

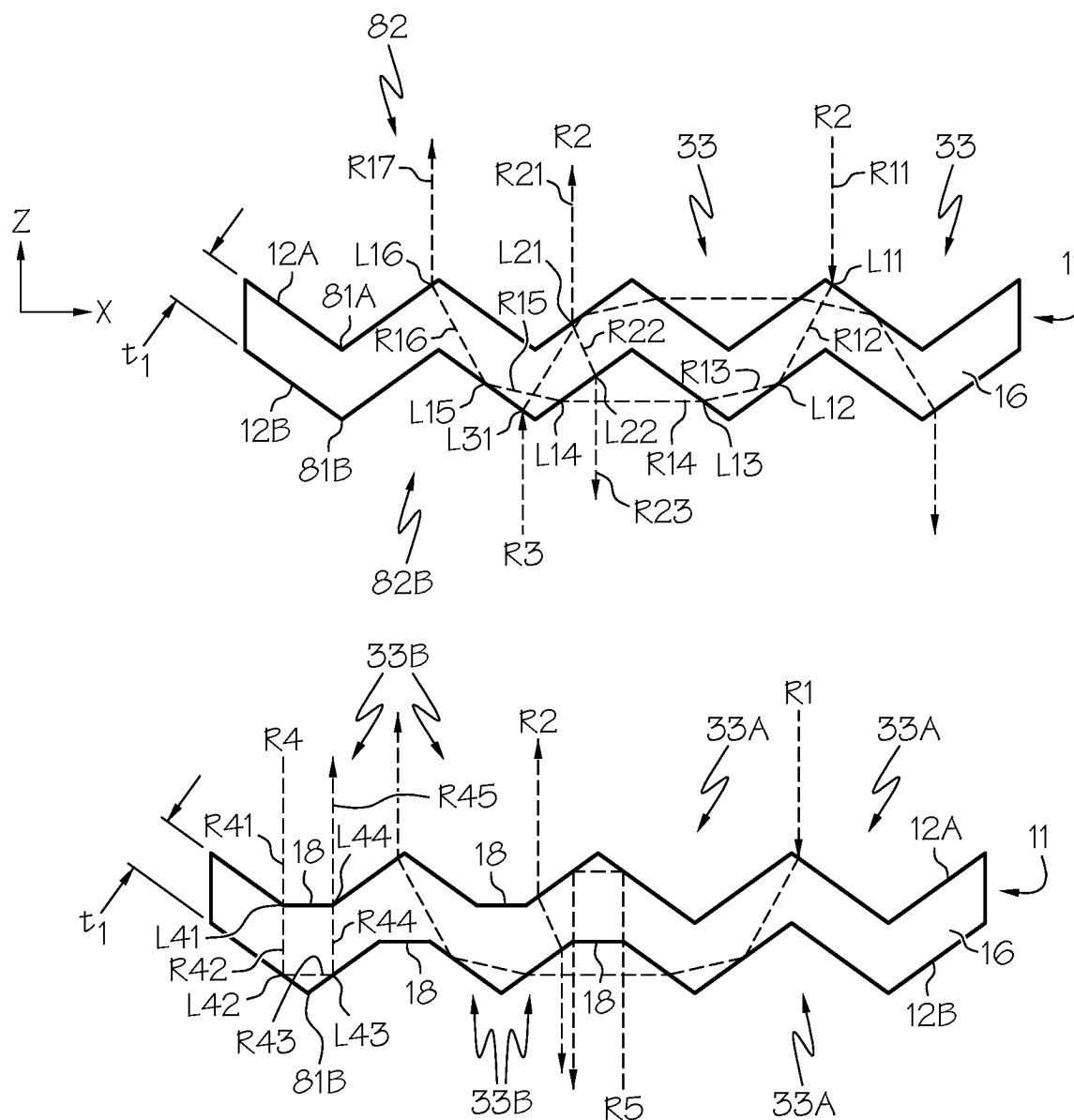
7 Documents

Publication numbers	Title	Current assignees
US20080212182 A1	Two-sided corner-cube retroreflectors and methods of manufacturing the same	TECHNOLOGY SOLUTIONS & INVENTION
KR20020096934 A	Micro corner cube array, method of making the micro corner cube array and reflective type display device	SHARP
WO200991681 A2	Retroreflector for use in touch screen applications and positions sensing system	AVERY DENNISON, ...
US20110216411 A1	Master tools with selectively orientable regions for manufacture of patterned sheeting	ORAFOL EUROP
WO9928771 A1	Miniature micro prism retroreflector	ORAFOL AMERICAS
US20050088742 A1	Reflective display device with high retroreflectivity	SHARP
DE102010046907 A1	Method for forming robust one shot-interferometer i.e. short coherency interference microscopy, involves evaluating interferogram for determination form, micro form, ripple and/or roughness or optical path length	UNIVERSITAET STUTTGART

Family 1/7 - FAMPAT - ©Questel

Title

(WO2008109420)

Two-sided **corner-cube** retroreflectors and methods of manufacturing the same**Images****Publication data including kind & date**

US20080212182	A1	2008-09-04	US20080212182
WO2008109420	A2	2008-09-12	WO2008109420
WO2008109420	A3	2008-10-23	WO2008109420
US7506987	B2	2009-03-24	US7506987
US20090237791	A1	2009-09-24	US20090237791
US7703931	B2	2010-04-27	US7703931

**Abstract**

(WO2008109420)

