DA05 2G020/DA16 2G020/DA51 2G020/DA66 2G051 2G051/AA81 2G051/AB20 2G051/EA17 2G051/EB02 2G051/EB09 5C091
JP F-Index: G01J3/52 G01N21/87 G09B19/00/G G09F5/04/P

Family:

Publication number	Publication date	Application number	Application date
CN107709976 A	20180216	CN201580081327	20150729
CO20180001288 A2	20180220	CO20180001288	20180208
EP3329260 A1	20180606	EP20150899264	20150729
EP3329260 A4	20180718	EP20150899264	20150729
JP2018524598 T2	20180830	JP20180502242T	20150729
US2018136141 AA	20180517	US20180869058	20180112
WO17015912 A1	20170202	WO2015C N085476	20150729

Priority:

WO2015CN085476 20150729 US20180869058 20180112

Probable Assignee: DENG WENSHUAI

Assignee(s): (std): DENG WENSHUAI

Assignee(s): WENSHUAI DENG

Inventor(s): (std): DENG WENSHUAI

Inventor(s): WENSHUAI DENG

Agent(s): FERNANDO TRIANA SOTO; MOORE GRAEME PATRICK; RYUKA IP LAW FIRM; CHINA TRUER IP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW