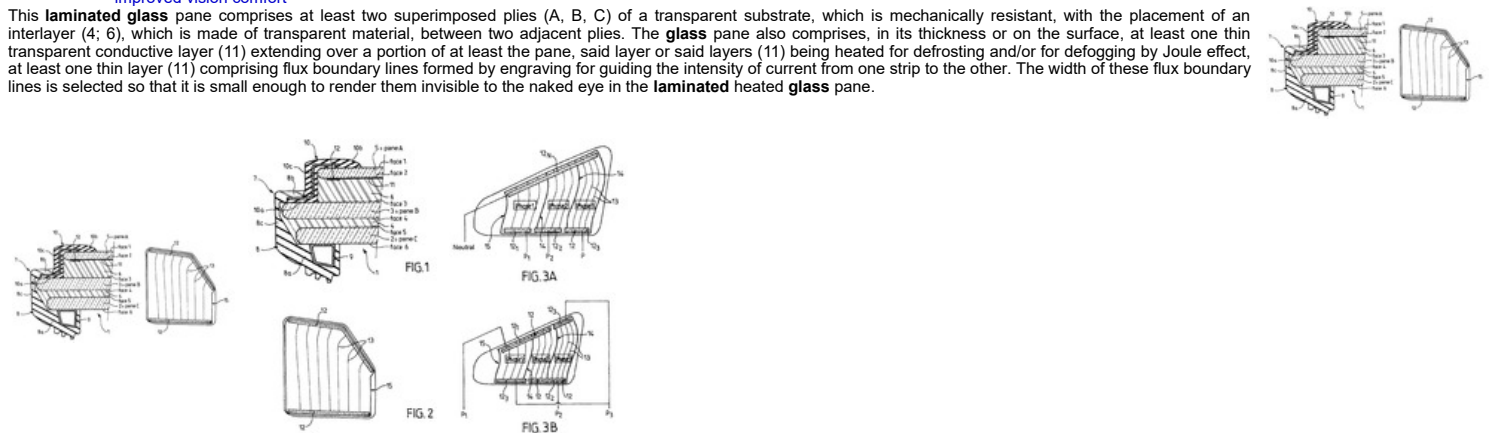
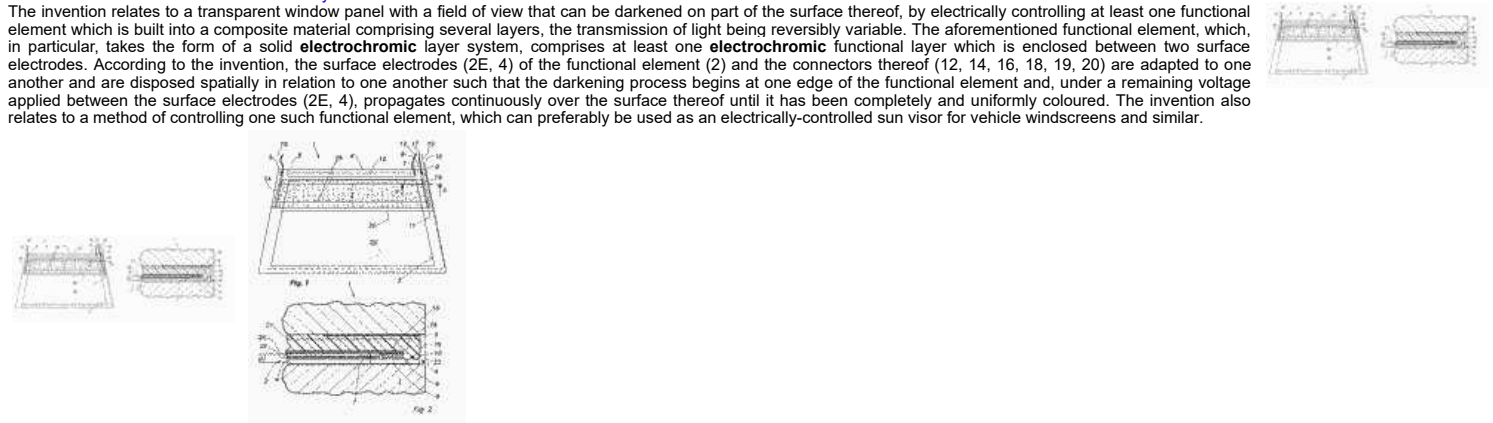
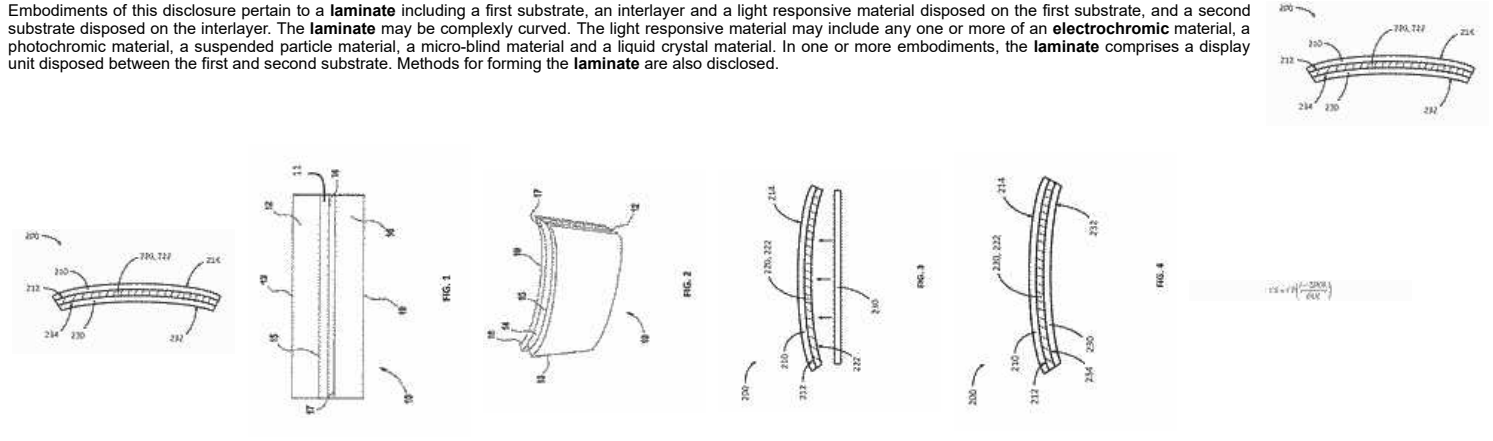


102 results for ((windshield or windscreen)/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX AND (glass+)/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX AND (laminat+ or glaz+)/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX AND (SPD or PDLC or electrochromic)/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX AND ((fluid+ or flow+) 5d (circuit+ or channel+))/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX) - Collection: FAMPAT

#	Title	Publication number	1st app. date	Applicant/Assignee	1st publ. date	Publ. date
1.	Heated laminated glass pane having an improved vision comfort	FR2888082	2005-06-30	SAINT GOBAIN GLASS*	2007-01-05	2007-01-05
This laminated glass pane comprises at least two superimposed plies (A, B, C) of a transparent substrate, which is mechanically resistant, with the placement of an interlayer (4; 6), which is made of transparent material, between two adjacent plies. The glass pane also comprises, in its thickness or on the surface, at least one thin transparent conductive layer (11) extending over a portion of at least the pane, said layer or said layers (11) being heated for defrosting and/or for defogging by Joule effect, at least one thin layer (11) comprising flux boundary lines formed by engraving for guiding the intensity of current from one strip to the other. The width of these flux boundary lines is selected so that it is small enough to render them invisible to the naked eye in the laminated heated glass pane. 						
2.	Method of controlling a surface element that can be electrochromically controlled	WO2005076061	2004-02-05	SAINT GOBAIN GLASS* SAINT GOBAIN SEKURIT	2005-08-18	2005-08-18
The invention relates to a transparent window panel with a field of view that can be darkened on part of the surface thereof, by electrically controlling at least one functional element which is built into a composite material comprising several layers, the transmission of light being reversibly variable. The aforementioned functional element, which, in particular, takes the form of a solid electrochromic layer system, comprises at least one electrochromic functional layer which is enclosed between two surface electrodes. According to the invention, the surface electrodes (2E, 4) of the functional element (2) and the connectors thereof (12, 14, 16, 18, 19, 20) are adapted to one another and are disposed spatially in relation to one another such that the darkening process begins at one edge of the functional element and, under a remaining voltage applied between the surface electrodes (2E, 4), propagates continuously over the surface thereof until it has been completely and uniformly coloured. The invention also relates to a method of controlling one such functional element, which can preferably be used as an electrically-controlled sun visor for vehicle windscreens and similar. 						
3.	Light-responsive thin glass laminates	WO2016196531	2016-06-01	CORNING*	2016-12-08	2016-12-08
Embodiments of this disclosure pertain to a laminate including a first substrate, an interlayer and a light responsive material disposed on the first substrate, and a second substrate disposed on the interlayer. The laminate may be complexly curved. The light responsive material may include any one or more of an electrochromic material, a photochromic material, a suspended particle material, a micro-blind material and a liquid crystal material. In one or more embodiments, the laminate comprises a display unit disposed between the first and second substrate. Methods for forming the laminate are also disclosed. 						

4. Control device for at least one **electrochromic** window, control system for one or more **electrochromic** windows, means of transport with at least one **electrochromic** window and with at least one control device, and method of activating ...

WO2009124647

2008-04-10

SAGE ELECTROCHROMICS*
SAINT GOBAIN GLASS
SAINT GOBAIN SEKURIT

2009-10-15 2009-10-15

The invention relates to a control device for at least one **electrochromic** window (100, 100.1, 100.2, 100',...) with - means (106, 108) for generating a charging current, to bring the window from a first state into a second state, wherein the window is darker in the second state than in the first state, - means (1 1 2, 1 16) for discharging the window, to bring the window from the second state into the first state, wherein the discharging of the window can be triggered by an emergency signal (S 1, S2).

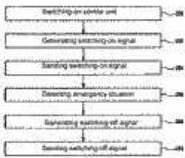
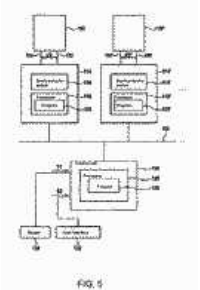
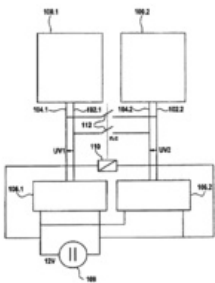
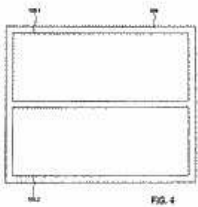
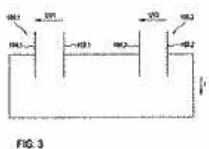
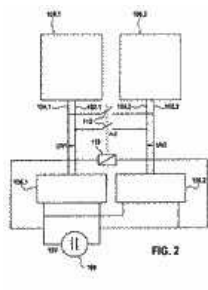
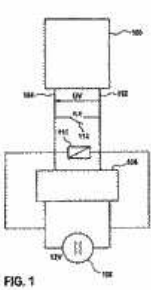
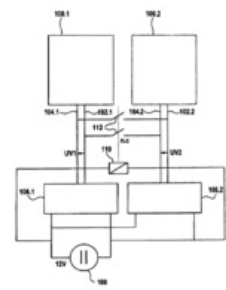
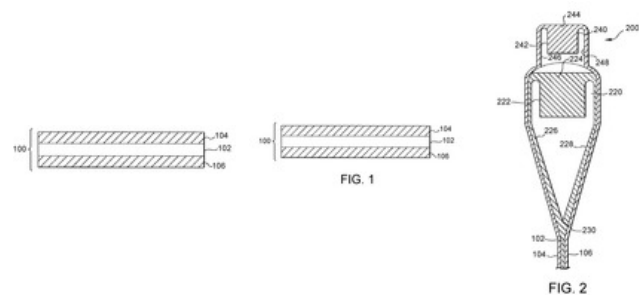
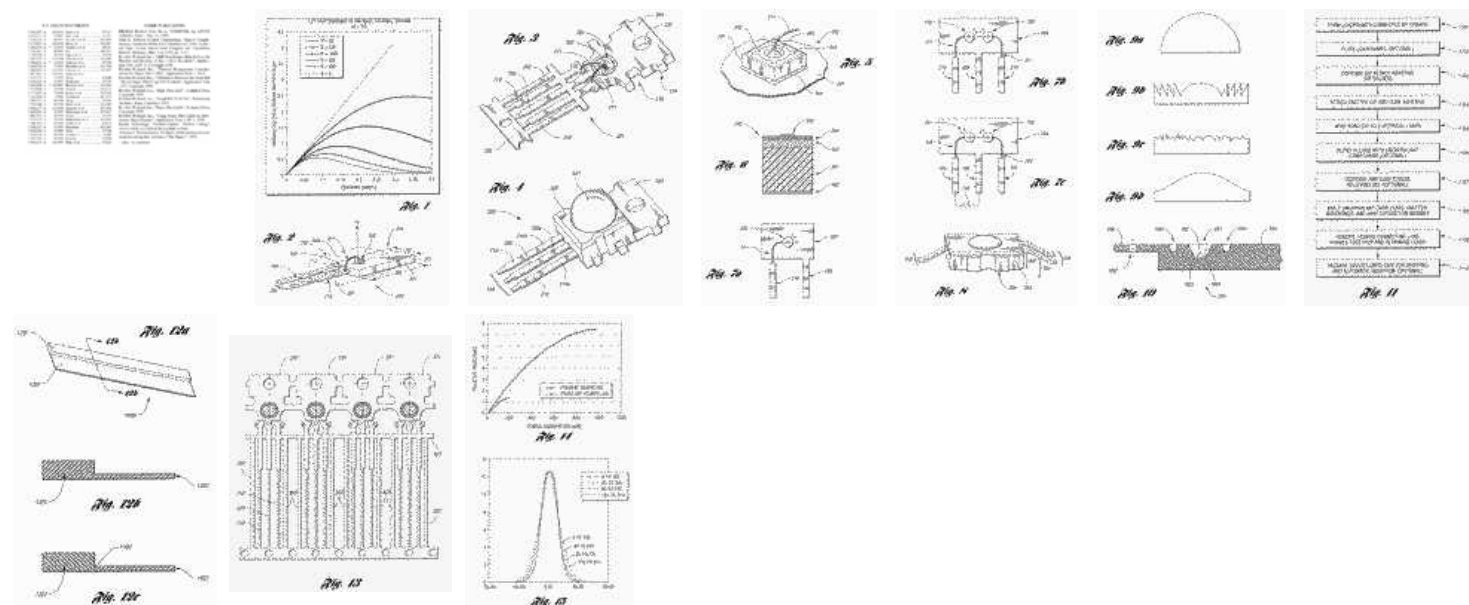
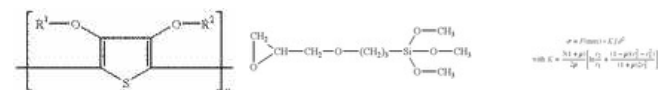
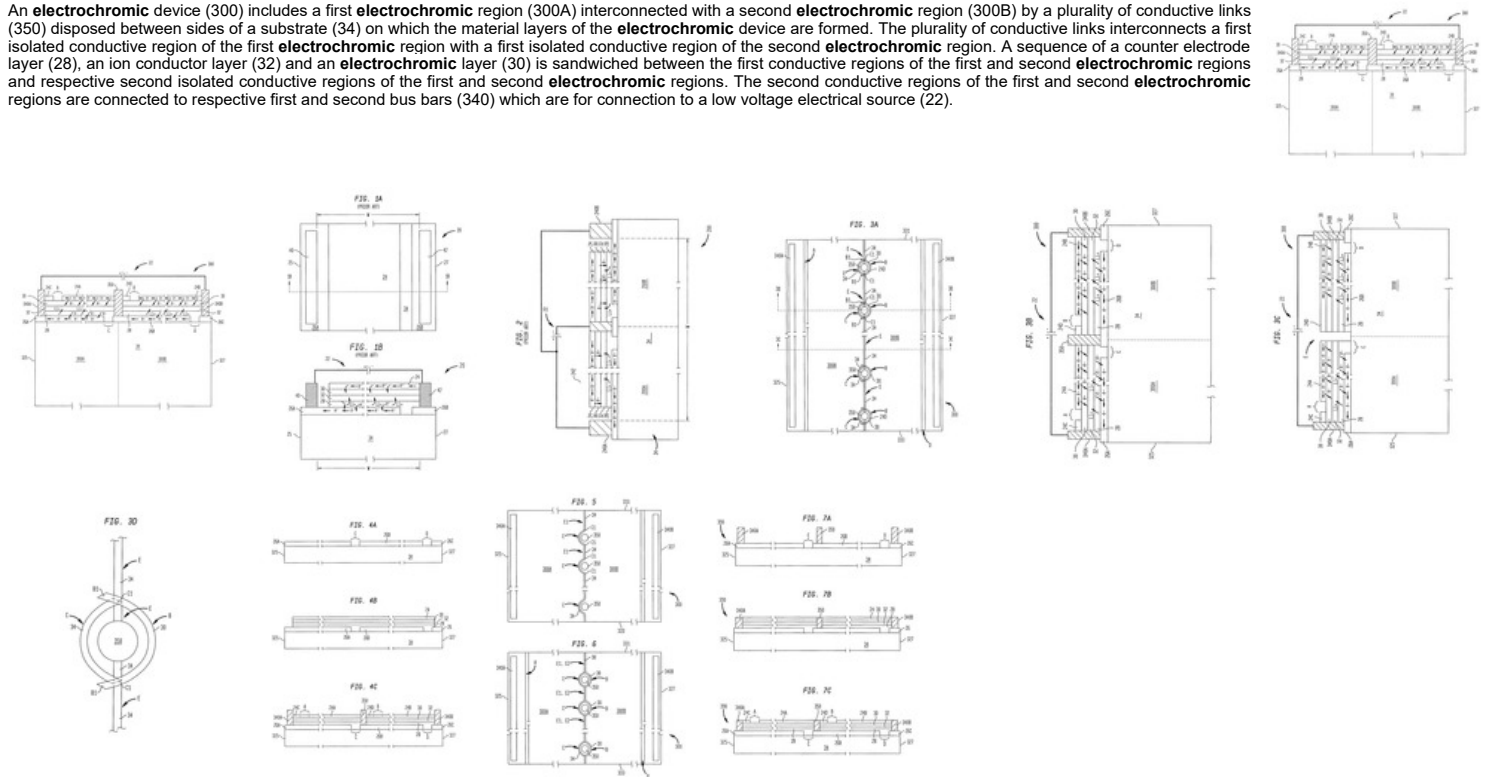


FIG. 6

[illegible]
$$\left[\text{R}^1 - \text{O} - \text{C}_4\text{H}_2\text{S} - \text{O} - \text{R}^2 \right]$$


An **electrochromic** device (300) includes a first **electrochromic** region (300A) interconnected with a second **electrochromic** region (300B) by a plurality of conductive links (350) disposed between sides of a substrate (34) on which the material layers of the **electrochromic** device are formed. The plurality of conductive links interconnects a first isolated conductive region of the first **electrochromic** region with a first isolated conductive region of the second **electrochromic** region. A sequence of a counter electrode layer (28), an ion conductor layer (32) and an **electrochromic** layer (30) is sandwiched between the first conductive regions of the first and second **electrochromic** regions and respective second isolated conductive regions of the first and second **electrochromic** regions. The second conductive regions of the first and second **electrochromic** regions are connected to respective first and second bus bars (340) which are for connection to a low voltage electrical source (22).