In a retroreflective sheeting, and methods of formation thereof, the sheeting comprises a body of material, the body having a first surface and a second surface. A plurality of first full-square-sided **corner-cube** structures are on the first surface of the body, the first full-square-sided **corner-cube** structures each having three facets that lie along planes that are orthogonal to each other. A plurality of second full-square-sided **corner-cube** structures are on the second surface of the body, the second full-square-sided **corner-cube** structures each having three facets that lie along planes that are orthogonal to each

other. The body is constructed and arranged to be transparent to incident electromagnetic energy at a range of wavelengths and to have a thickness so that an incident electromagnetic energy ray that is incident at one of the first and second surfaces enters the body, and is redirected by both the first surface and the second surface so that both the first surface and the second surface contribute to retroreflection of the incident electromagnetic energy ray, and exits from the one of the first and second surfaces at which the incident electromagnetic energy ray was incident to emit a retroreflected electromagnetic energy ray of the incident electromagnetic energy ray.

Inventors

NILSEN ROBERT B

Latest standardized assignees - inventors removed

TECHNOLOGY SOLUTIONS & INVENTION

Publication dates

2008-09-04

2008-09-12

2008-10-23

2009-03-24

2009-09-24

2010-04-27

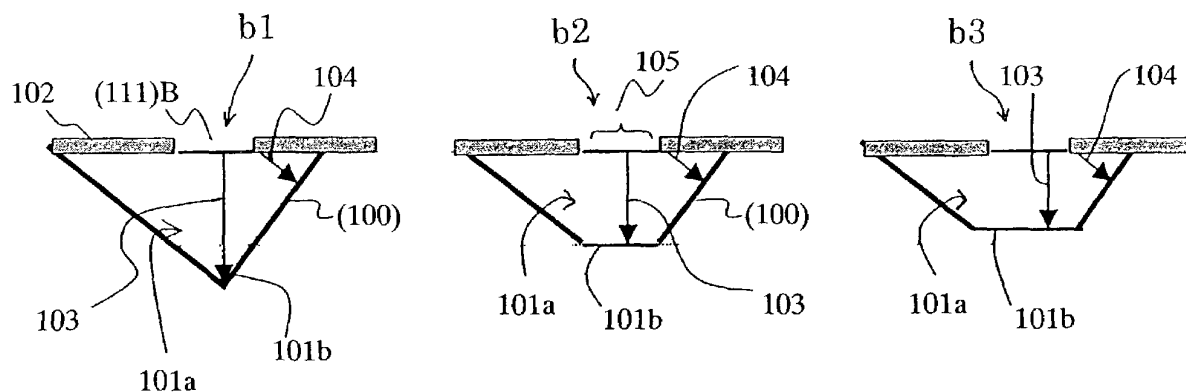
Family 2/7 - FAMPAT - ©Questel

Title

(US7518676)

