

6 Documents

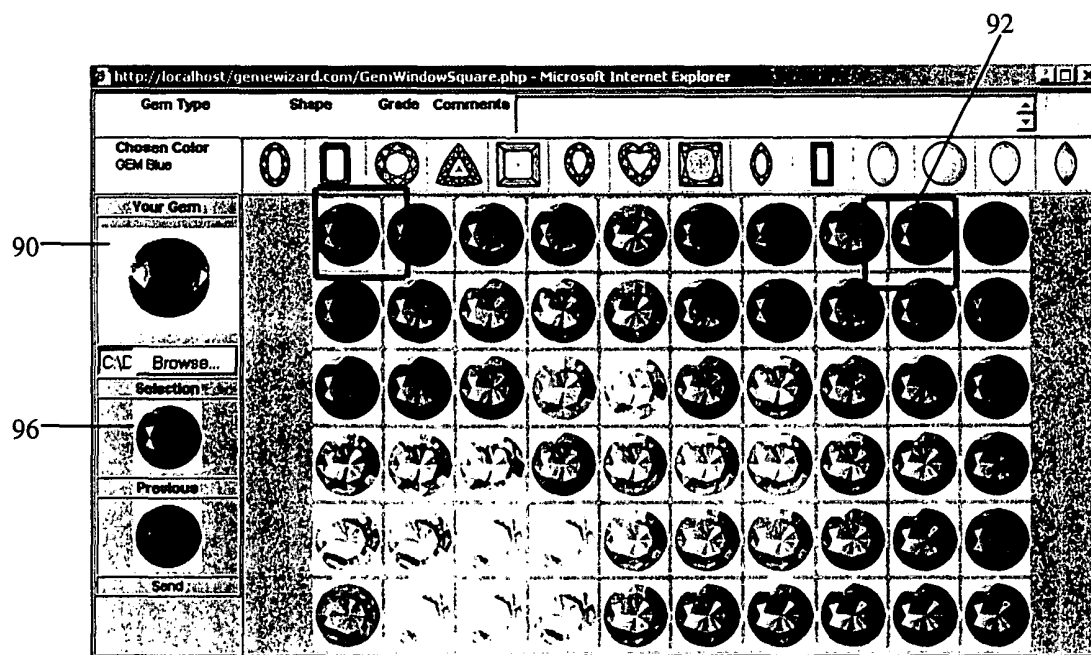
Publication numbers	Title	Current assignees
US20050149369 A1	Method for digital color grading of gems and communication thereof	SEVDERMISH MENAHEM
CN103196843 A	Munsell color card color comparison device for gem color comparison	CHINA UNIVERSITY OF GEOSCIENCES
US20080204705 A1	Apparatus and method for color measurement and color grading of diamonds, gemstones and the like	LIU YAN
US20070153256 A1	Method and system for color grading of gemstones	LIU YAN
US4527895 A	Method of characterizing the colored appearance of a gemstone	GEMDIALOGUE SYSTEMS
WO201402135 A1	Tone type identification method	JAPAN COLOR RESEARCH INSTITUTE, ...

Family 1/6 - FAMPAT - ©Questel

Title

(US8046274)

Method for digital color grading of gems and communication thereof

Images**Publication data including kind & date**[US20050149369](#)

A1 2005-07-07

US20050149369

[US8046274](#)

B2 2011-10-25

US8046274

**Abstract**

(US8046274)

A method of color grading gems by a user by their inherent properties of shape, hue, tone and saturation. Each of the properties is variable over a practical range derived from a database. The database is created by digitally coding gem shapes, hues, tones and colors from digital photographs of gems of different, shapes, hues, tones and saturation. The variable properties are displayed on a screen and the user selects the best matching respective shape, hue, tone and saturation in comparison to the particular gem being graded. Upon receiving the user's selections, an image of the a gem having the shape, hue, tone and saturation selected by the user is displayed on the screen and translated into alpha-numeric code which can be communicated to any other user of the same system, enabling remote discussion and evaluation of the same target gem.