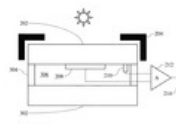
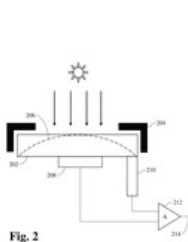


Fig. 3

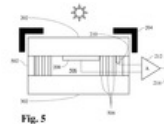


Fig. 9

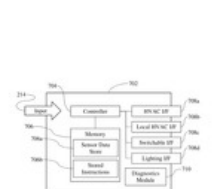


Fig. 2

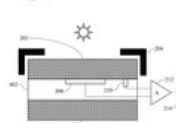


Fig. 4

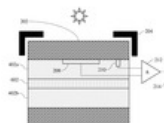


Fig. 6

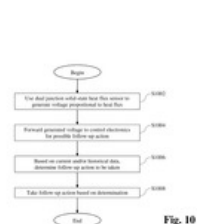
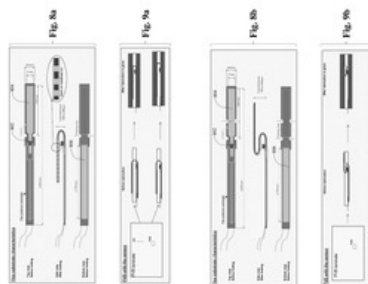


Fig. 10

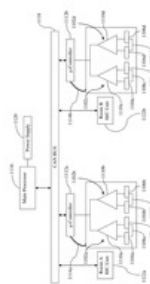


Fig. 11

2003-07-03 2003-07-03

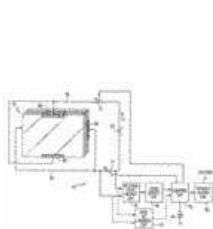


FIG. 1

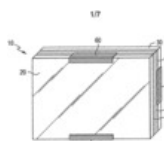
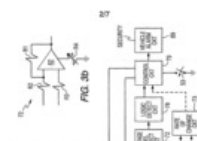


FIG. 2.



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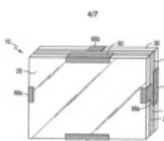
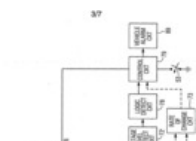
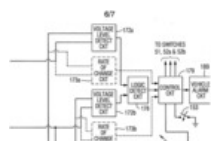
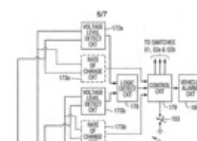


FIG. 4



1

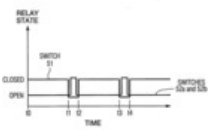


FIG. 7

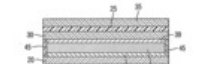
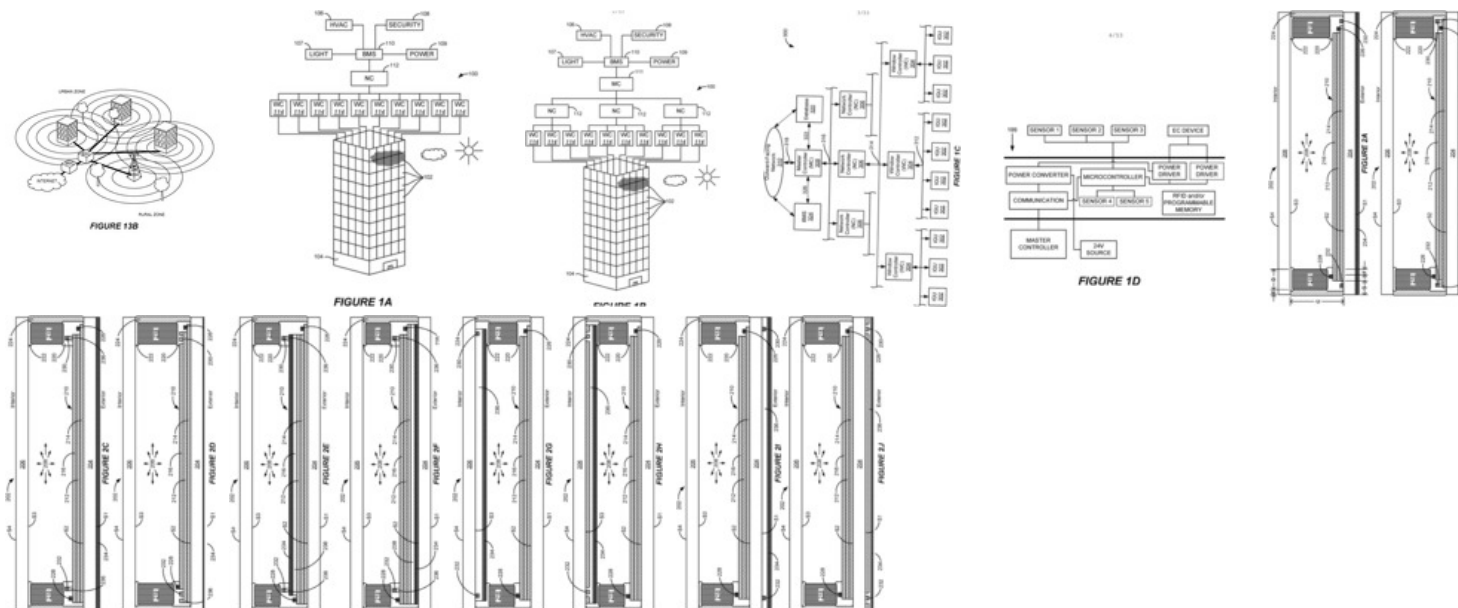


FIG. 8

FIGURE 13B



2014-09-12 2014-09-12

FIG. 1

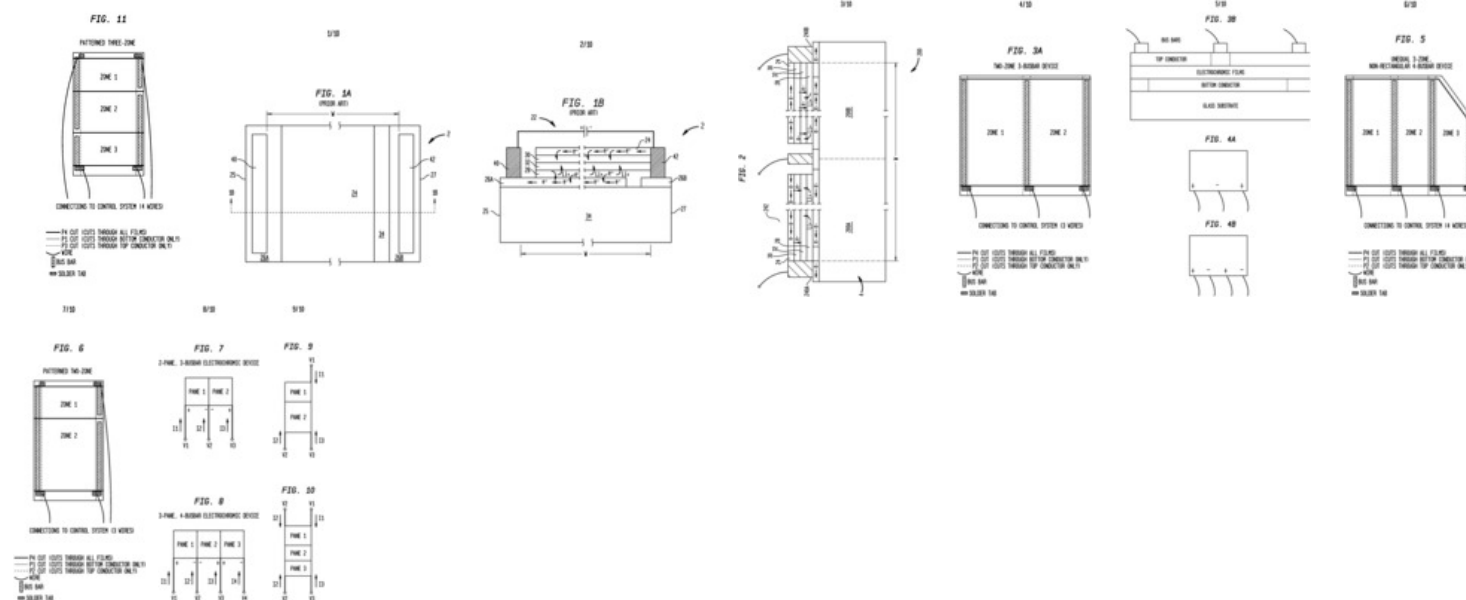
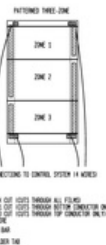
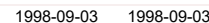


FIG. 1A and FIG. 1B are cross-sectional views of the first and second embodiments of the invention. FIG. 1A shows a frame with a transparent layer and a light source. FIG. 1B shows a similar frame with a different internal structure.



ally

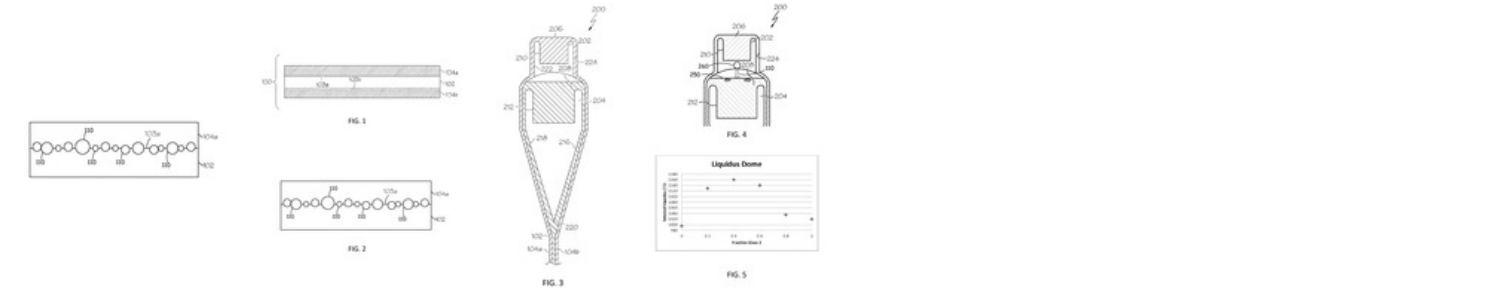


NORMALLY USED WITH DRAWING BOARD

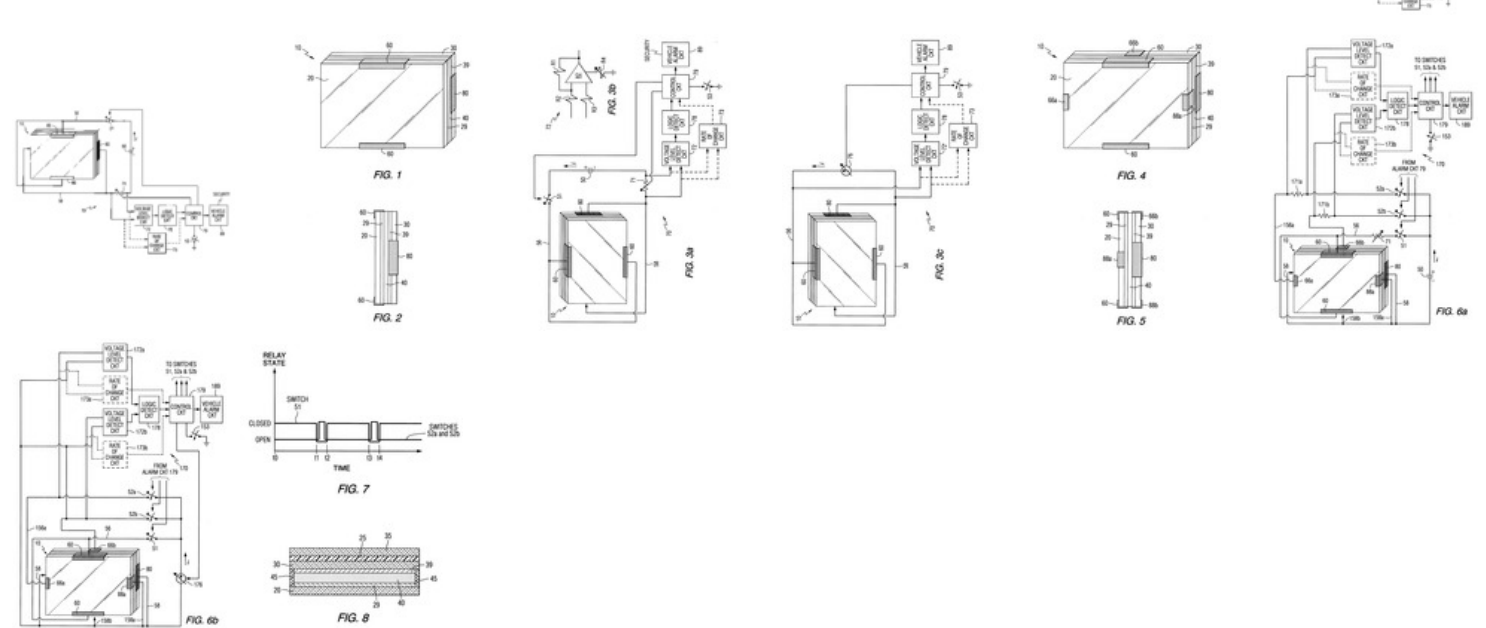
DRAWING BOARD ATTACHING



16.	Light-scattering glass articles and methods for the production thereof	WO2016196611	2016-06-01	CORNING*	2016-12-08	2016-12-08
According to embodiments disclosed herein, light-scattering laminated glass articles may include a first glass layer, a second glass layer, and a light-scattering component. The first glass layer may be formed from a first glass composition. The second glass layer may be formed from a second glass composition and fused to the first glass layer. The light-scattering component may be disposed at an interface of the first glass layer and the second glass layer. The light-scattering component may include a different composition or material phase than the first glass layer and the second glass layer. Also disclosed herein are methods for producing light-scattering laminated glass articles.						



17.	Electrochromic transparency incorporating security system	US20020021481	2000-12-15	PPG INDUSTRIES*	2002-02-21	2002-02-21
An electrochromic window assembly includes a security system for monitoring breakage of the electrochromic window assembly. Control circuitry is connected to the electrochromic window assembly for monitoring an electrical characteristic of one or more conductive coatings within the electrochromic window assembly, such as electrical resistance. Upon detecting a change in the electrical resistance, such as that caused by a break in one or more conductive coating, an alarm signal is generated and is sent to an alarm trigger circuit for activating an alarm. A method for monitoring penetration or breakage of an electrochromic window assembly is also provided, which method involves applying electrical activation to an electrochromic assembly and monitoring for a change in an electrical characteristic based on the applied electrical potential. Electrochromic window assemblies incorporating security alarm features in accordance with the present invention are particularly useful in automobile applications.						



18.

Variable reflectance mirror reflective element for exterior mirror assembly

US20070279752

2007-08-13

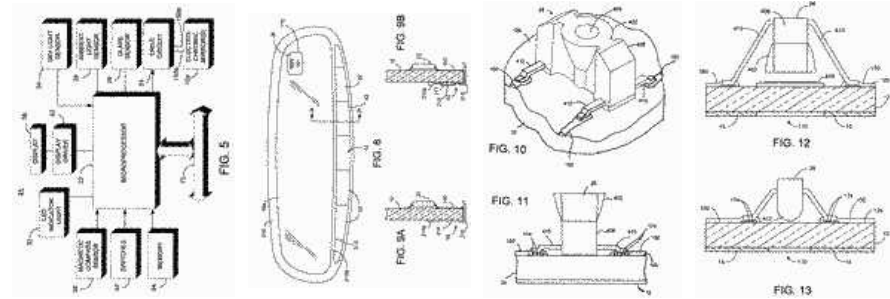
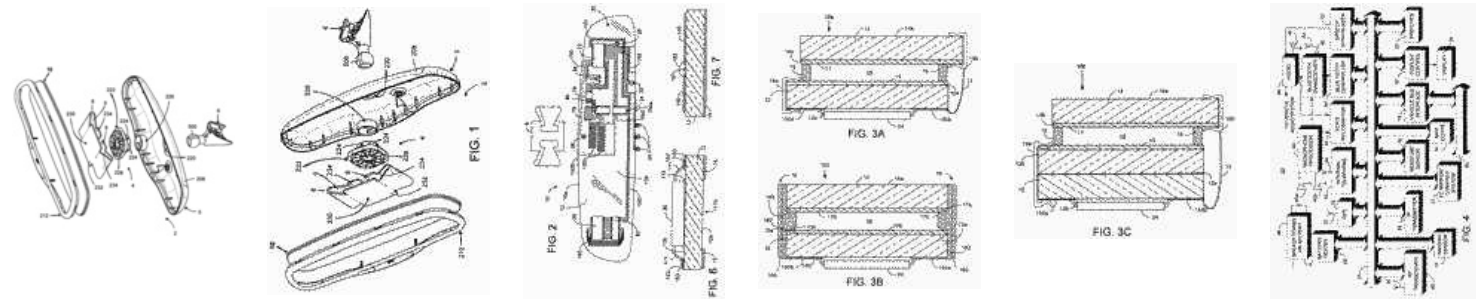
DONNELLY*

2007-12-06

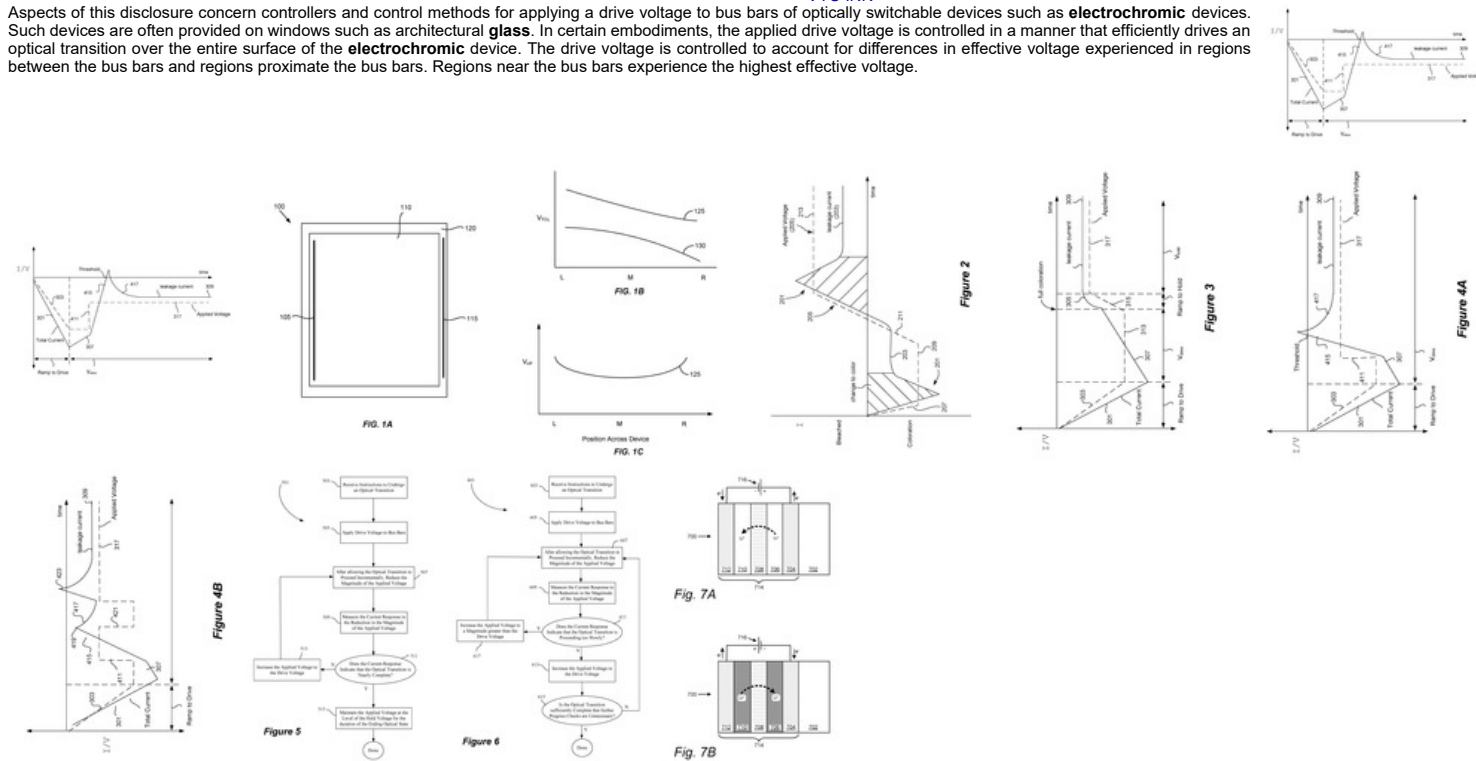
2007-12-06

A variable reflectance exterior mirror reflective element suitable for use in a vehicular exterior rearview mirror assembly a front substrate and a rear substrate and an **electrochromic** medium disposed therebetween. A mirror reflector is disposed at a third surface of the rear substrate. A perimeter layer is disposed at a second surface of the front substrate proximate a perimeter edge and generally conceals the perimeter seal from view by a person viewing through the front substrate. Light that reflects off of the mirror reflector and passes through the **electrochromic** medium and the front substrate exhibits a substantially non-spectrally selective reflectance characteristic when no voltage is applied to the **electrochromic** medium. A display is disposed proximate a fourth surface of the rear at a light-transmitting portion of the mirror reflector established by laser ablation. The display is configured to be operated responsive to a blind spot detector of the vehicle.