Micro **corner cube** array, **method** of making the micro **corner cube** array and reflective type display device

Images



Publication data including kind & date

KR20020096934	A	2002-12-31	KR20020096934				
CN1392451	A	2003-01-22	CN1392451				
JP2003066442	A	2003-03-05	JP2003066442				
JP2003066211	A	2003-03-05	JP2003066211				
US20030053015	A1	2003-03-20	US20030053015				
KR100490816	B1	2005-05-24	KR100490816				
US20060146237	A1	2006-07-06	US20060146237				
JP2006178495	A	2006-07-06	JP2006178495				
US7098976	B2	2006-08-29	US7098976				
JP3818886	B2	2006-09-06	JP3818886				
JP3946070	B2	2007-07-18	JP3946070				
CN100406921	C	2008-07-30	CN100406921C				
US7518676	B2	2009-04-14	US7518676				

Abstract

(US7518676)

A **method** of making a micro **corner cube** array includes the steps of: preparing a substrate, at least a surface portion of which consists of cubic single crystals and which has a surface that is substantially parallel to {111} planes of the crystals; and etching the surface of the substrate anisotropically, thereby forming a plurality of unit elements for the micro **corner cube** array on the surface of the substrate. Each of these unit elements is made up of a number of crystal planes that have been formed at a lower etch rate than the {111} planes of the crystals.