Inventors

SEVDERMISH MENAHEM

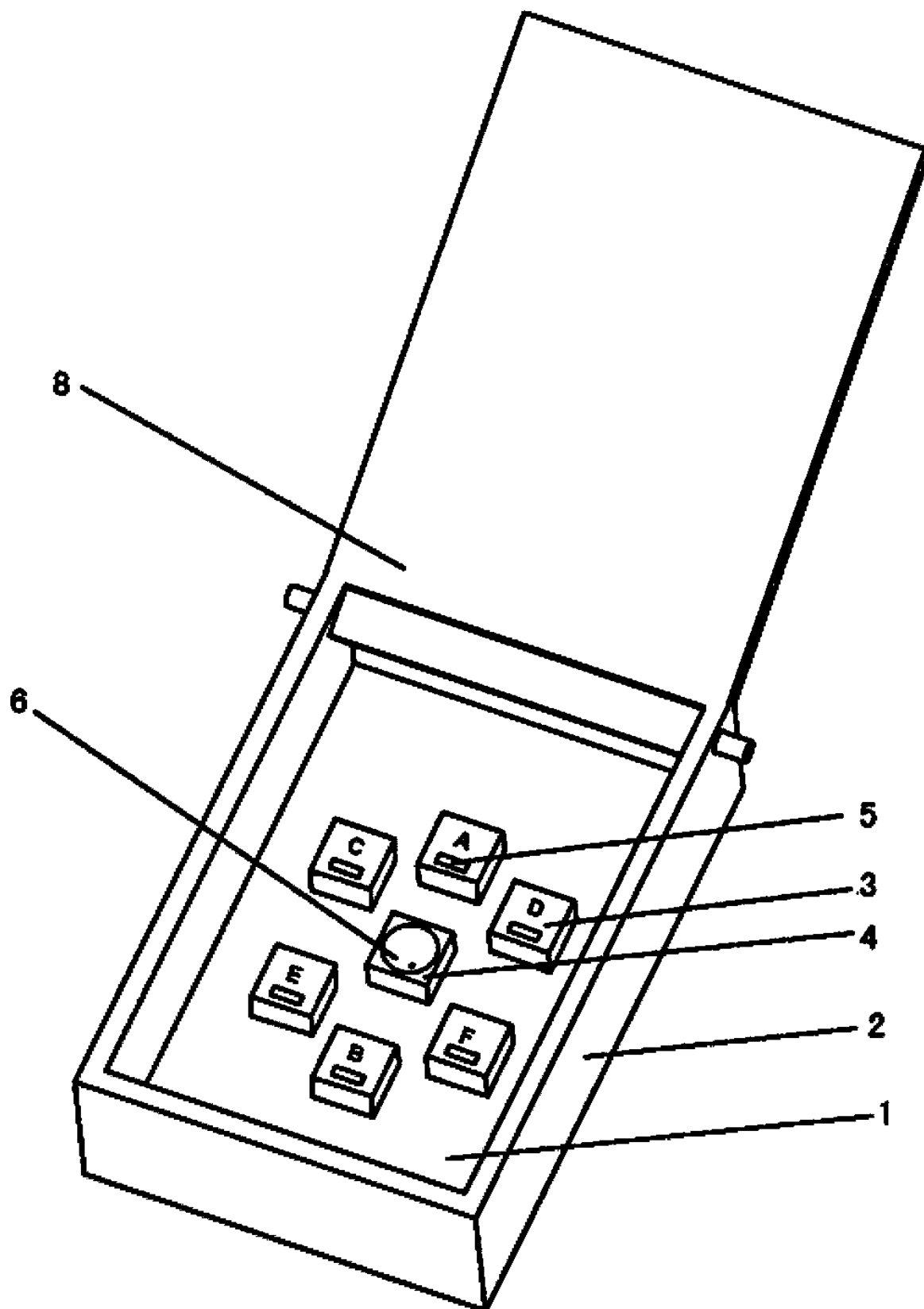
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Title

(CN103196843B)

Munsell color card color comparison device for gem color comparison

Images



Publication data including kind & date

CN103196843	A	2013-07-10	CN103196843
CN103196843	B	2015-04-22	CN103196843B



Abstract

(CN103196843B)

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.