A rearview assembly (10) comprising a rearview element (10), a rearview element support assembly supporting the rearview element and a mount (6) adjacent the housing. The mount (6) is configured to connect the rearview assembly (4) to a **windshield**. At least one of the rearview element support assembly and the mount comprises a crush bracket (8) having at least two legs adapted to be compressed as a force strikes a front of the rearview element. The crush bracket (8) can include at least one tab contacting a heat emitting component and/or an electrically conductive component (285) of a **circuit** to provide a heat sink for the heat emitting component or a ground for the electrically conductive component, respectively.



Aspects of this disclosure concern controllers and control methods for applying a drive voltage to bus bars of optically switchable devices such as **electrochromic** devices. Such devices are often provided on windows such as architectural **glass**. In certain embodiments, the applied drive voltage is controlled in a manner that efficiently drives an optical transition over the entire surface of the **electrochromic** device. The drive voltage is controlled to account for differences in effective voltage experienced in regions between the bus bars and regions proximate the bus bars. Regions near the bus bars experience the highest effective voltage.





A diagram of a cell showing the cell wall, cell membrane, and internal organelles. The cell wall is the outermost layer, followed by the cell membrane. Inside the cell, there are various organelles, including a large central vacuole, a nucleus, and other smaller structures.



24.

Surface display units with opaque screen

WO2016183059

2016-05-10

CORNING*

2016-11-17

2016-11-17

A surface display unit incorporates an opaque screen (180) and an image panel (110). The opaque screen is disposed on the front side of the image panel which provides an optical image. The opaque screen generally hides the image panel while the surface display unit is not in use. When the image panel is activated to provide an optical image, the opaque screen provides a suitable level of transparency so that a viewer can observe the optical image with sufficient clarity. The opaque screen can provide optical enhancement, decorative texture, and/or mechanical support and include antiglare, anti-reflective, and anti-scratch films (140, 150, 160). The opaque screen can be a laminated polymer film, an electrochromic or photochromic system, or a switchable dye doped liquid crystal material.

25.

Process for fabricating a mask with submillimetre apertures for the production of a submillimetre grid, and submillimetre grid

FR2913972

2007-03-21

SAINT GOBAIN GLASS*

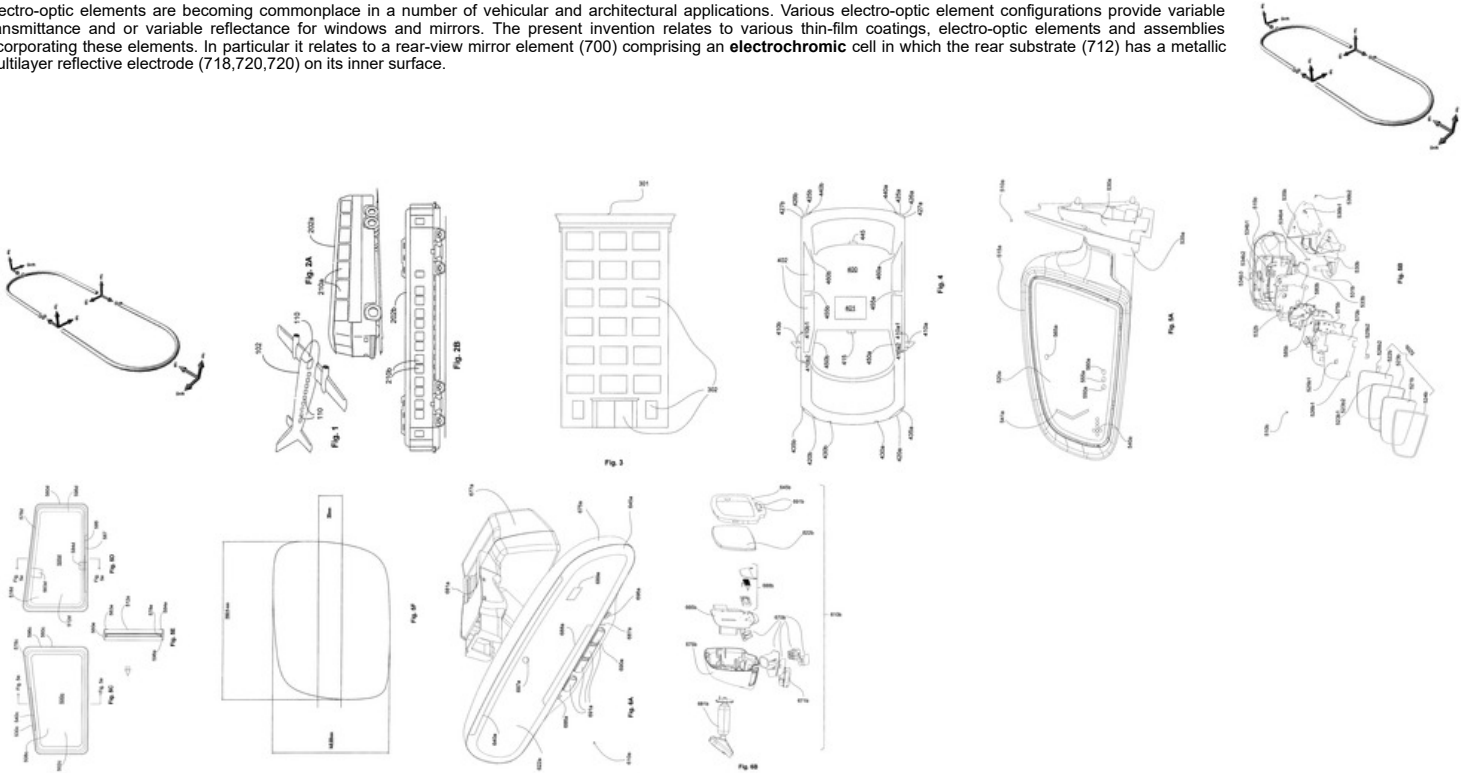
2008-09-26

2008-09-26

Process for fabricating a mask with submillimetre apertures on a surface portion of a substrate, characterized in that a "mask" layer is deposited using a solution of stabilized colloidal particles dispersed in a solvent; and the mask layer is dried until an irregular two-dimensional array of interstices is obtained, having an approximately straight edge, giving a mask with a random mesh of interstices in at least one direction. Submillimetre grid obtained by this process.

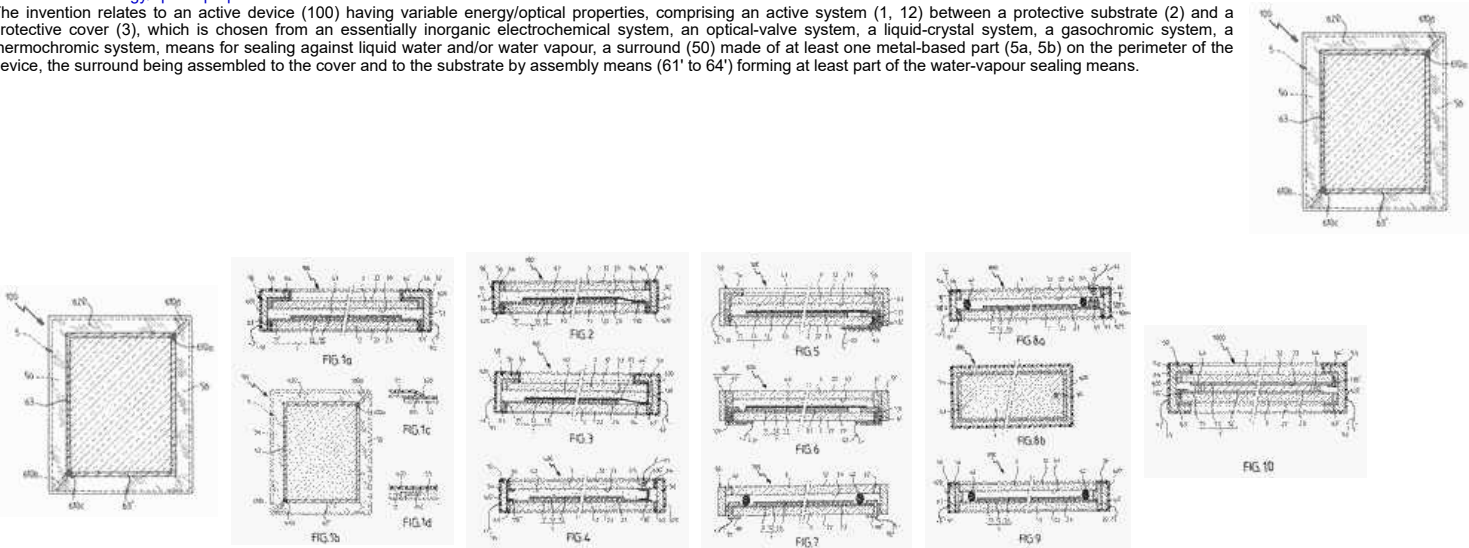
26.	Electro-optic elements incorporating improved thin-film coatings	WO2007100921	2007-03-02	ANDERSON JOHN S BRUMMEL NELSON F CAMMENG DAVID J DOZEMAN GARY J FORGETTE JEFFREY A GENTEX* LUTEN HENRY A NEUMAN GEORGE A PERRON LANSEN M POE G BRUCE	2007-09-07	2007-09-07
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Electro-optic elements are becoming commonplace in a number of vehicular and architectural applications. Various electro-optic element configurations provide variable transmittance and or variable reflectance for windows and mirrors. The present invention relates to various thin-film coatings, electro-optic elements and assemblies incorporating these elements. In particular it relates to a rear-view mirror element (700) comprising an **electrochromic** cell in which the rear substrate (712) has a metallic multilayer reflective electrode (718,720,720) on its inner surface.

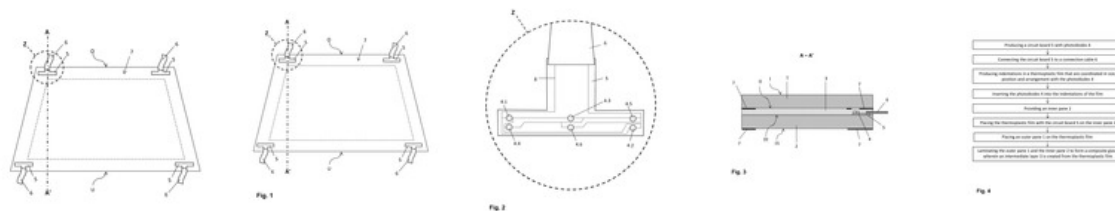
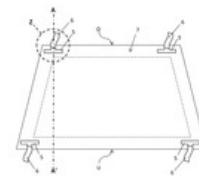


27.	Active device having variable energy/optical properties	WO2008012461	2006-07-28	SAINT GOBAIN GLASS*	2008-01-31	2008-01-31
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The invention relates to an active device (100) having variable energy/optical properties, comprising an active system (1, 12) between a protective substrate (2) and a protective cover (3), which is chosen from an essentially inorganic electrochemical system, an optical-valve system, a liquid-crystal system, a gasochromic system, a thermochromic system, means for sealing against liquid water and/or water vapour, a surround (50) made of at least one metal-based part (5a, 5b) on the perimeter of the device, the surround being assembled to the cover and to the substrate by assembly means (61' to 64') forming at least part of the water-vapour sealing means.



The invention relates to a vehicle composite screen having an integrated light sensor, at least comprising an outer pane (1) and an inner pane (2) which are interconnected by a thermoplastic intermediate layer (3), a plurality of photodiodes (4) located on a **circuit** board (5) being arranged between the outer pane (1) and the inner pane (2), wherein said photodiodes (4) are SMD components and are arranged on the **circuit** board (5) as groups of photodiodes (4) connected in parallel, all groups being connected to a common electrical inlet (9) and each group being connected to a separate electrical outlet (10.1, 10.2).



29. Percolated metal structure with **electrochromic** and photochromic properties

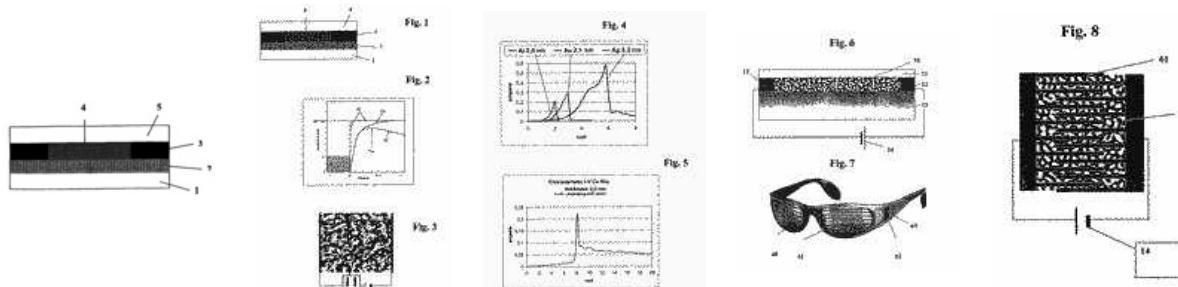
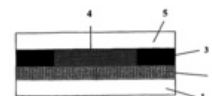
ITTO20021110

2002-12-20

CENTRO RICERCHE FIAT*
JI Â· ELE Â· EFFE Â· SOCIETA Â·
CONSORTILE Â· PELL Â· ATIONY

2004-06-21	2004-06-21
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Bidimensional or three-dimensional, single-layer or multilayer nanostructure, whose electric conductivity β in the total structure has a highly non-linear behavior due to local tunnel effect between adjacent clusters, and it can be varied at will by varying the voltage applied to the electrodes.



30 Busbars for electrically powered cells

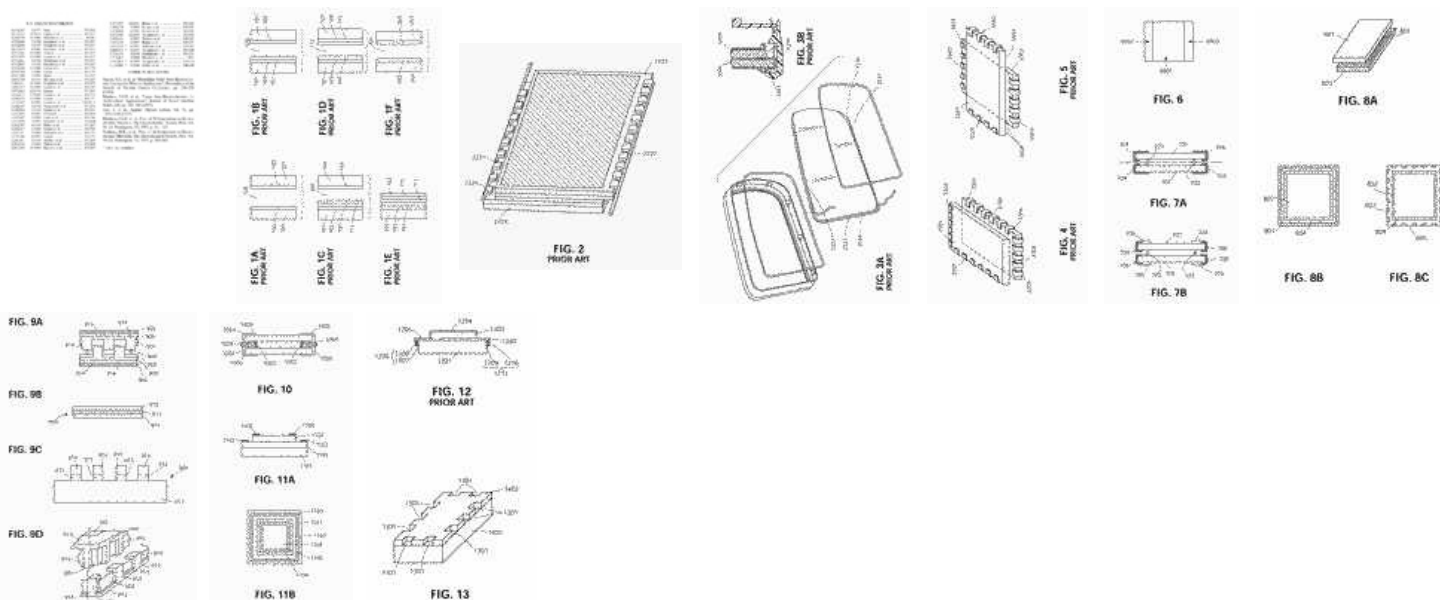
US6317248

1999-07-02

DONNELLY*

2001-11-13	2001-11-13
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Edge busbars on a substantial perimeter or an **electrochromic** device are disclosed having electrical paths wrapping over the perimeter edge. Internal busbars interior from the perimeter are disclosed which lower the conductivity of the conductive layer of an **electrochromic** device. Signals supplied to the busbars to control the **electrochromic** device are controlled by a switching power supply that allows the maintaining of the color of the **electrochromic** device without application of continuous power.



31.

Local advertising content on an interactive head-mounted eyepiece

WO2011106798

2011-02-28

MICROSOFT TECHNOLOGY LICENSING* OSTERHOUT

2011-09-01

2011-09-01

This disclosure concerns an interactive head-mounted eyepiece including an optical assembly through which the user views a surrounding environment and displayed content. The displayed content includes a local advertisement, wherein the location of the eyepiece is determined by an integrated location sensor and wherein the local advertisement has a relevance to the location of the eyepiece. The head mounted eyepiece may also include an audio device and the displayed content may comprise local advertisements and audio.

32.