Inventors

MINOURA KIYOSHI

UEKI SHUN

ITOH YASUHISA

IHARA ICHIROH

SAWAYAMA YUTAKA

TANIGUCHI KOHJI

Latest standardized assignees - inventors removed

SHARP

Publication dates

2002-12-31

2003-01-22

2003-03-05

2003-03-05

2003-03-20

2005-05-24

2006-07-06

2006-07-06

2006-08-29

2006-09-06

2007-07-18

2008-07-30

2009-04-14

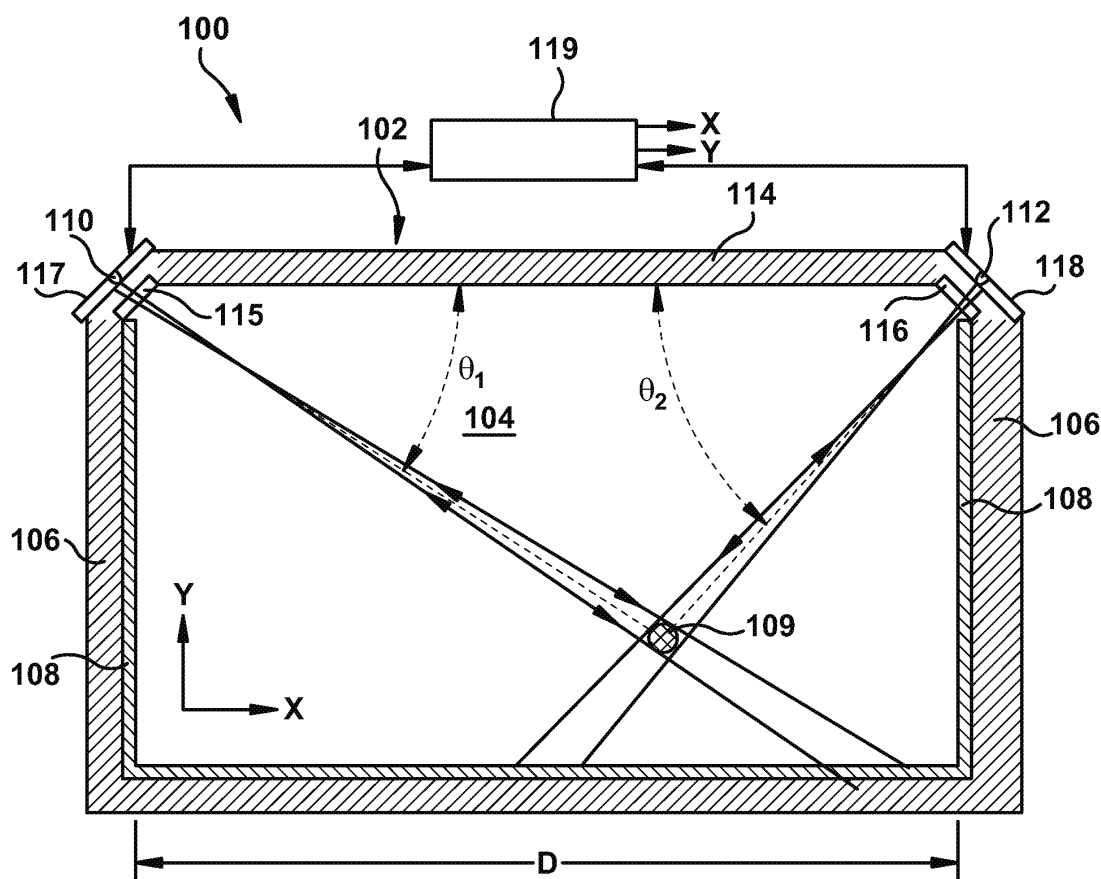
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Title

(EP2367033)

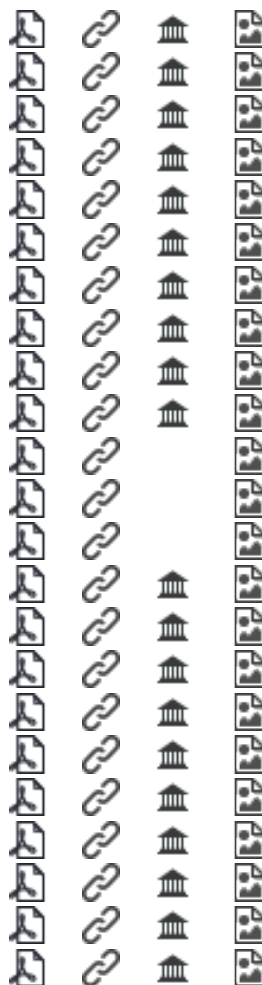
Retroreflector for use in touch screen applications and positions sensing system

Images



Publication data including kind & date

WO2009091681	A2	2009-07-23	WO200991681
AU2009205567	A1	2009-07-23	AU2009205567
WO2009091681	A3	2009-09-24	WO200991681
US20090295755	A1	2009-12-03	US20090295755
EP2238485	A2	2010-10-13	EP2238485
KR20100133959	A	2010-12-22	KR20100133959
CN101971064	A	2011-02-09	CN101971064
IN5217/DELNP/2010	A	2011-02-25	IN2010DN05217
JP2011510346	A	2011-03-31	JP2011510346
EP2367033	A1	2011-09-21	EP2367033
RU2010133621	A	2012-02-27	RU2010133621
ZA201005039	B	2012-06-27	ZA201005039
RU2497161	C2	2013-10-27	RU2497161
JP2014199459	A	2014-10-23	JP2014199459
AU2009205567	B2	2014-12-11	AU2009205567
US8928625	B2	2015-01-06	US8928625
BRPI0907219	A2	2015-07-14	BR200907219
CN101971064	B	2015-07-29	CN101971064B
KR101555818	B1	2015-09-25	KR101555818
BRPI0907219	A8	2015-09-29	BR200907219
BRPI0907219	A8	2015-09-29	BRPI0907219
JP5913439	B2	2016-04-27	JP5913439
BRPI0907219	A8	2018-10-23	BRPI0907219