Inventors

GUO YING

WANG HUAN

YAN JINGXIN

CHEN WEN

Latest standardized assignees - inventors removed

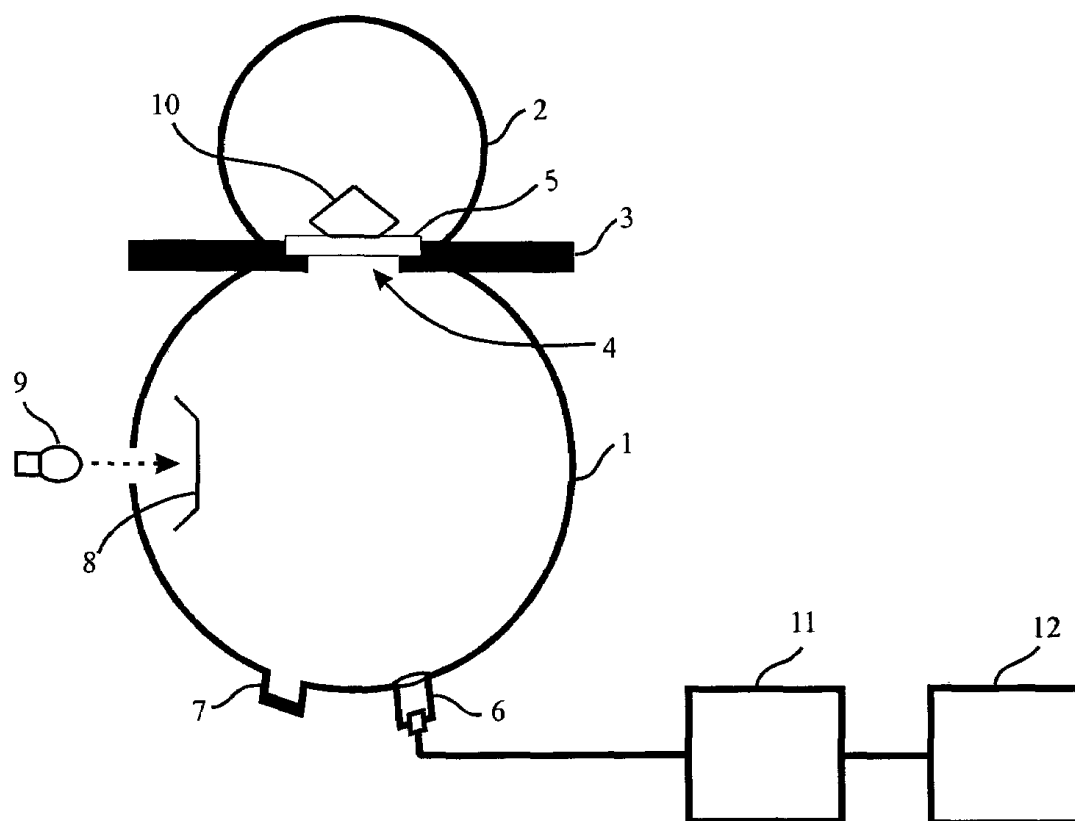
CHINA UNIVERSITY OF GEOSCIENCES

Family 3/6 - FAMPAT - ©Questel

Title

(US7652755)

Apparatus and method for color measurement and color grading of diamonds, gemstones and the like

Images**Publication data including kind & date**

US20080204705	A1	2008-08-28	US20080204705
US7652755	B2	2010-01-26	US7652755
US20100141929	A1	2010-06-10	US20100141929

**Abstract**

(US7652755)

The present invention discloses an apparatus that comprises a spectrometer, and 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 sample integrating sphere encloses a sample to provide a constant environment for simulating the visual color grading environment. The computer controls the spectrometer and provides measurement parameters calculated from 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 spectral reflectance and colorimetric 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 analytic algorithms.