Vehicle air conditioner having refrigerant cycle with heating function

US20030046943

2002-06-12

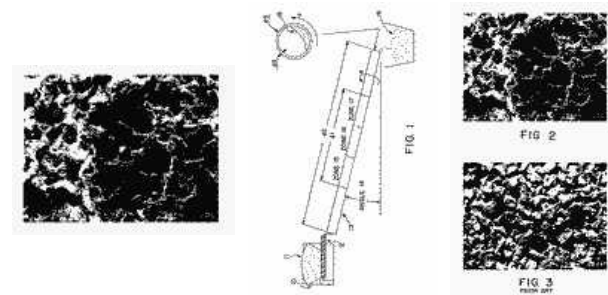
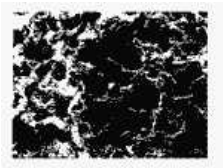
DENSO*

2003-03-13

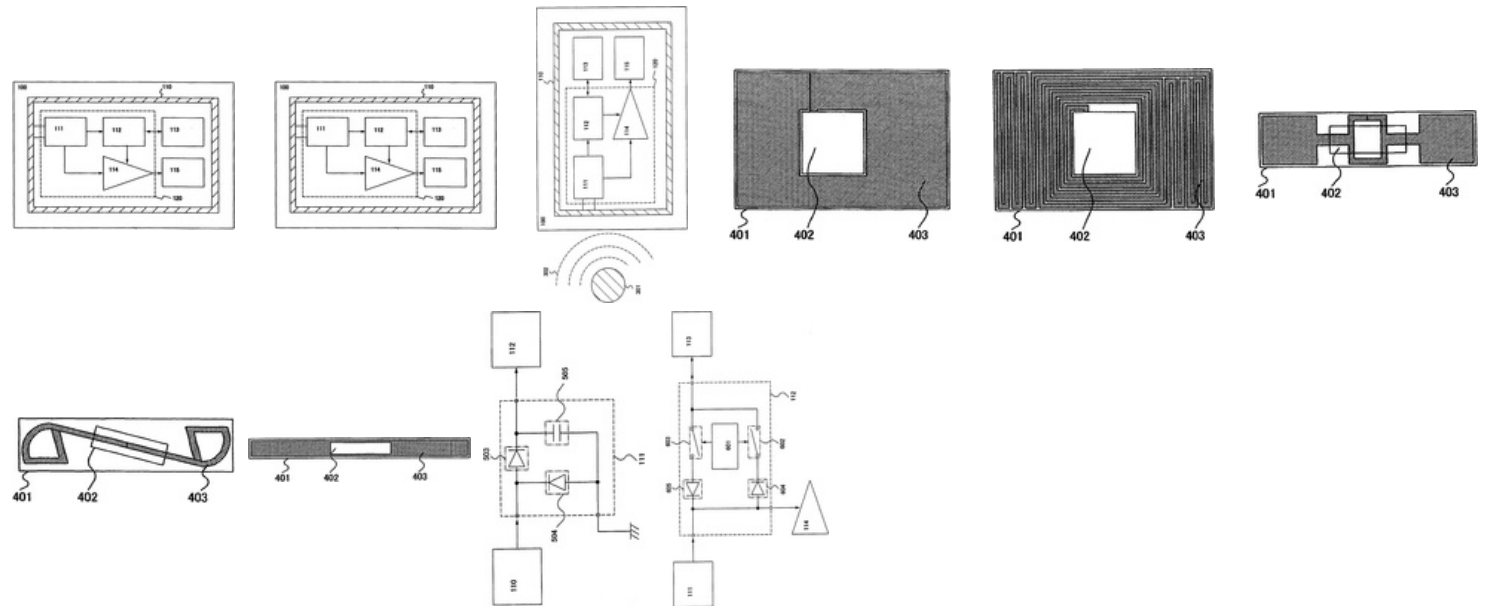
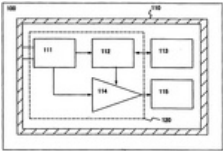
2003-03-13

In a vehicle air conditioner, a refrigerant cycle system is constructed to switch a cooling refrigerant cycle (C) where an interior heat exchanger (18) is used as an evaporator, and a hot gas heater cycle (H) where the interior heat exchanger is used as a radiator. Further, it is determined whether the interior heat exchanger has a quantity of retained water in a heating mode due to the hot gas heater cycle. When it is determined that the quantity of retained water is in the interior heat exchanger in the heating mode, operation of a compressor (10) of the refrigerant cycle system is intermittently controlled so that temperature of air blown from the interior heat exchanger becomes lower than temperature of a vehicle windshield. <IMAGE>

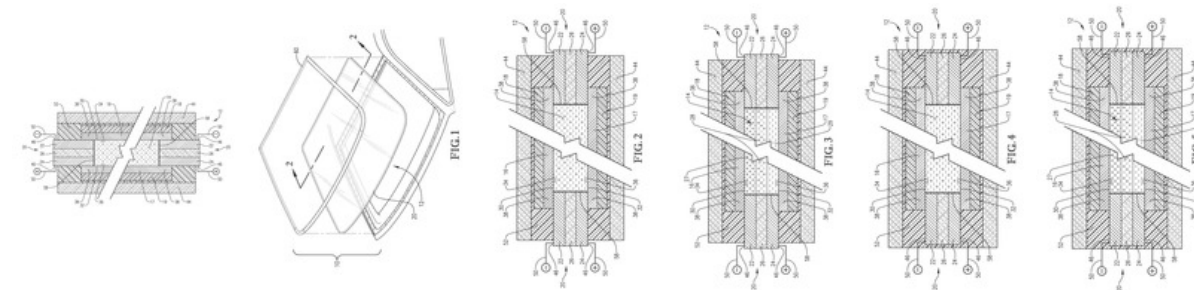
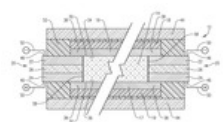
A bonded abrasive tool, having a structure permeable to **fluid flow**, comprises sintered agglomerates of a plurality of abrasive grains and a binding material, the binding material being characterized by a melting temperature between 500 and 1400°C, and the sintered agglomerates having loose packing density of $\rho_{loose} \approx 1.6\text{g/cc}$ and three-dimensional shape; a bond material; and about 35-80 volume % total porosity, including at least 30 volume % interconnected porosity. Methods for making the sintered agglomerates e.g., Fig. 1, and abrasive tools containing the sintered agglomerates are described.



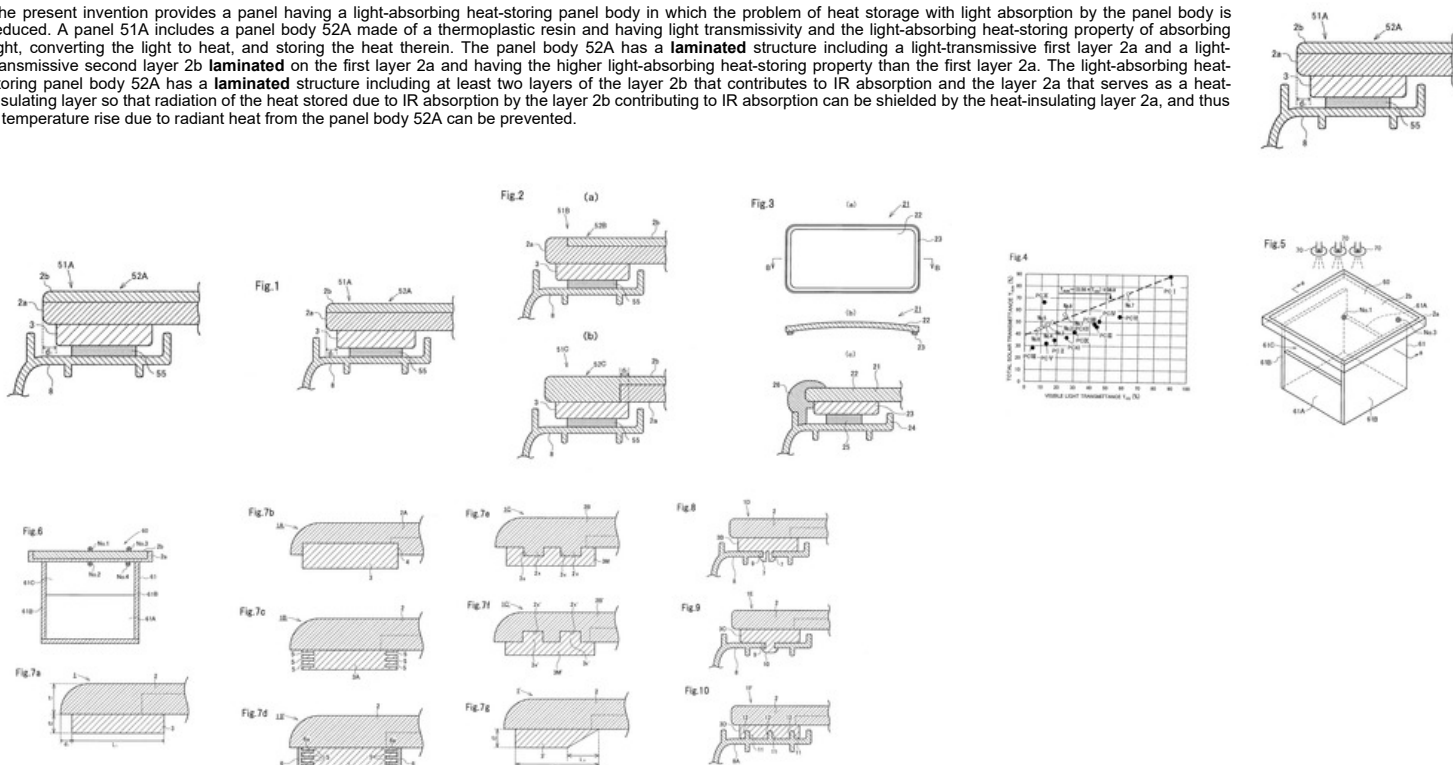
The present invention provides a radio field intensity measurement device having a display portion with improved visibility, in the case of measuring a weak radiowave from a long distance. In the radio field intensity measurement device, a battery is provided as a power source for power supply and the battery is charged by a received radiowave. When a potential of a signal obtained from the received radiowave is higher than an output potential of the battery, the power is stored in the battery. On the other hand, when the potential of the signal obtained from the received radiowave is lower than the output potential of the battery, power produced by the battery is used as power to drive the radio field intensity measurement device. As an element to display the radio field intensity, a thermochromic element or an **electrochromic** element is used.



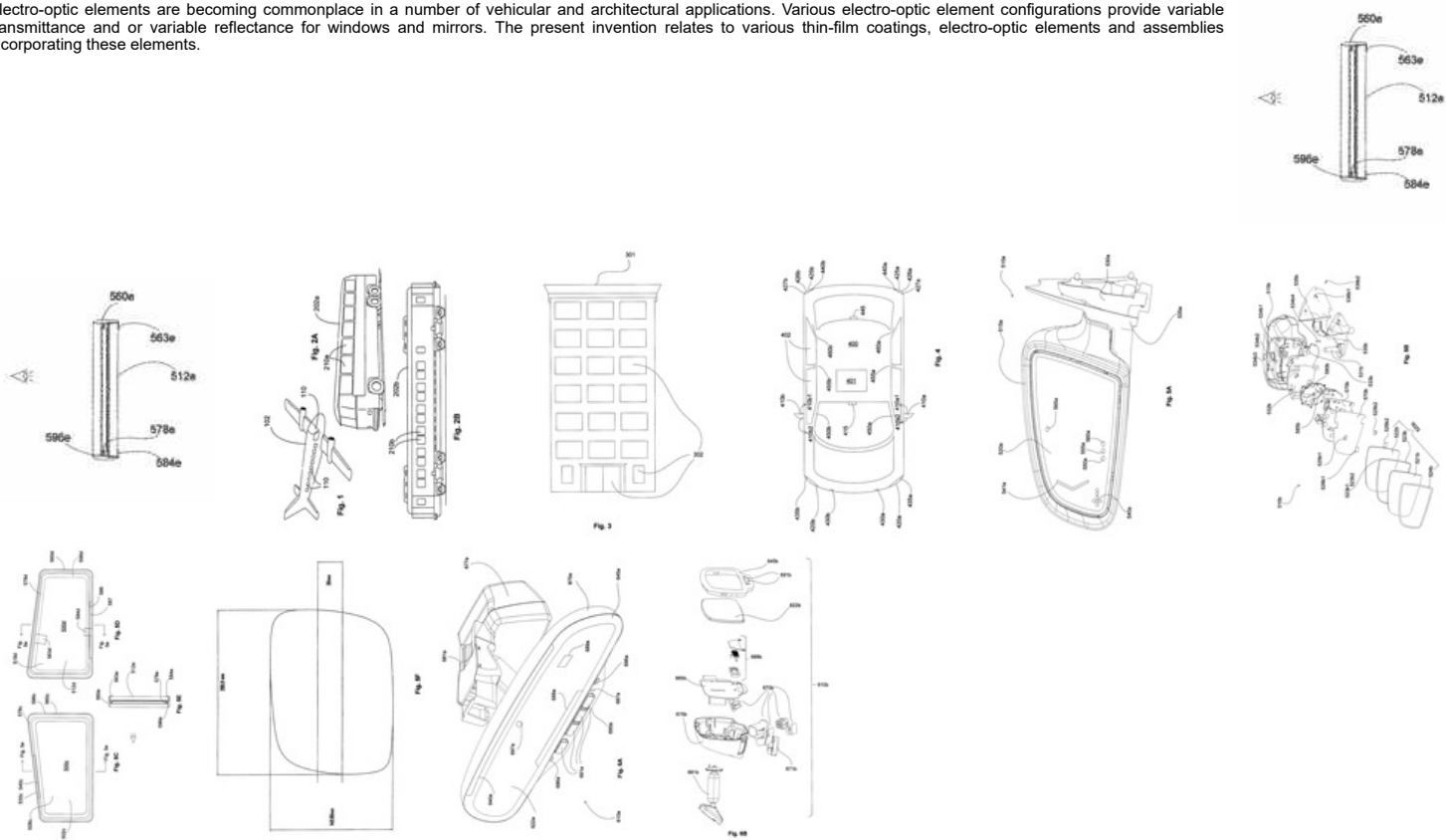
An electroactive package is disclosed that includes an active film and a pair of transparent conductive layers positioned on opposite sides of the active film. The transparent conductive layers each include an overhang section that extends beyond an edge of the active film, with the overhang sections being located at a periphery of the electroactive package. A bus bar is disclosed that comprises a pair of electrically-conductive layers and an insulative layer positioned between the electrically-conductive layers. The bus bar extends along at least a portion of the periphery of the electroactive package and is positioned between the overhang sections of the transparent conductive layers. Also disclosed are electroactive windows, and methods of making them.



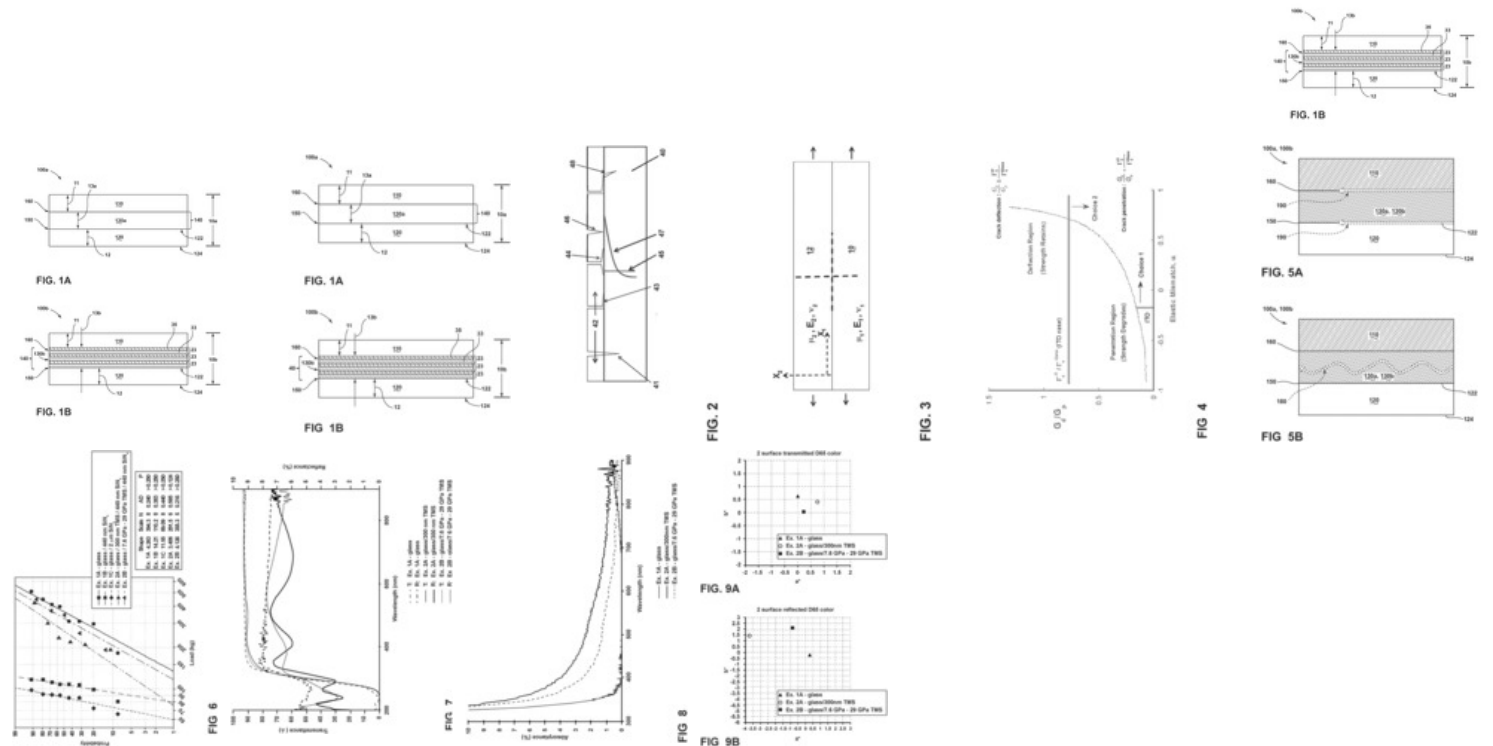
The present invention provides a panel having a light-absorbing heat-storing panel body in which the problem of heat storage with light absorption by the panel body is reduced. A panel 51a includes a panel body 52a made of a thermoplastic resin and having light transmissivity and the light-absorbing heat-storing property of absorbing light, converting the light to heat, and storing the heat therein. The panel body 52a has a **laminated** structure including a light-transmissive first layer 2a and a light-transmissive second layer 2b **laminated** on the first layer 2a and having the higher light-absorbing heat-storing property than the first layer 2a. The light-absorbing heat-storing panel body 52a has a **laminated** structure including at least two layers of the layer 2b that contributes to IR absorption and the layer 2a that serves as a heat-insulating layer so that radiation of the heat stored due to IR absorption by the layer 2b contributing to IR absorption can be shielded by the heat-insulating layer 2a, and thus a temperature rise due to radiant heat from the panel body 52a can be prevented.



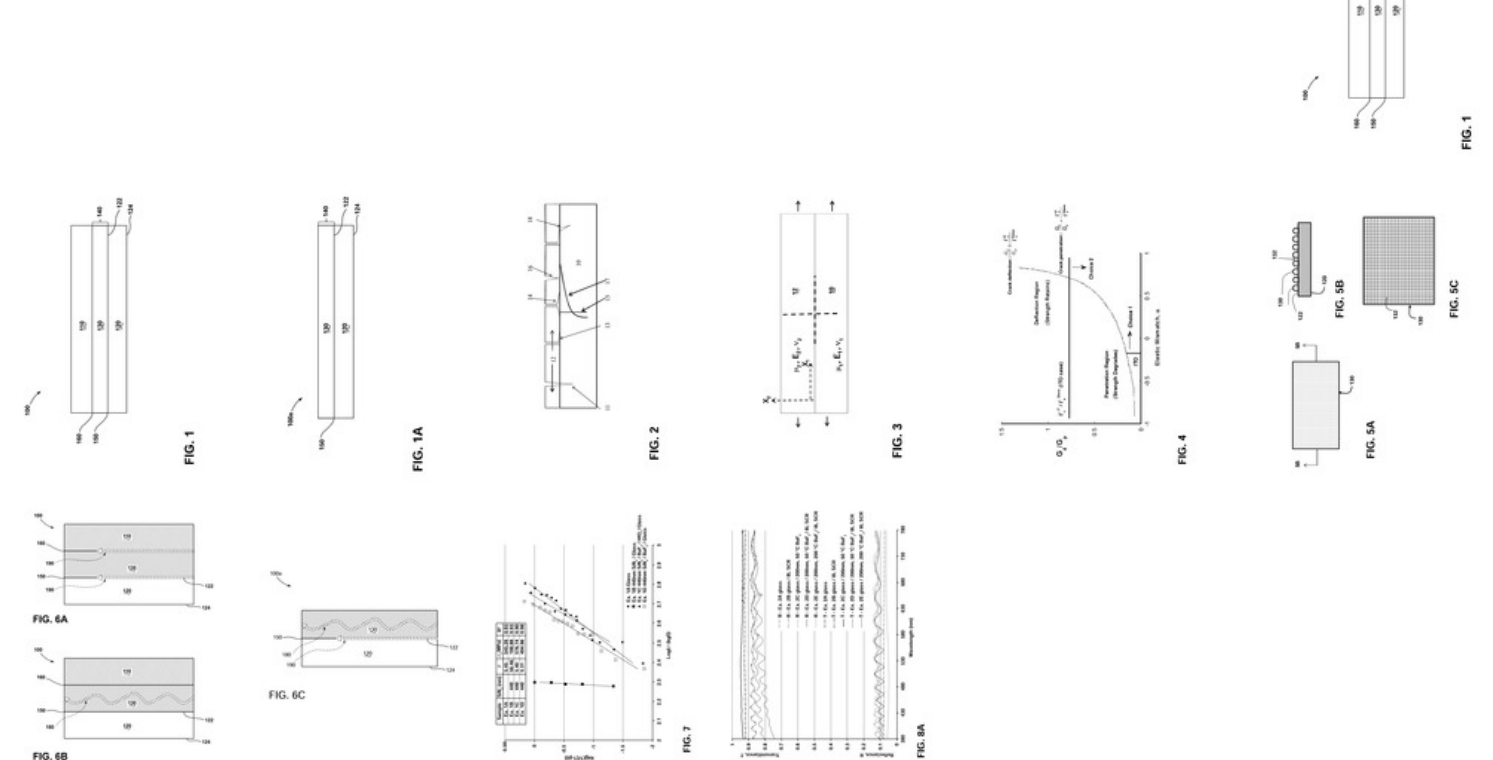
Electro-optic elements are becoming commonplace in a number of vehicular and architectural applications. Various electro-optic element configurations provide variable transmittance and/or variable reflectance for windows and mirrors. The present invention relates to various thin-film coatings, electro-optic elements and assemblies incorporating these elements.