Abstract

(EP2367033)

A touch screen system and prismatic film includes a retroreflective substrate having a plurality of retroreflective elements having triangular **cube** corners. A metallized layer is disposed over at least a portion of the retroreflective elements. In one embodiment, the prismatic film includes two colored substrates mounted over the retroreflective elements. In another embodiment, a single substrate is mounted over the retroreflective elements. It is often desired that a color of the substrate(s) be chosen that is highly transparent in the infrared spectrum, but is also non-transparent in the visible light spectrum, giving the prismatic film a dark appearance. The prismatic film includes a plurality of retroreflective elements having triangular **cube** corners with a cant in a range between about 4 degrees in a face more parallel direction to 18 degrees in an edge more parallel direction and a **cube** depth between about 0.002 and 0.008 inches or with a cant of about 5.5 to 22 degrees in an edge more parallel direction and a **cube** depth between about 0.0005 and 0.004 inches, or with a cant of about 8 to 35 degrees in a face more parallel direction and a **cube** depth between 0.001 and 0.012 inches.

Inventors

CHAPMAN STEVEN R

BRIDGER SIMON

Latest standardized assignees - inventors removed

AVERY DENNISON

SMART TECHNOLOGIES

Publication dates

2009-07-23

2009-07-23

2009-09-24

2009-12-03

2010-10-13

2010-12-22

2011-02-09

2011-02-25

2011-03-31

2011-09-21

2012-02-27

2012-06-27

2013-10-27

2014-10-23

2014-12-11

2015-01-06

2015-07-14

2015-07-29

2015-09-25

2015-09-29

2015-09-29

2016-04-27

2018-10-23

Family 4/7 - FAMPAT - ©Questel

Title

(WO2011109667)

Master tools with selectively orientable regions for manufacture of patterned sheeting

Images

Publication dates

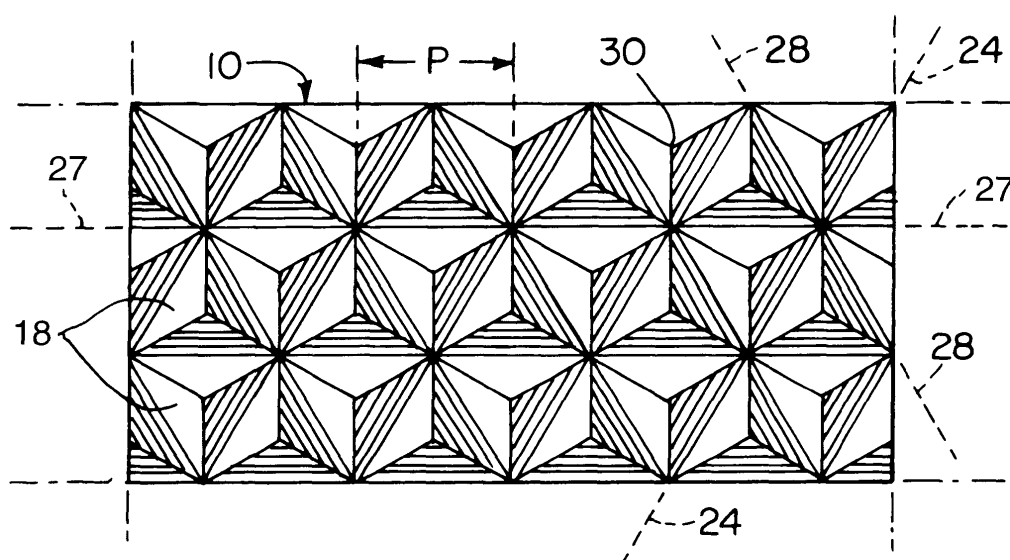
2011-09-08
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 2011-10-12
 2011-11-23
 2012-01-01
 2012-01-01
 2012-01-12
 2012-01-19