Inventors

LIU YAN

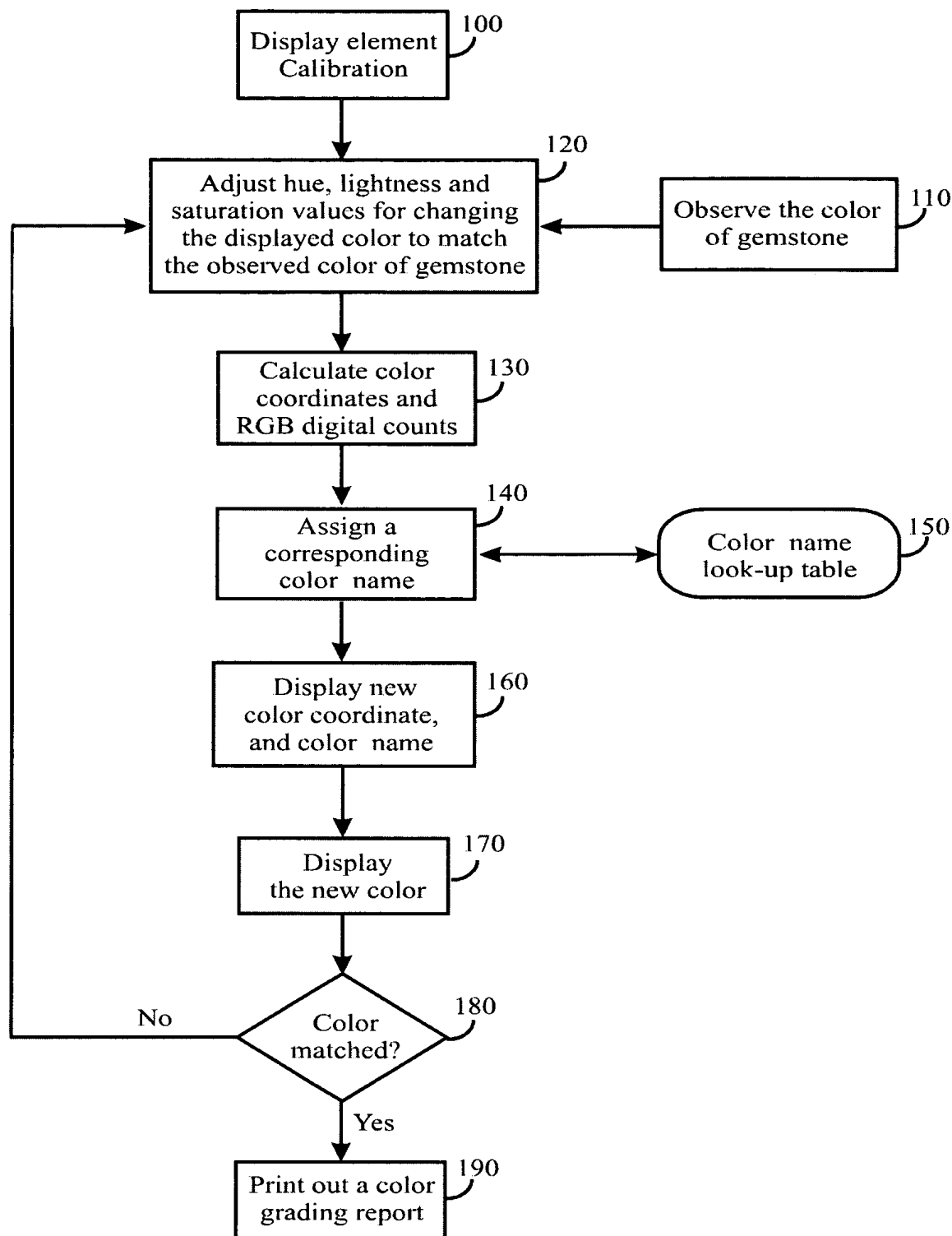
Family 4/6 - FAMPAT - ©Questel

Title

(US7388656)

Method and system for color grading of gemstones

Images

**Publication data including kind & date**

US20070153256	A1	2007-07-05	US20070153256
US7388656	B2	2008-06-17	US7388656

**Abstract**

(US7388656)

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.