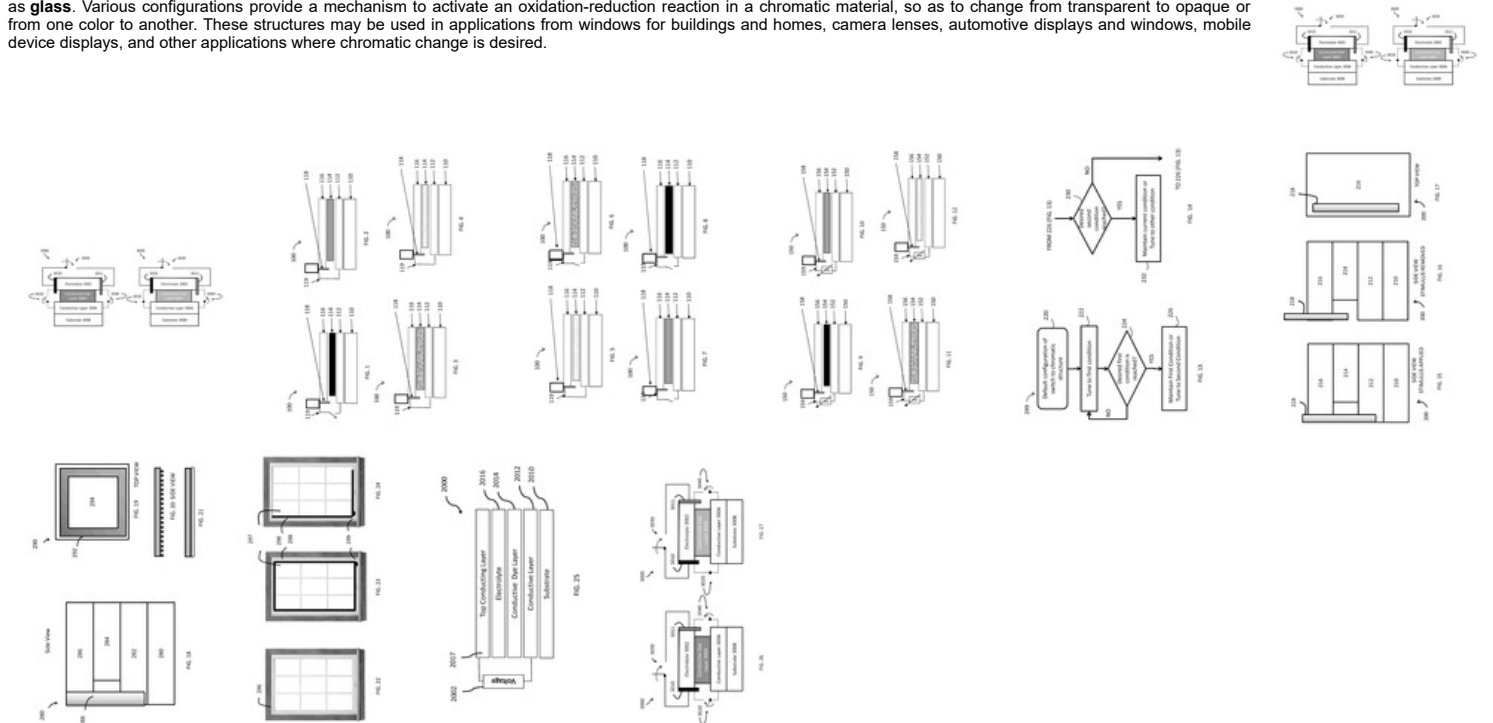
An article that includes: a **glass-based** substrate having opposing major surfaces; a crack mitigating stack disposed on one of the major surfaces; and a scratch-resistant film disposed on the crack mitigating stack that has an elastic modulus greater than or equal to the elastic modulus of the substrate. The stack comprises one or more bi-layers defined by: (a) a first layer comprising an organosilicate material, and (b) a second layer comprising an organosilicate material over the first layer, the first layer having a lower elastic modulus than the elastic modulus of the second layer. The film comprises at least one of a metal-containing oxide, a metal-containing oxynitride, a metal-containing nitride, a metal-containing carbide, a silicon-containing polymer, a carbon, a semiconductor, and combinations thereof. In addition, the article is characterized by an average flexural strength that is at least 70% of an average flexural strength of the substrate.



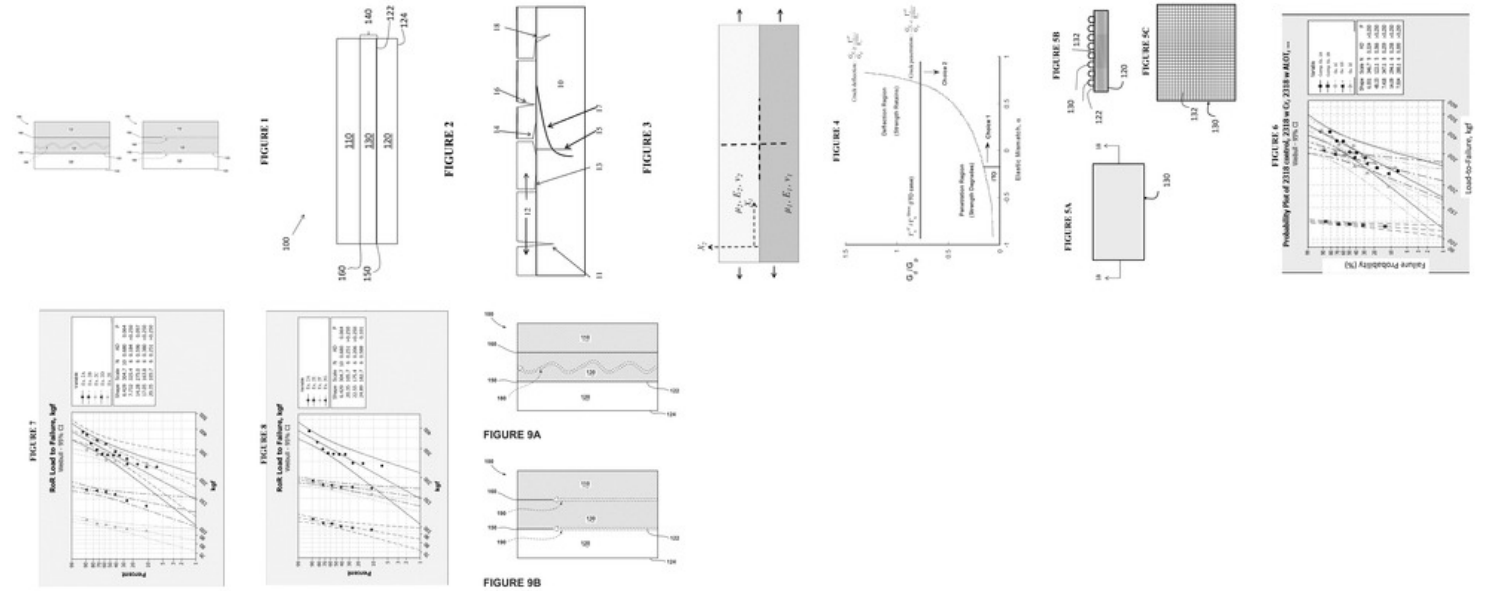
One or more aspects relate to an article that includes a **glass** substrate having a first average strain-to-failure; and a crack mitigating layer disposed on a first major surface of the substrate forming a first interface. The article also includes a film disposed on the crack mitigating layer forming a second interface and having a second average strain-to-failure that is less than the first average strain-to-failure. Further, at least one of the first and second interfaces exhibits a moderate adhesion such that at least a portion of the crack mitigating layer experiences one or more of a cohesive failure and an adhesive failure at the interfaces when the article is strained to a strain level between the first average strain-to-failure and the second average strain-to-failure. In addition, the refractive index of the crack mitigating layer is between or the same as the refractive indices of the substrate and the film.



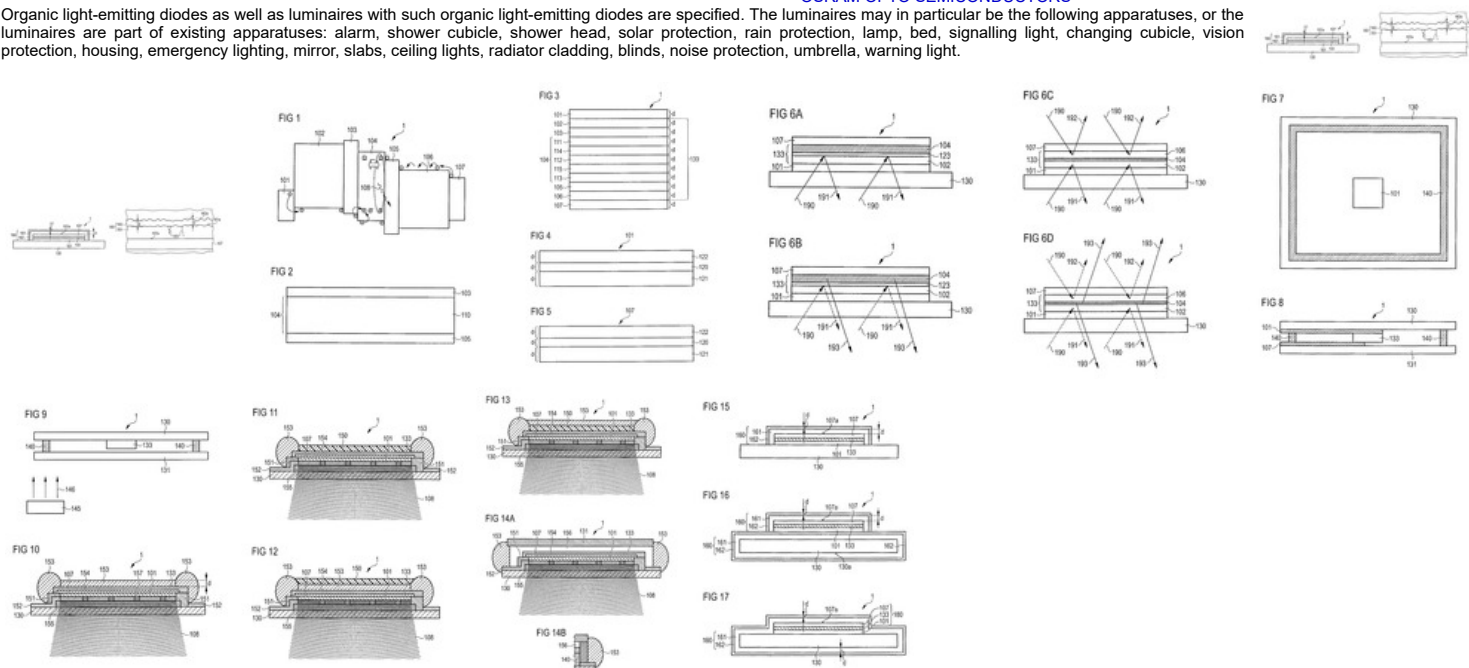
Chromatic systems and structures are presented that operate without external electrical supply, which enable changes in color or transparency of a substrate material, such as **glass**. Various configurations provide a mechanism to activate an oxidation-reduction reaction in a chromatic material, so as to change from transparent to opaque or from one color to another. These structures may be used in applications from windows for buildings and homes, camera lenses, automotive displays and windows, mobile device displays, and other applications where chromatic change is desired.



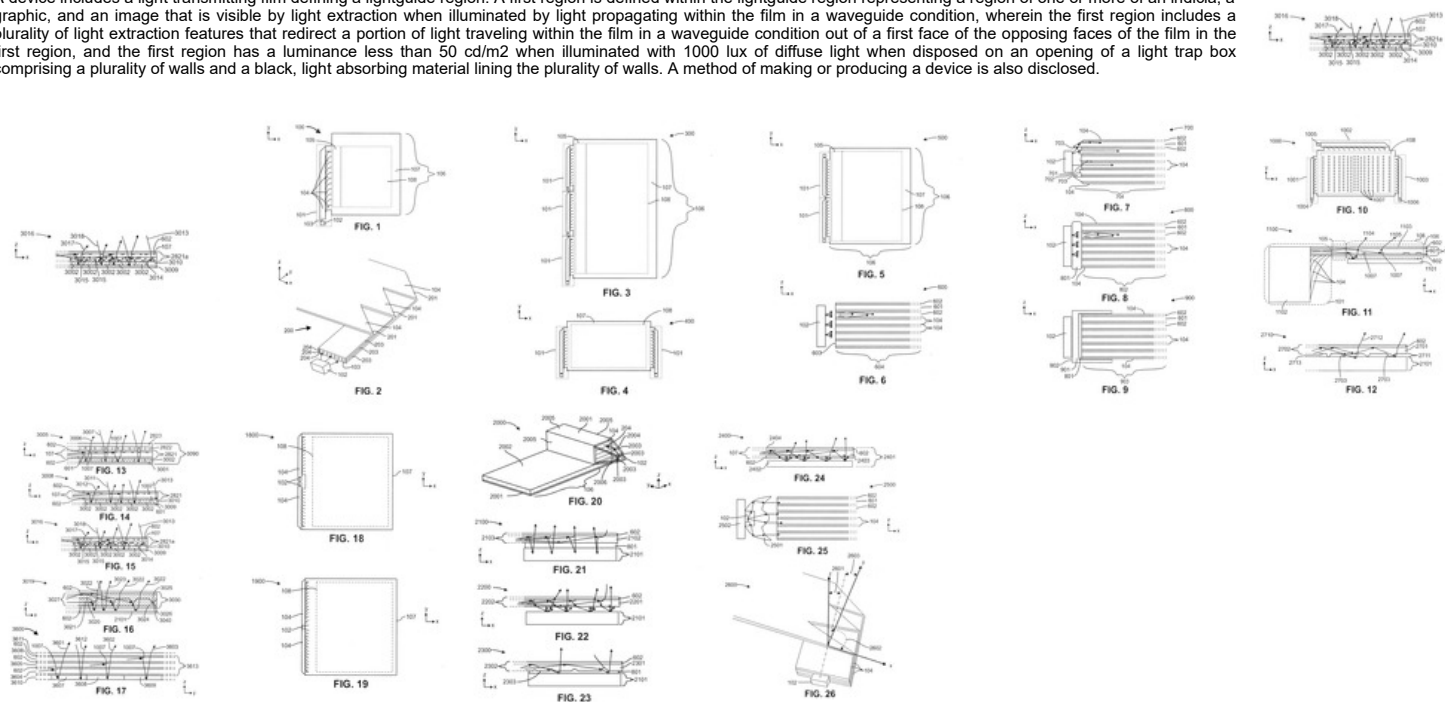
One or more aspects of the disclosure pertain to an article including a film disposed on a **glass** substrate, which may be strengthened, where the interface between the film and the **glass** substrate is modified, such that the article has an improved average flexural strength, and the film retains key functional properties for its application. Some key functional properties of the film include optical, electrical and/or mechanical properties. In one or more embodiments, the interface exhibits an effective adhesion energy of about less than about 4 J/m². In some embodiments, the interface is modified by the inclusion of a crack mitigating layer containing an inorganic material between the **glass** substrate and the film.



Organic light-emitting diodes as well as luminaires with such organic light-emitting diodes are specified. The luminaires may in particular be the following apparatuses, or the luminaires are part of existing apparatuses: alarm, shower cubicle, shower head, solar protection, rain protection, lamp, bed, signalling light, changing cubicle, vision protection, housing, emergency lighting, mirror, slabs, ceiling lights, radiator cladding, blinds, noise protection, umbrella, warning light.



A device includes a light transmitting film defining a lightguide region. A first region is defined within the lightguide region representing a region of one or more of an indicia, a graphic, and an image that is visible by light extraction when illuminated by light propagating within the film in a waveguide condition, wherein the first region includes a plurality of light extraction features that redirect a portion of light traveling within the film in a waveguide condition out of a first face of the opposing faces of the film in the first region, and the first region has a luminance less than 50 cd/m² when illuminated with 1000 lux of diffuse light when disposed on an opening of a light trap box comprising a plurality of walls and a black, light absorbing material lining the plurality of walls. A method of making or producing a device is also disclosed.



44.

Vehicle and a window visor assembly for the vehicle

CN104002645

2013-02-22

GM GLOBAL TECHNOLOGY OPERATIONS*

2014-08-27

2014-08-27

A vehicle and a window visor assembly for the vehicle are disclosed. The window visor assembly includes a visor adapted to be coupled to the vehicle. The visor is rotatable between a retracted position and an extended position. The visor includes a first state changing layer and a second state changing layer spaced from each other. The first state changing layer is in a first mode when the first state changing layer is energized to thereby change the visibility through the visor. The second state changing layer is in a second mode when the second state changing layer is energized to thereby change the visibility through the visor differently from the first state changing layer when energized.

45.