Family 5/7 - FAMPAT - ©Questel

Title

(EP1038195)

Miniature micro **prism retroreflector**

Images**Publication data including kind & date**

WO9928771	A1	1999-06-10	WO9928771
CA2312363	A1	1999-06-10	CA2312363
AU1604799	A	1999-06-16	AU9916047
EP1038195	A1	2000-09-27	EP1038195
US6206525	B1	2001-03-27	US6206525
JP2001525556	A	2001-12-11	JP2001525556
JP4443040	B2	2010-03-31	JP4443040

**Abstract**

(EP1038195)

Retroreflective sheeting (10) for forming orientation free cones of reflected light encompassing a 0.5 degree angle of observation is formed of small metal backed **cube corner** prisms (14) in an array in which the size (P) of the prisms are in a range between 0.0005 to 0.003 inches (0.0127-0.0762 mm) on center. The array is formed by casting transparent plastic prisms in a mold formed by ruling three sets of grooves (24, 26, 28) which intersect at an angle. The grooves are spaced apart in the range of 0.0005 to 0.003 inches (0.0127-0.0762 mm) on center. Before or after formation, the prisms are coated with a reflective material (26) such as a metal.

Inventors

ROWLAND WILLIAM P

NILSEN ROBERT B

Latest standardized assignees - inventors removed

ORAFOL AMERICAS

Publication dates

1999-06-10

1999-06-10

1999-06-16

2000-09-27

2001-03-27

2001-12-11

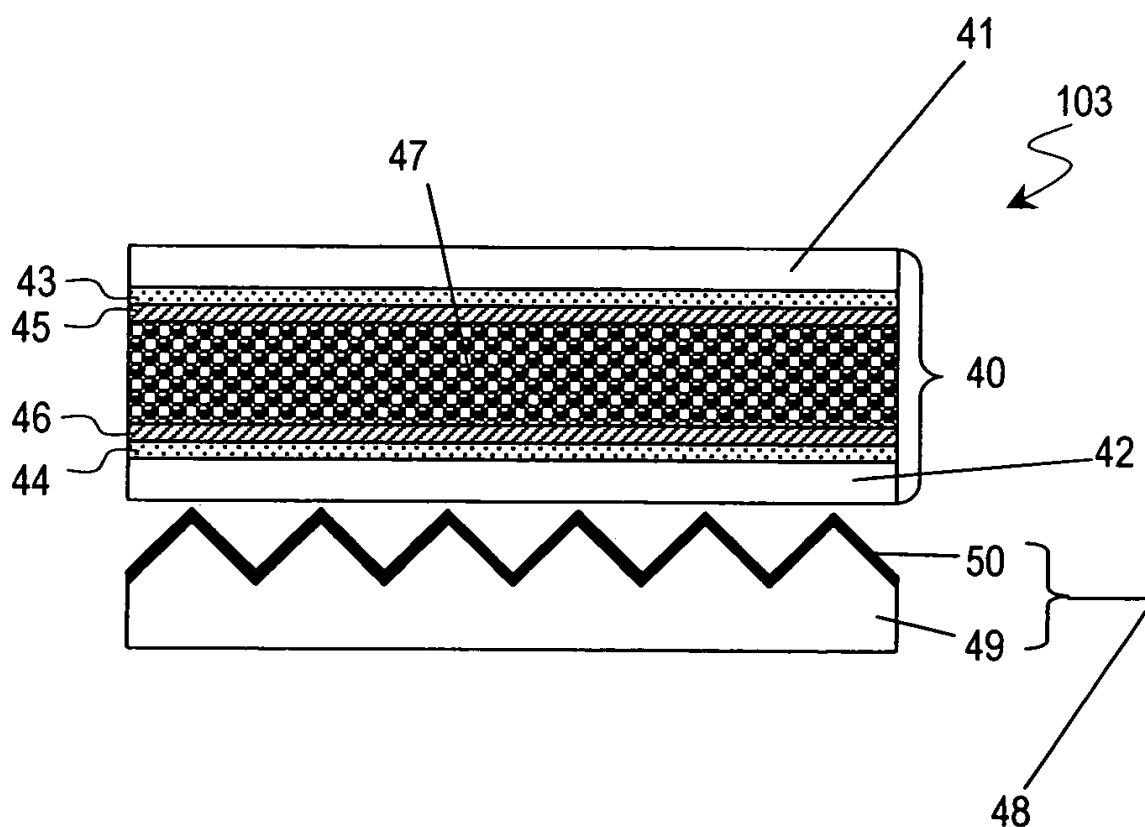
2010-03-31

Family 6/7 - FAMPAT - ©Questel

Title

(US7475997)

Reflective display device with high retroreflectivity

Images**Publication data including kind & date**

US20050088742	A1	2005-04-28	US20050088742
KR20050040742	A	2005-05-03	KR20050040742
CN1612015	A	2005-05-04	CN1612015
JP2005128422	A	2005-05-19	JP2005128422
TW200528858	A	2005-09-01	TW200528858
TWI251105	B	2006-03-11	TWI251105
CN1329769	C	2007-08-01	CN1329769C



KR100748296	B1	2007-08-09	KR100748296
US7475997	B2	2009-01-13	US7475997
JP4229805	B2	2009-02-25	JP4229805

**Abstract**

(US7475997)

A reflective display includes a retroreflective layer and a modulation layer, which is provided closer to a viewer than the retroreflective layer is and which is switchable between first and second states with mutually different optical characteristics. The retroreflective layer includes a two-dimensional arrangement of unit elements, which are arranged at a pitch of at most 250 μm . The retroreflective layer has a retro-reflectivity R_r of at least 45%. The retroreflectivity is defined as a ratio of the intensity of light, which has been reflected from the retroreflective layer and then received at a cone angle of 7.5 degrees by a retroreflectivity measuring system, to that of light, which has been reflected from a dielectric mirror and then received by the same retroreflectivity measuring system.