Inventors

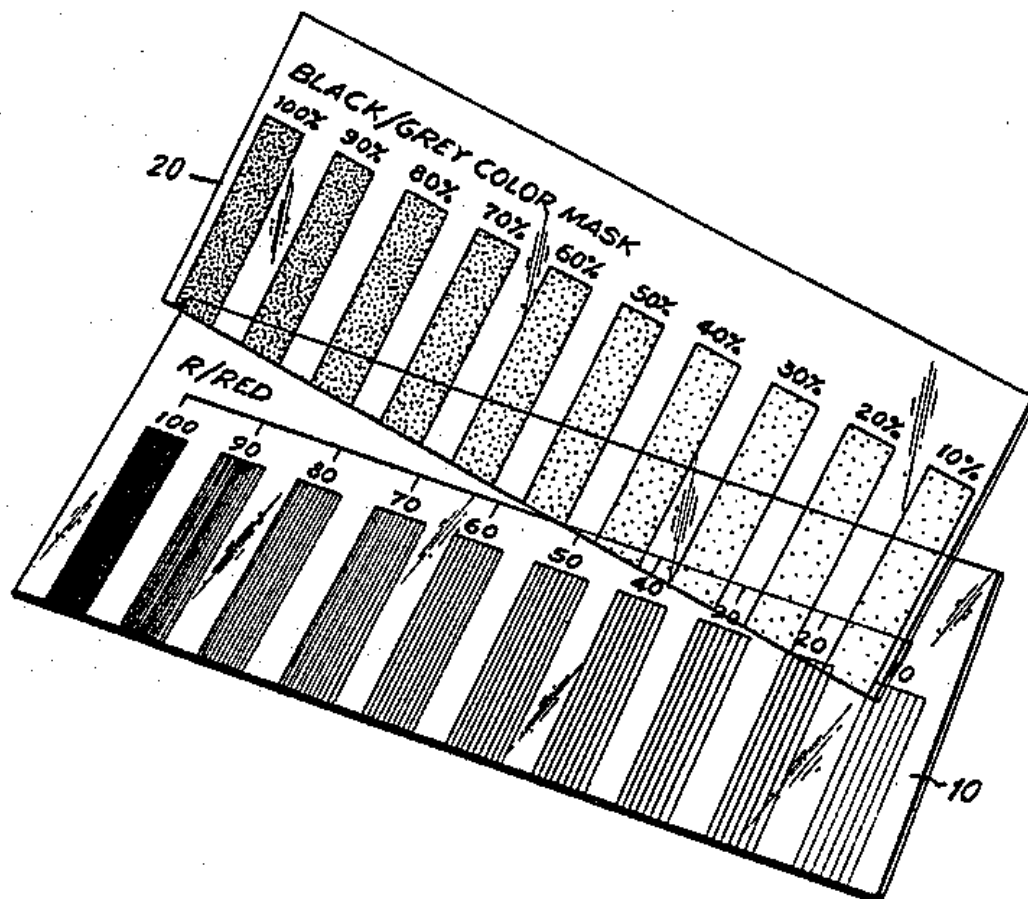
LIU YAN

Family 5/6 - FAMPAT - ©Questel

Title

(US4527895)

Method of characterizing the colored appearance of a gemstone

Images**Publication data including kind & date**[US4527895](#)

A

1985-07-09

US4527895

**Abstract**

(US4527895)

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.

Inventors

RUBIN HOWARD

Latest standardized assignees - inventors removed

GEMDIALOGUE SYSTEMS

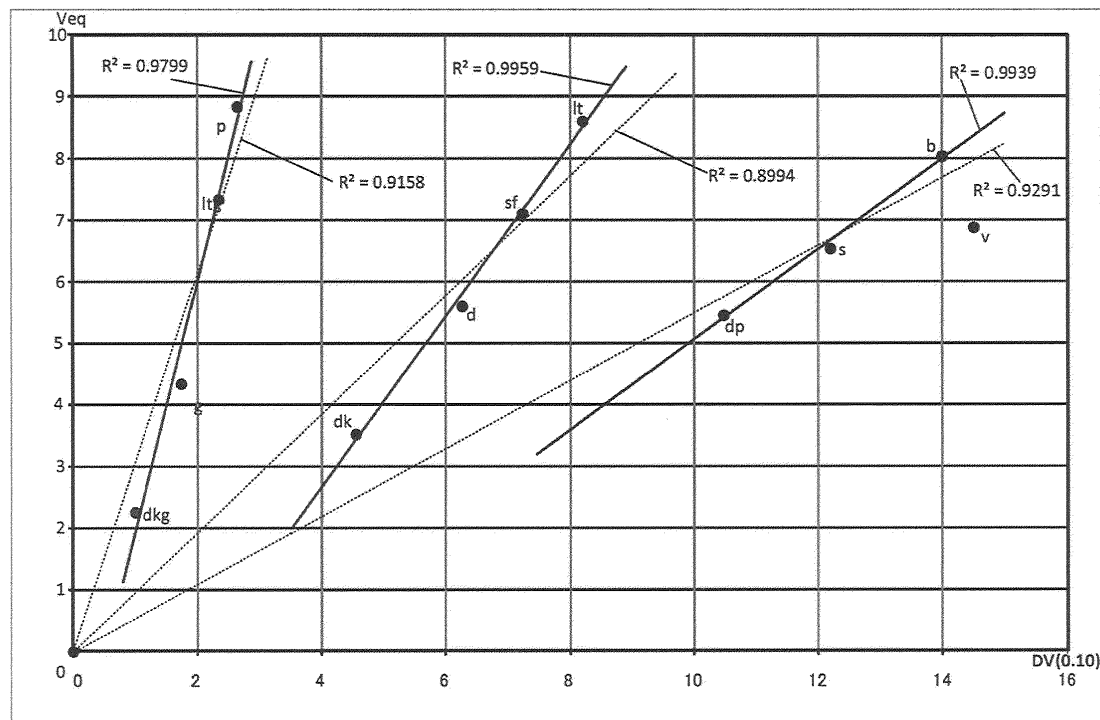
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Title

(EP2866008)

Tone type identification method

Images

REGRESSION EQUATIONS FOR HUE 2 AND COEFFICIENT $k_1 = 0.10$

Publication data including kind & date

WO2014002135	A1	2014-01-03	WO201402135
EP2866008	A1	2015-04-29	EP2866008
US20150124273	A1	2015-05-07	US20150124273
US9253370	B2	2016-02-02	US9253370
JPWO2014002135	A1	2016-05-26	JP2014002135W
JP5941041	B2	2016-06-29	JP5941041
EP2866008	A4	2016-11-30	EP2866008
EP2866008	B1	2018-03-21	EP2866008



Abstract

(EP2866008)

[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.

Inventors

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Latest standardized assignees - inventors removed

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