System and apparatus for making, mounting and using externally-mounted digital displays on moving objects

WO2017180900

2017-04-13

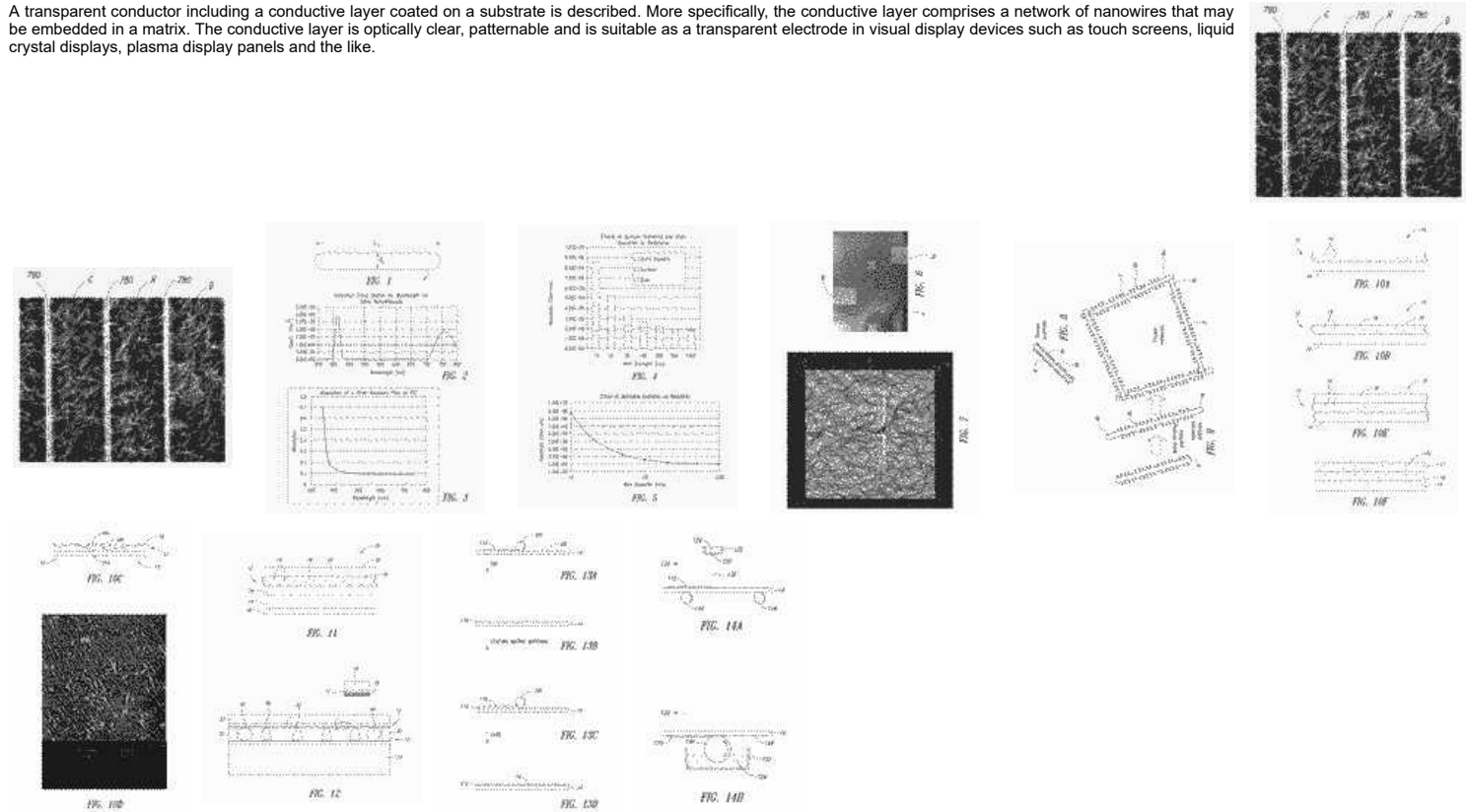
BCAT*

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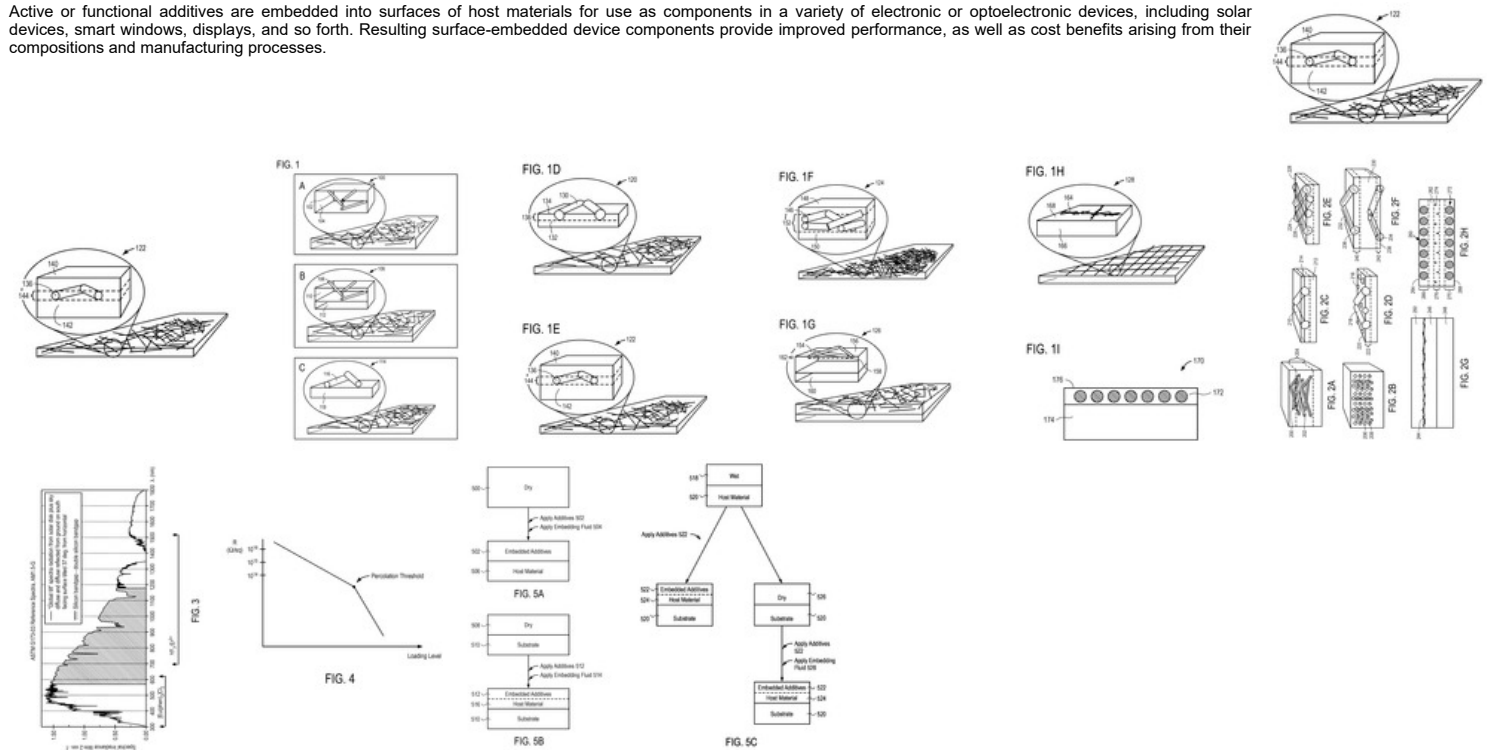
2017-10-19

A hyper relevant digital surface (HDS) may be designed, fitted, formed and attached to conform closely to a target vehicle's body surfaces. Certain embodiments may use Thin Film Transistor (TFT) flexible (or rigid) display products to enhance or disguise their presence by displaying imagery to visually or aesthetically replicate in real-time the original vehicle's surface or to alter or morph any vehicle body surfaces (shape, color, lighting, reflections, details, features or components, etc.) underneath. Embodiments designed to utilize license plate recess for integration, mechanical and electrical connection, temperature control, and display of license plate information are disclosed.

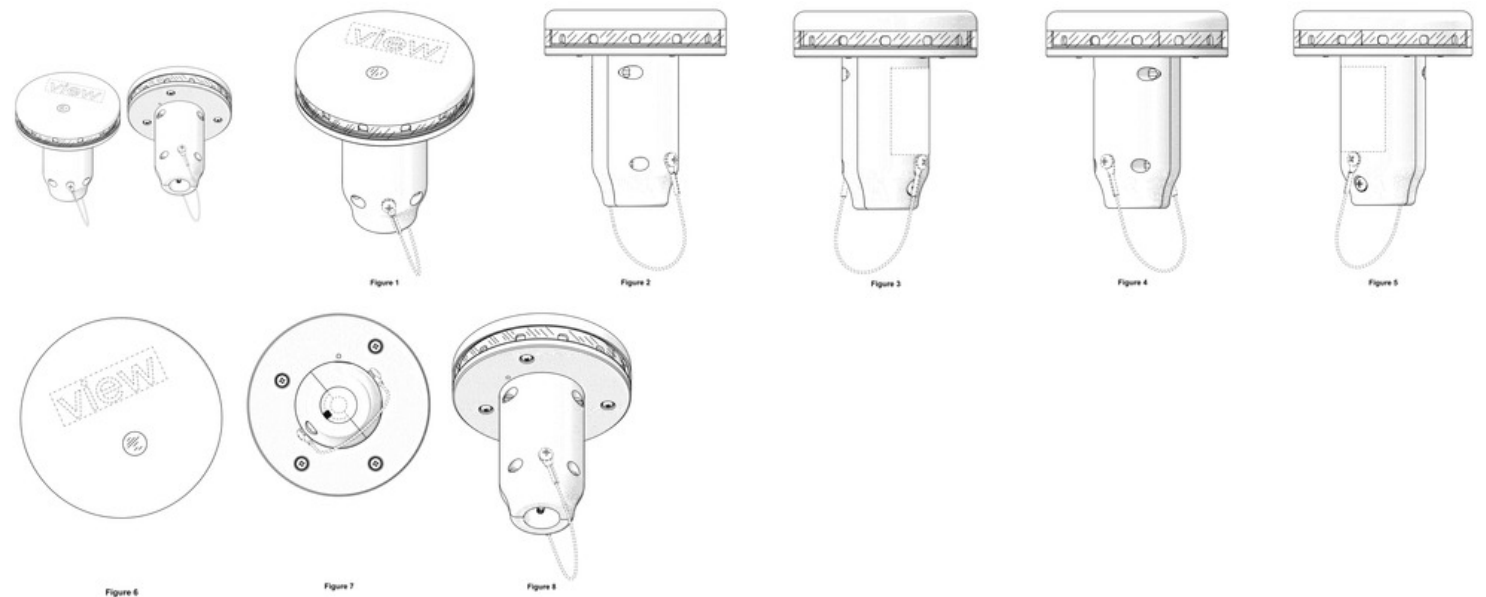
A transparent conductor including a conductive layer coated on a substrate is described. More specifically, the conductive layer comprises a network of nanowires that may be embedded in a matrix. The conductive layer is optically clear, patternable and is suitable as a transparent electrode in visual display devices such as touch screens, liquid crystal displays, plasma display panels and the like.



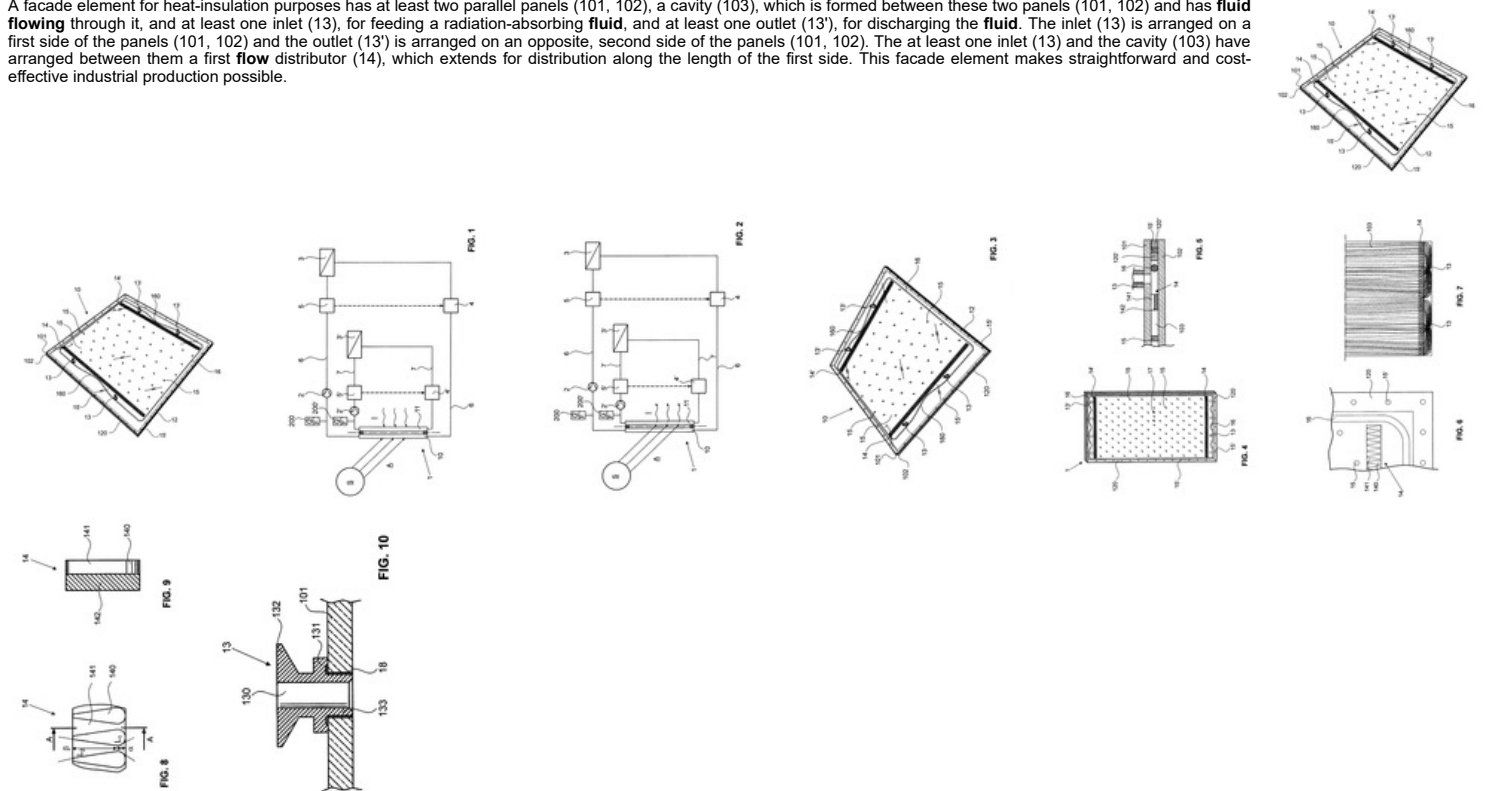
Active or functional additives are embedded into surfaces of host materials for use as components in a variety of electronic or optoelectronic devices, including solar devices, smart windows, displays, and so forth. Resulting surface-embedded device components provide improved performance, as well as cost benefits arising from their compositions and manufacturing processes.



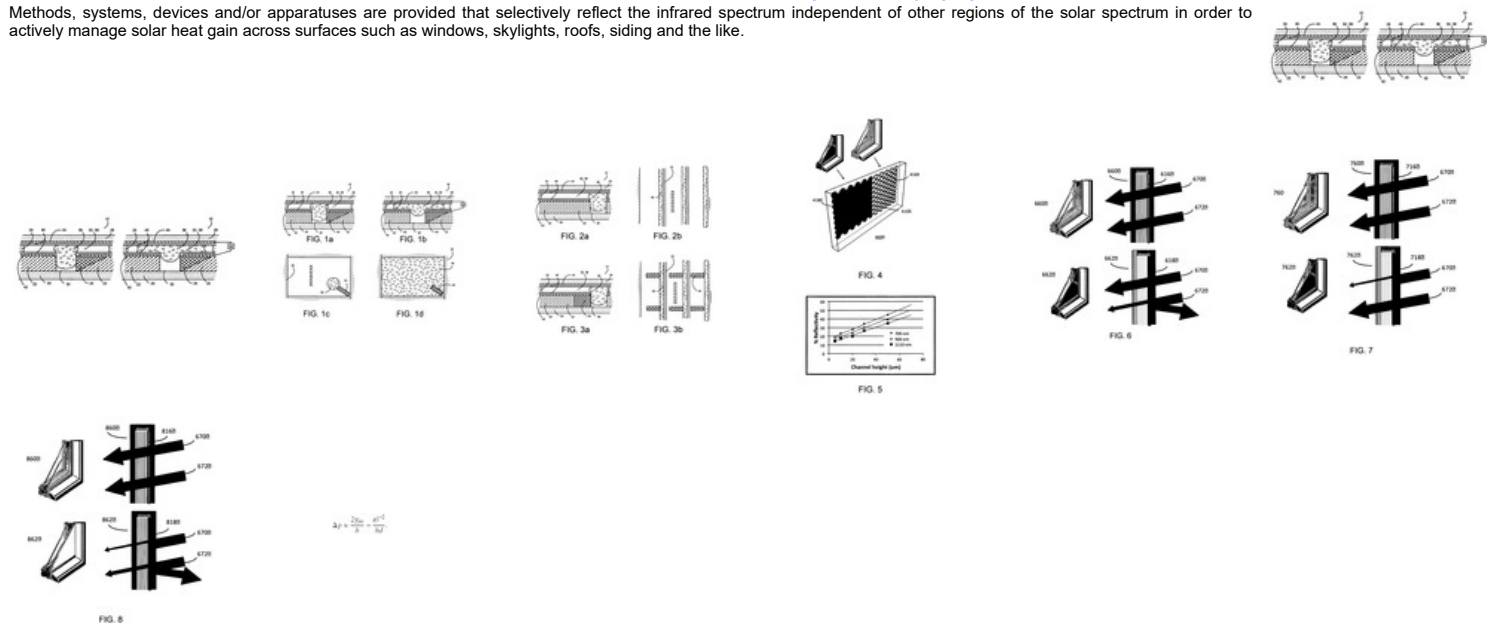
Various implementations relate generally to a multi-sensor device. Some implementations more particularly relate to a multi-sensor device including a ring of radially-oriented photosensors. Some implementations more particularly relate to a multi-sensor device that is orientation-independent with respect to a central axis of the ring. Some implementations of the multi-sensor devices described herein also include one or more additional sensors. For example, some implementations include an axially-directed photosensor. Some implementations also can include one or more temperature sensors configured to sense an exterior temperature, for example, an ambient temperature of an outdoors environment around the multi-sensor. Additionally or alternatively, some implementations can include a temperature sensor configured to sense an interior temperature within the multi-sensor device. Particular implementations provide, characterize, or enable a compact form factor. Particular implementations provide, characterize, or enable a multi-sensor device requiring little or no wiring, and in some such instances, little or no invasion, perforation or reconstruction of a building or other structure on which the multi-sensor device is mounted.



A facade element for heat-insulation purposes has at least two parallel panels (101, 102), a cavity (103), which is formed between these two panels (101, 102) and has **fluid flowing** through it, and at least one inlet (13), for feeding a radiation-absorbing **fluid**, and at least one outlet (13'), for discharging the **fluid**. The inlet (13) is arranged on a first side of the panels (101, 102) and the outlet (13') is arranged on an opposite, second side of the panels (101, 102). The at least one inlet (13) and the cavity (103) have arranged between them a first **flow** distributor (14), which extends for distribution along the length of the first side. This facade element makes straightforward and cost-effective industrial production possible.



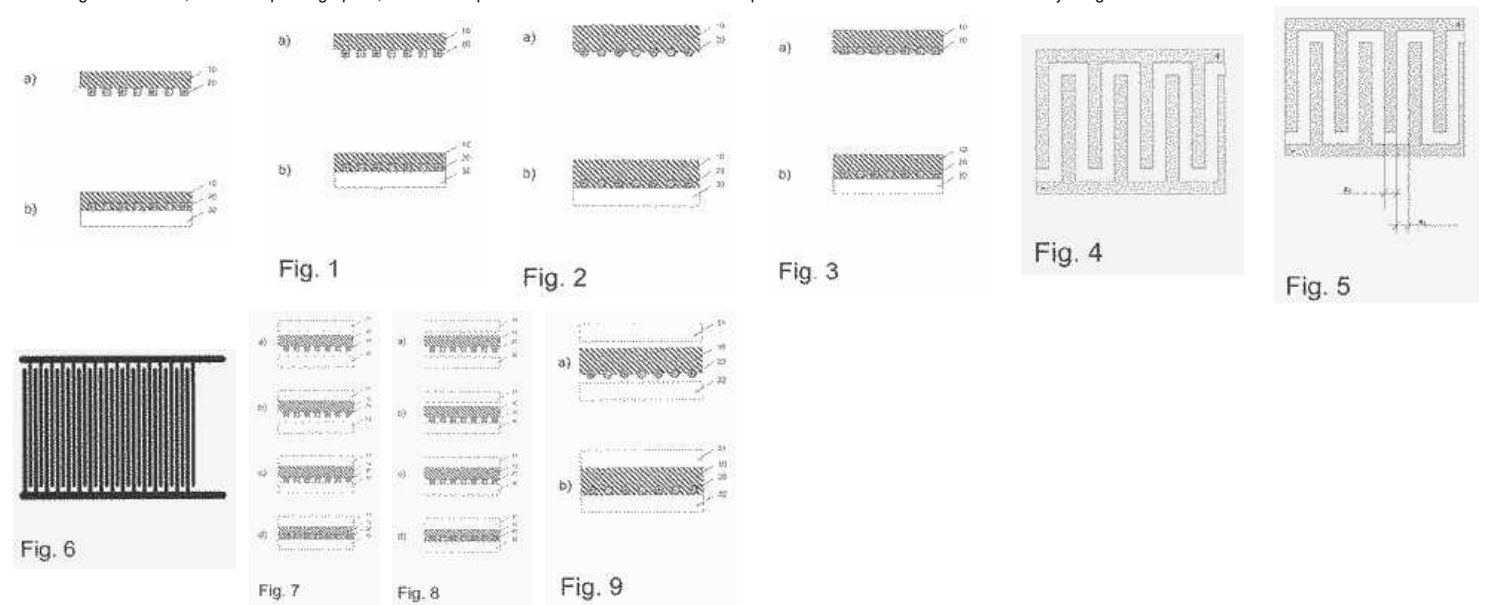
Methods, systems, devices and/or apparatuses are provided that selectively reflect the infrared spectrum independent of other regions of the solar spectrum in order to actively manage solar heat gain across surfaces such as windows, skylights, roofs, siding and the like.