Inventors

FUJIWARA SAYURI

MINOURA KIYOSHI

Latest standardized assignees - inventors removed

SHARP

Publication dates

2005-04-28

2005-05-03

2005-05-04

2005-05-19

2005-09-01

2006-03-11

2007-08-01

2007-08-09

2009-01-13

2009-02-25

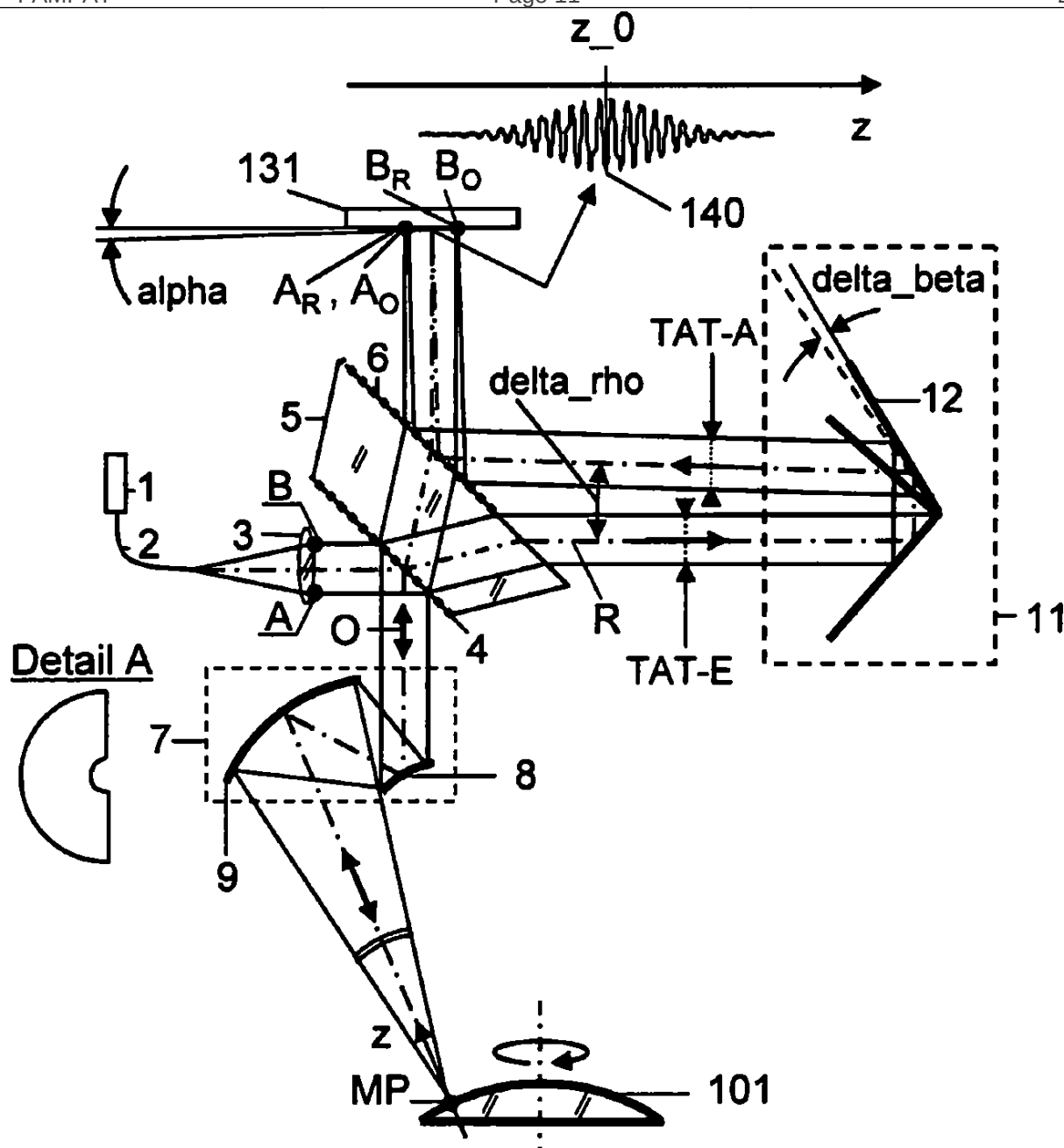
Family 7/7 - FAMPAT - ©Questel

Title

(DE102010046907)

Method for forming robust one shot-interferometer i.e. short coherency interference microscopy, involves evaluating interferogram for determination form, micro form, ripple and/or roughness or optical path length

Images



Publication data including kind & date

DE102010046907	A1	2012-02-16	DE102010046907
DE102010046907	B4	2013-01-31	DE102010046907



Abstract

(DE102010046907)

The **method** involves generating electromagnetic radiation by spatial short coherence interferences. Object and reference beam bundles are folded to each other on a rasterized detector (131). A signal maximum or signal minimum is formed in the spatial interferogram on the detector, where the spatial interferogram is detected by the detector. The spatial interferogram is evaluated for determination spacing, depth, profile, form, micro form, ripple and/or roughness or optical path length in or at a biological object or technical object (101) or object detail. An independent claim is also included for an arrangement for operating a robust one shot-interferometer in a form of short coherence interference microscopy, comprising a triple mirror arrangement.

Inventors

KOERNER KLAUS DR ING
OSTEN WOLFGANG PROF DR

Latest standardized assignees - inventors removed

UNIVERSITAET STUTTGART

Publication dates

2012-02-16

2013-01-31