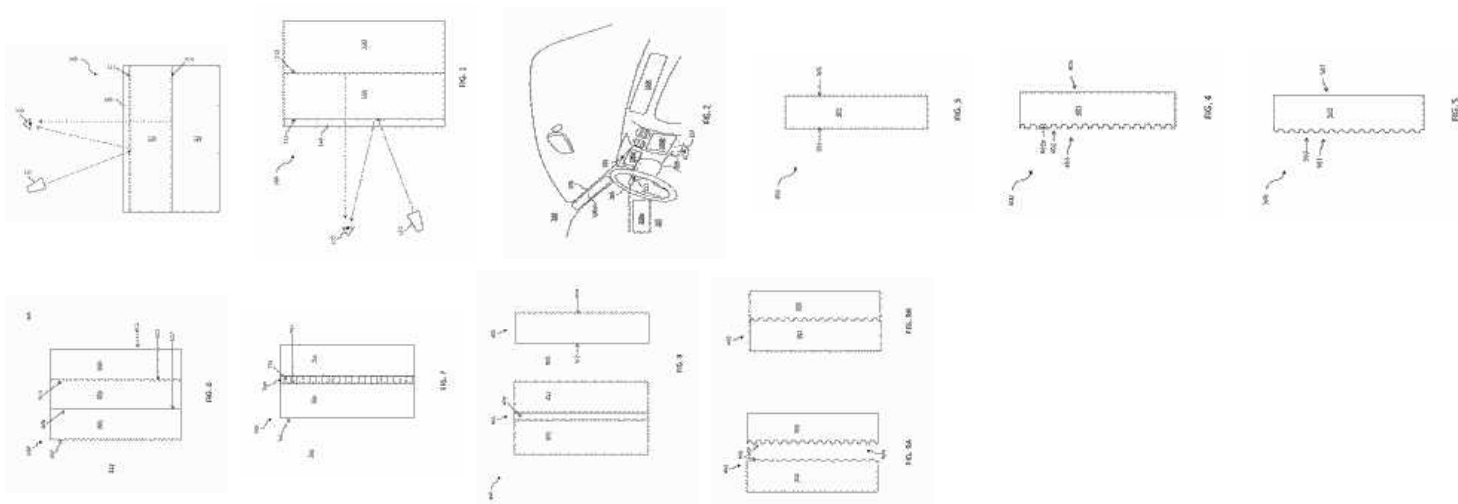
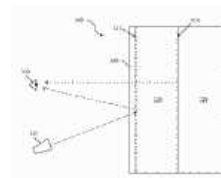
The present invention aims at providing a kind of field operation air conditioning costume for army man to wear in all weather and all the year around. The costume can protect soldier against harsh environmental conditions and raise the field survival capacity and life quality for optimal operating state. Its air conditioning system has miniature water pump to pump out water from the water bag waistband and to make water **flow** over the whole body through electrical color changing plastic pipes. The water after being cooled or heated in "heat insulating refrigerator" **flows** back to the water bag. Water temperature may be regulated by the user at will. In addition, the present invention makes it possible for the soldier evade against enemy heat imager reconnaissance.



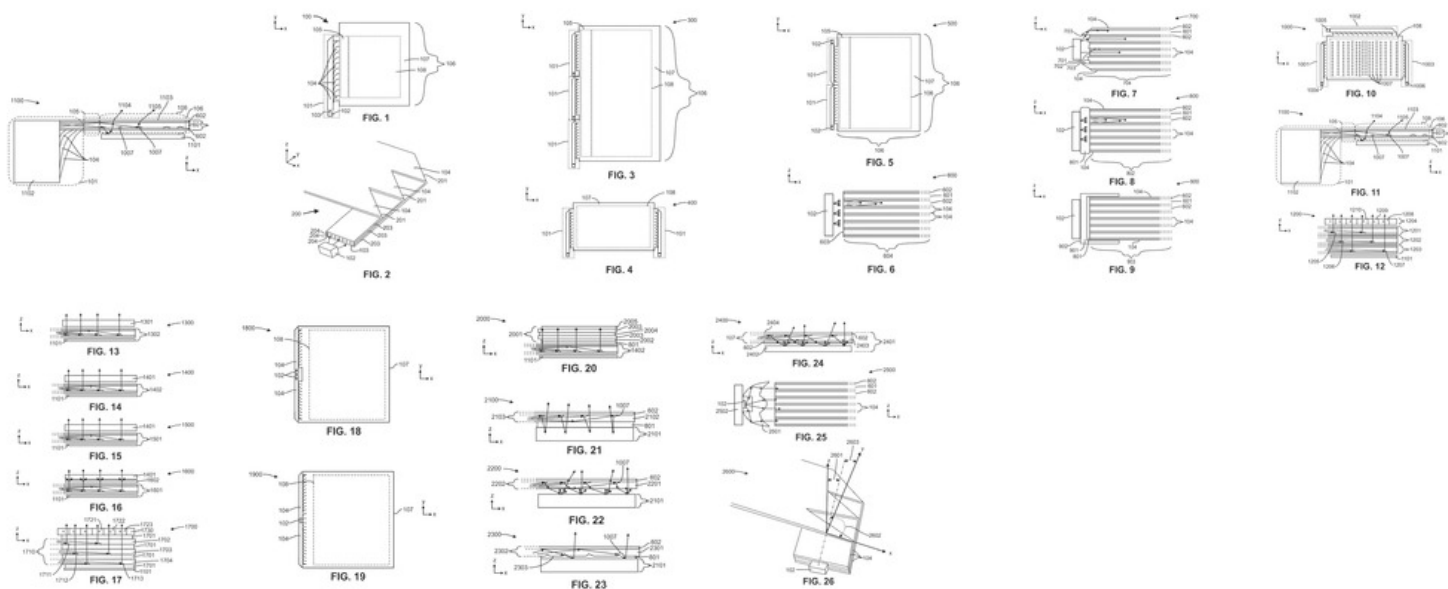
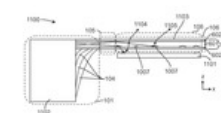
The flat element comprises a front side and a rear side, which has a heating layer and a contacting layer, where the heating layer consists of an intrinsically heatable self-adhesive mass (10), which is formed as a conductor heating itself during passing an electric current. The contacting layer is formed as a contacting element (20) expanded in a flat-shaped manner and broken by notches and has a first side surface and a second side surface. The contacting layer contacts with the heating layer over the first side surface and is electrically conductively connected with the heating layer. The flat element comprises a front side and a rear side, which has a heating layer and a contacting layer, where the heating layer consists of an intrinsically heatable self-adhesive mass (10), which is formed as a conductor heating itself during passing an electric current. The contacting layer is formed as a contacting element (20) expanded in a flat-shaped manner and broken by notches and has a first side surface and a second side surface. The contacting layer contacts with the heating layer over the first side surface and is electrically conductively connected with the heating layer. The second side surface of the contacting layer forms the front side of the flat element. The notches are continuously formed in the contacting element over the thickness of the contacting element and are present in the area of the second side surface in an adhesive-free manner. The intrinsically heatable self-adhesive mass is a positive temperature coefficient (PTC) thermistor. The first side surface of the contacting layer is partially embedded into the intrinsically heatable self-adhesive mass, and lies on a side surface of the intrinsically heatable self-adhesive mass in a flat manner. The thickness of the contacting element is less than 20 mu m. The notches form more than 50% of the surface of the first side surface of the contacting layer or more than 75% of the first side surface of the contacting layer. The broken contacting element has web-shaped areas, which have a width of highly 5 mm or less than 1 mm and are present in a branched comb structure or finger structure. The intrinsically heatable self-adhesive mass comprises an electrically conducting filler material, which comprises graphite, carbon nanoparticles and conductive soot. An independent claim is included for a method for joining a flat element with an adhesion substrate.

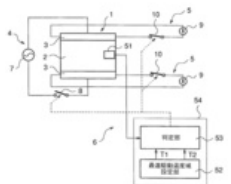


A material system for a surface display unit that includes a first side (i.e., a proximal side) that faces a viewer of the surface display unit and a second side (i.e., a distal side) facing away from the viewer. The material system provides at least three appearance states, including a generally opaque first appearance state when the surface display unit is "off" (i.e., not used to display images), a second appearance state in which the material system is illuminated from the first (i.e., proximal) side to display a first image (e.g., information and/or decoration) that is perceptible to the viewer, and a third appearance state in which the material system is illuminated from the second (i.e., distal) side to display a second image (e.g., information and/or decoration) that is perceptible to the viewer. Surface display units, systems, and methods comprising the material system are also disclosed.



A light emitting device includes a film-based lightguide and coupling lightguides having ends stacked and aligned. In one embodiment, the light emitting device comprises a relative position maintaining element that extends beyond the light input surface defined by the stacked ends of an array of coupling lightguides. In another embodiment, a light emitting device comprises an alignment guide or cavity.





57.

Building system for cascading flows of matter and energy

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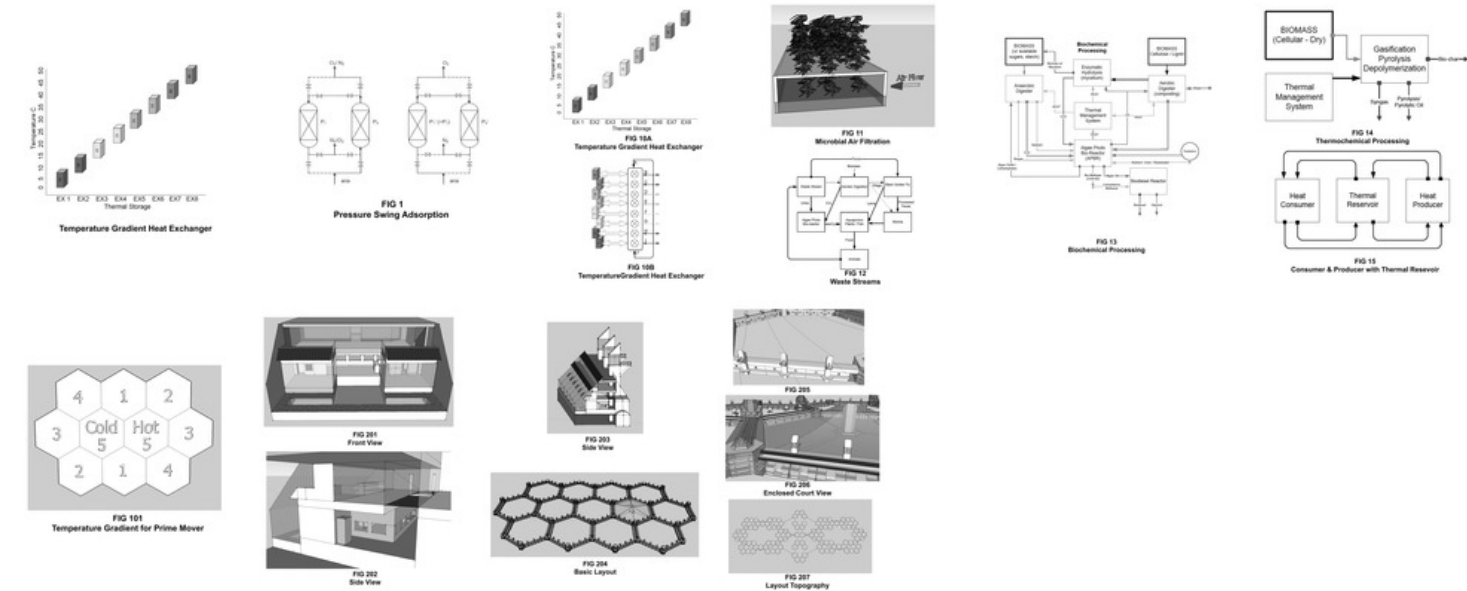
2013-08-22

KEVIN HANS MELSHEIMER;Kevin Hans Myersheimer;MELSHEIMER KEVIN

2015-02-26

2015-02-26

It is possible within a bounded system, through manipulation of the built environment using novel combinations of technology, overall system design, and process cycle management, to moderate increases in system entropy for both energy and matter with a structurally coupled external environment. One example embodiment forms an engineered ecosystem, moderating eight primary systems - thermal management, atmospheric optimization, radiation controls, hydrological systems, energy systems, material flows, systems management, and built systems - to provide homeostatic regulation of cascading flows of matter and energy. Ideally the system's symbiotic processes work through reciprocity and devolved autonomy to form the unity of the system that balances resource use, reduces transport requirements, shortens cycles of water, minerals, and residual flows, and offers storage of surplus and reserves. This system enables a stable passive design where in consideration of bounded inputs and outputs, the outputs never exceed inputs.



58.

Illumination via flexible thin films

WO2010085787

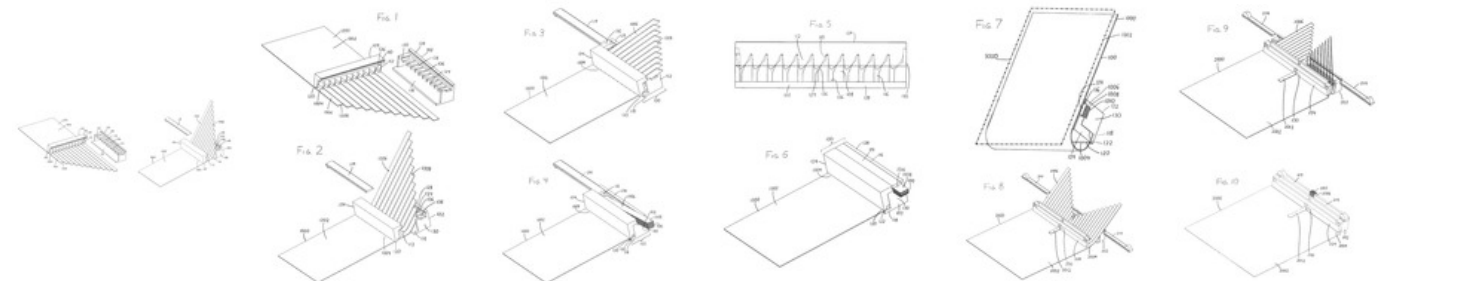
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FLEX LIGHTING FLEX LIGHTING II*

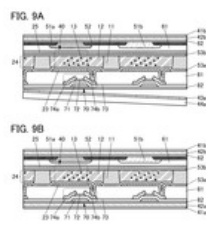
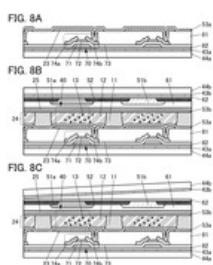
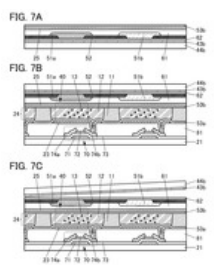
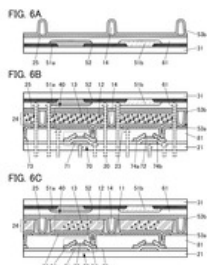
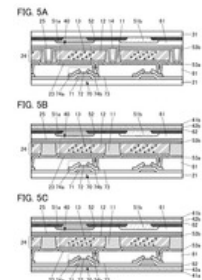
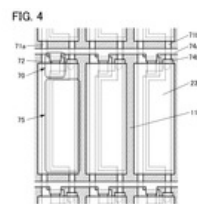
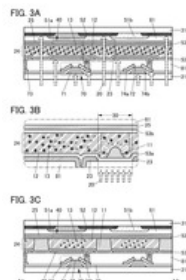
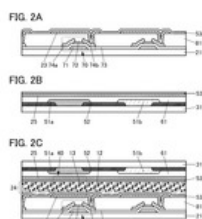
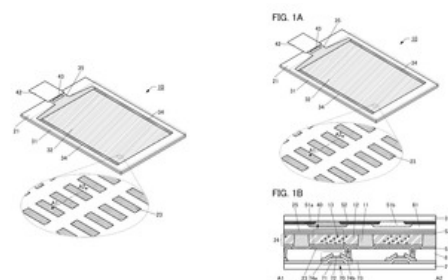
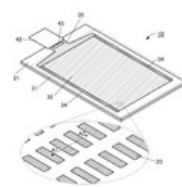
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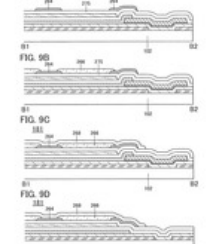
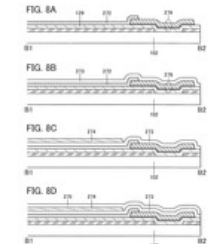
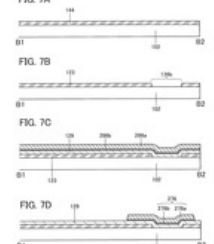
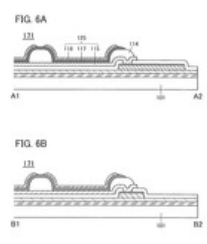
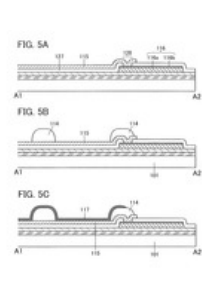
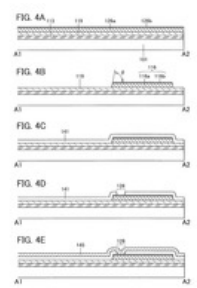
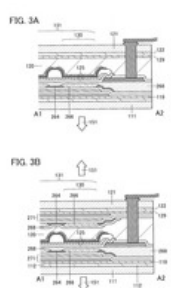
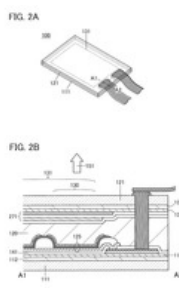
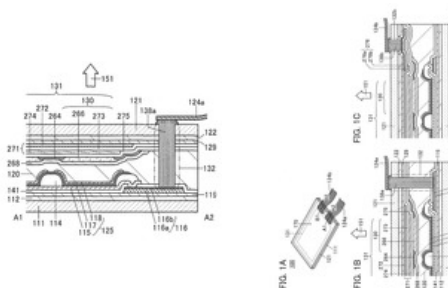
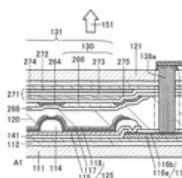
A film sheet having a series of strips extending from an edge may have the film strips gathered and folded into a stacked array wherein the strips are in parallel abutment. The collected ends of the stacked strips are then suitable for receiving light for transmission into (and emission from) the body of the film sheet. A pair of frame members, when urged toward each other about the strips, may automatically collect and fold the strips into a parallel spaced array. This array may then be gathered by hand, or by a cover member translating adjacent the frame members, to generate the stacked array of parallel abutting strips. The resulting illumination device is particularly useful for illumination of display panels such as liquid crystal displays, organic light-emitting diode displays, or simply signs formed of paper, plastic, and / or other materials.



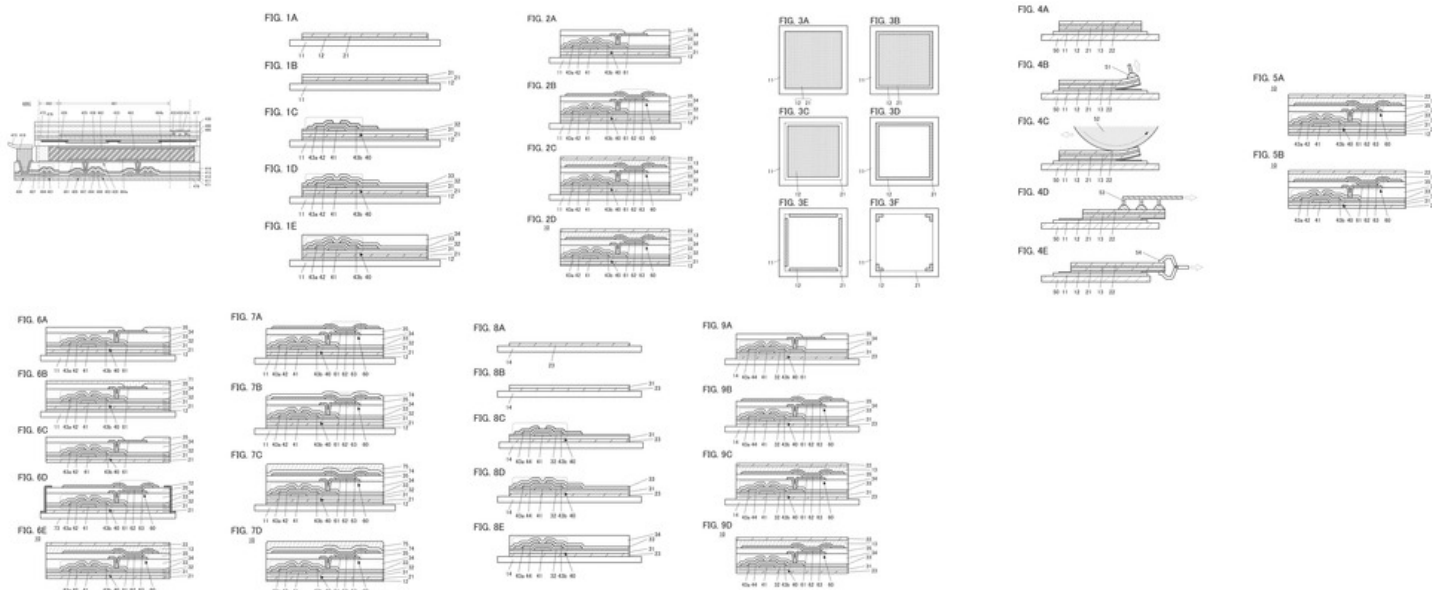
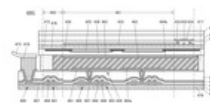
A display device includes a reflective liquid crystal element, and the liquid crystal layer includes a first portion overlapping with a reflective electrode which reflects visible light and blocks ultraviolet light and a second portion overlapping with a region between two adjacent reflective electrodes. The first portion contains monomers and liquid crystal and the second portion contains a polymer obtained by polymerization of the monomers. In the second portion, the polymer constitutes the framework of a columnar partition wall which bonds the pair of electrodes to each other. The partition wall can be formed in a self-aligned manner because the reflective electrode is used as a light-blocking mask when light is emitted.



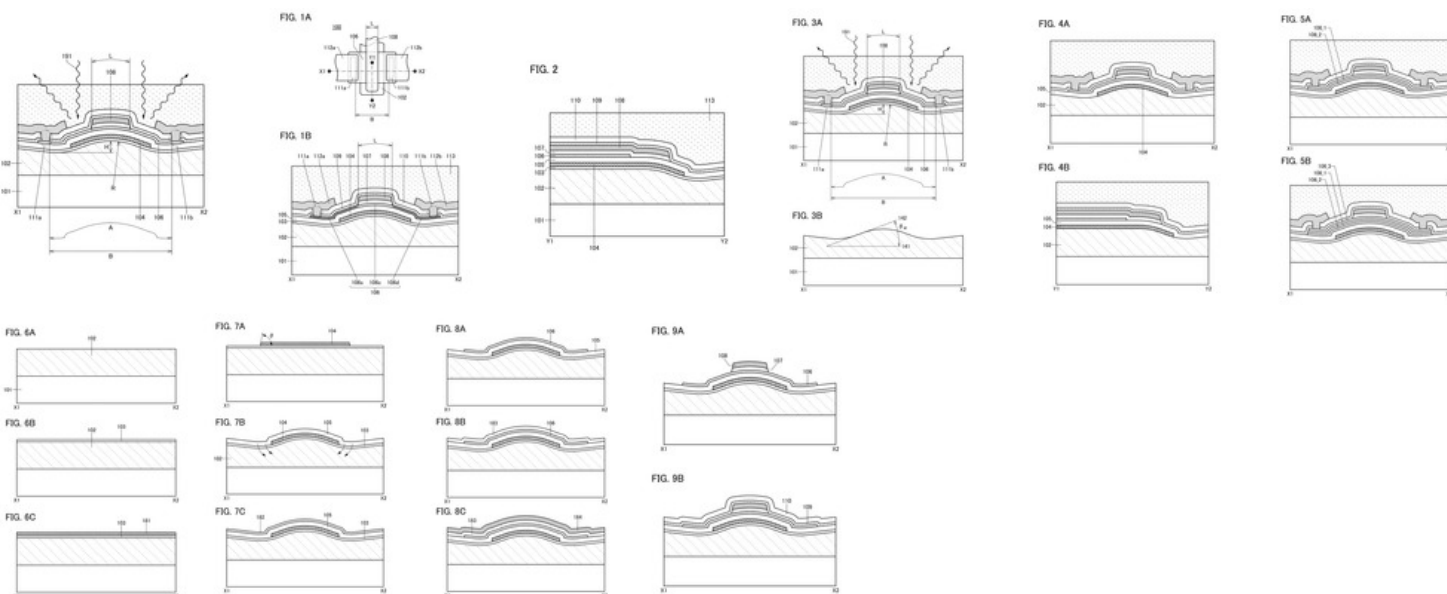
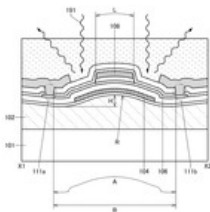
A display device with high design flexibility is provided. The display device includes a display element, a touch sensor, and a transistor between two flexible substrates. An external electrode that supplies a signal to the display element and an external electrode that supplies a signal to the touch sensor are connected from the same surface of one of the substrates.



A flexible device is manufactured at low temperatures. A second substrate is bonded to a first substrate by a first adhesive layer. A first insulating layer, a transistor, and a second insulating layer are formed over the second substrate. Then, the first substrate and the second substrate are separated from each other while being heated at a first temperature. The heat resistant temperatures of the first substrate, the second substrate, and the first adhesive layer are a second temperature, a third temperature, and a fourth temperature, respectively. Each of the first insulating layer, the second insulating layer, and the transistor is formed at a temperature higher than or equal to room temperature and lower than the fourth temperature. The third temperature is higher than the fourth temperature and lower than the second temperature. The first temperature is higher than the fourth temperature and lower than the third temperature.



A transistor with a small footprint is provided. A transistor having high reliability is provided. A transistor is provided over an insulating layer that has a projection. Over the projection, at least a **channel** formation region of a semiconductor layer is provided. This can reduce the footprint of the transistor. The transistor has a curved structure, which inhibits light that enters from the outside from reaching a **channel** formation region of the semiconductor layer. Accordingly, deterioration of the transistor due to external light can be reduced, whereby the transistor can have increased reliability. The projection can be obtained by utilizing the internal stress of the layer formed over the insulating layer. Alternatively, the projection can be obtained by placing, under the insulating layer, a structure body for providing the insulating layer with the projection.



A thin film transistor structure in which a source electrode and a drain electrode formed from a metal material are in direct contact with an oxide semiconductor film may lead to high contact resistance. One cause of high contact resistance is that a Schottky junction is formed at a contact plane between the source and drain electrodes and the oxide semiconductor film. An oxygen-deficient oxide semiconductor layer which includes crystal grains with a size of 1 nm to 10 nm and has a higher carrier concentration than the oxide semiconductor film serving as a **channel** formation region is provided between the oxide semiconductor film and the source and drain electrodes.

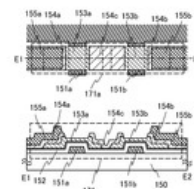
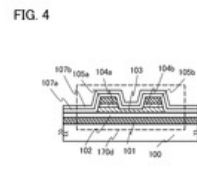
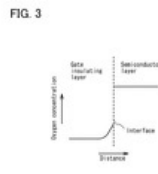
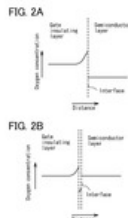
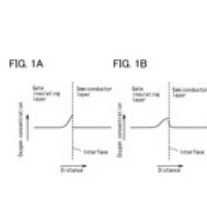
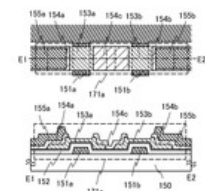
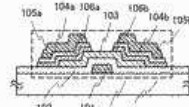
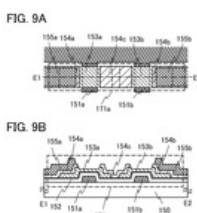
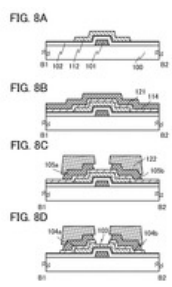
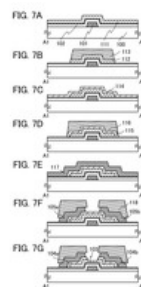
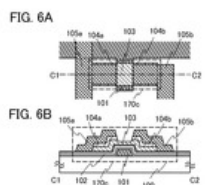
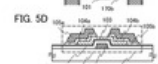
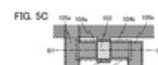
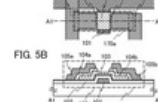


FIG. 5A



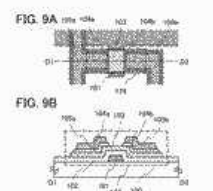
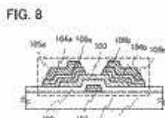
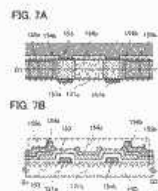
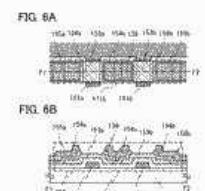
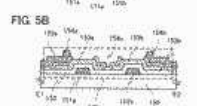
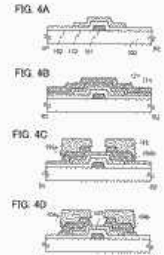
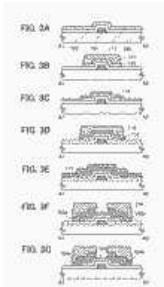
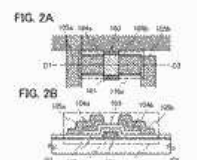
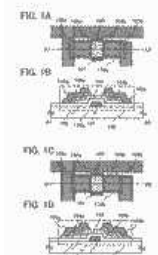
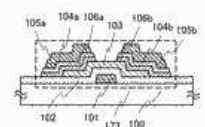
64.	Semiconductor device and method for manufacturing the same	CN101640219
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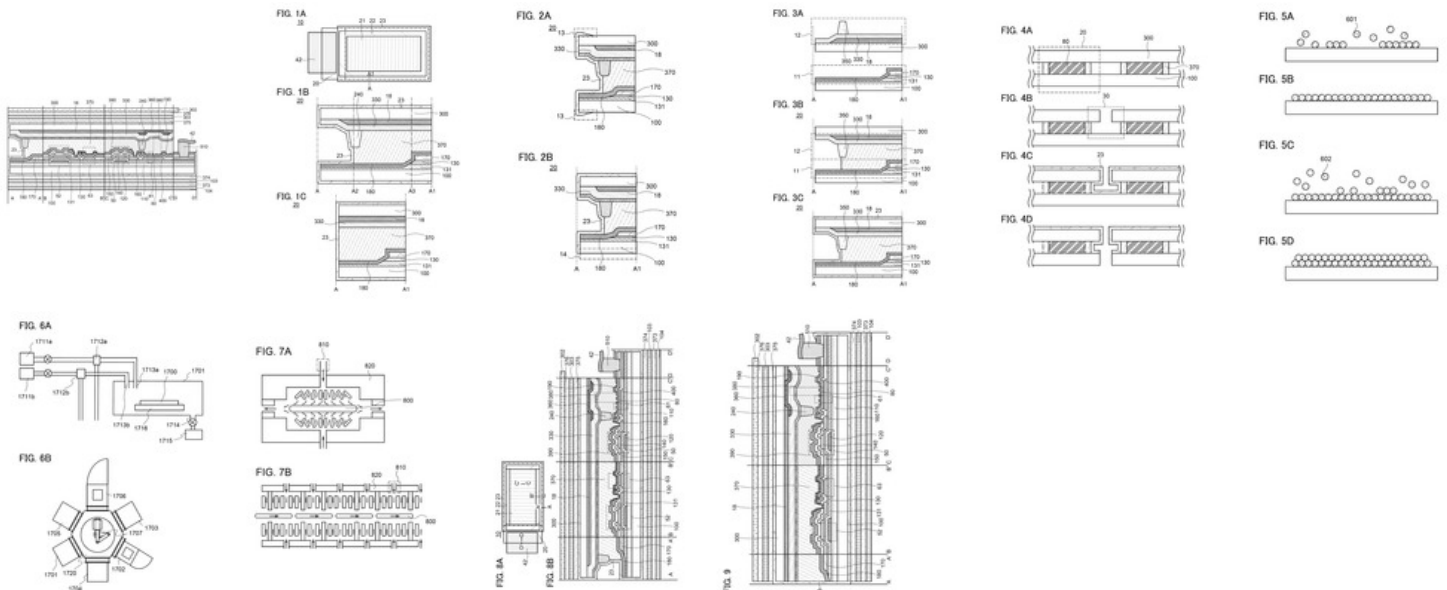
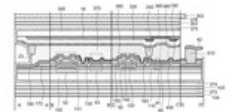
SEMICONDUCTOR ENERGY
LABORATORY*

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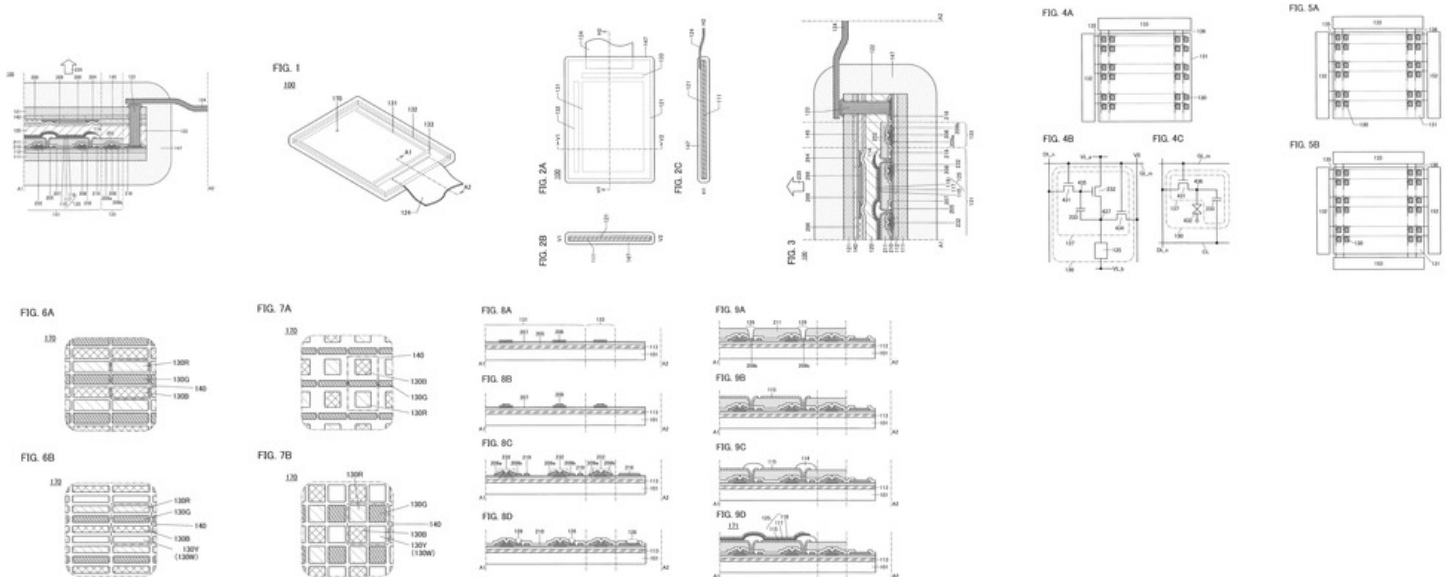
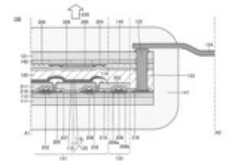
It is an object to provide a semiconductor device including a thin film transistor with favorable electric properties and high reliability, and a method for manufacturing the semiconductor device with high productivity. In an inverted staggered (bottom gate) thin film transistor, an oxide semiconductor film containing In, Ga, and Zn is used as a semiconductor layer, and a buffer layer formed using a metal oxide layer is provided between the semiconductor layer and a source and drain electrode layers. The metal oxide layer is intentionally provided as the buffer layer between the semiconductor layer and the source and drain electrode layers, whereby ohmic contact is obtained.



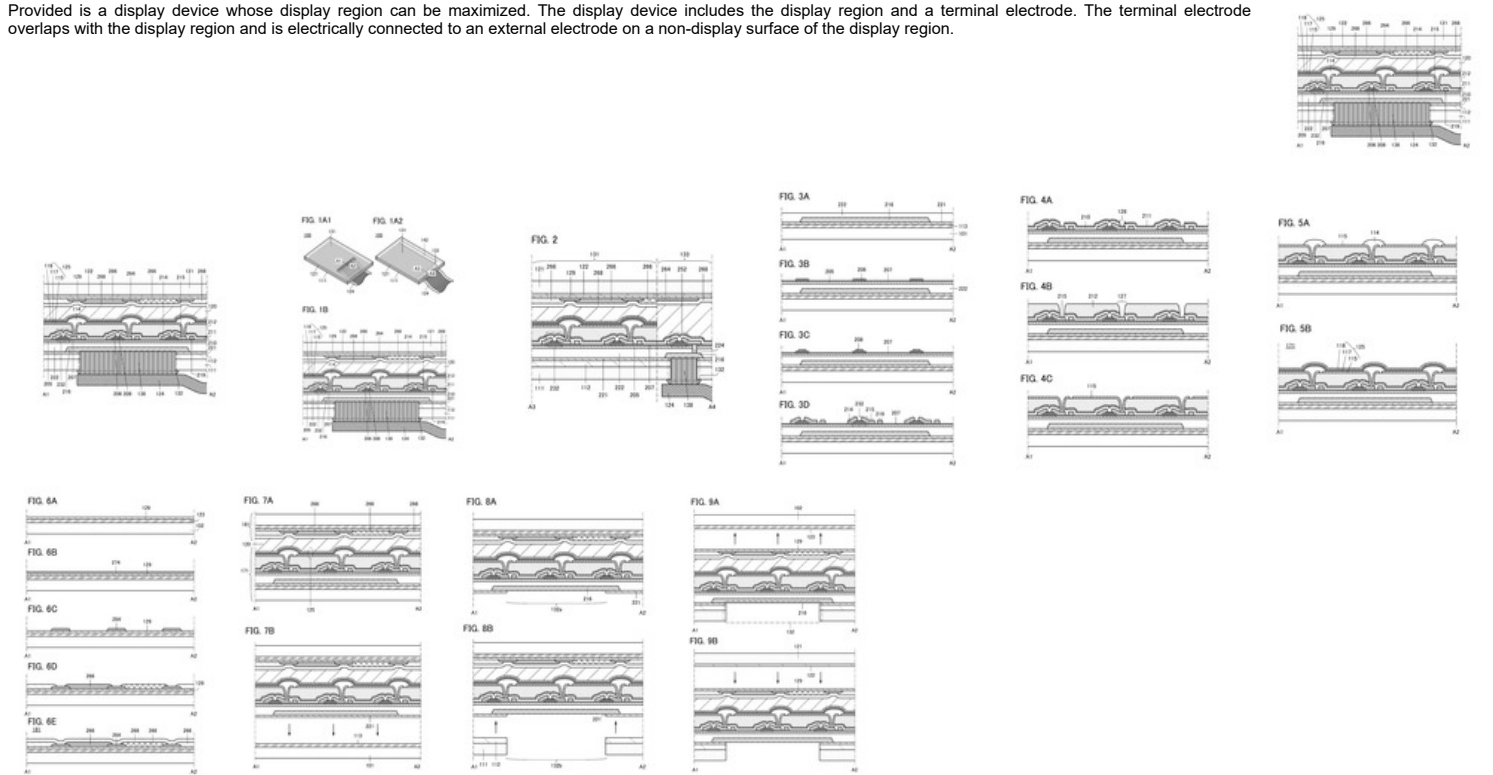
A display device in which a peripheral circuit portion has high operation stability is provided. The display device includes a first substrate and a second substrate. A first insulating layer is provided over a first surface of the first substrate. A second insulating layer is provided over a first surface of the second substrate. The first surface of the first substrate and the first surface of the second substrate face each other. An adhesive layer is provided between the first insulating layer and the second insulating layer. A protective film in contact with the first substrate, the first insulating layer, the adhesive layer, the second insulating layer, and the second substrate is formed in the vicinity of a peripheral portion of the first substrate and the second substrate.



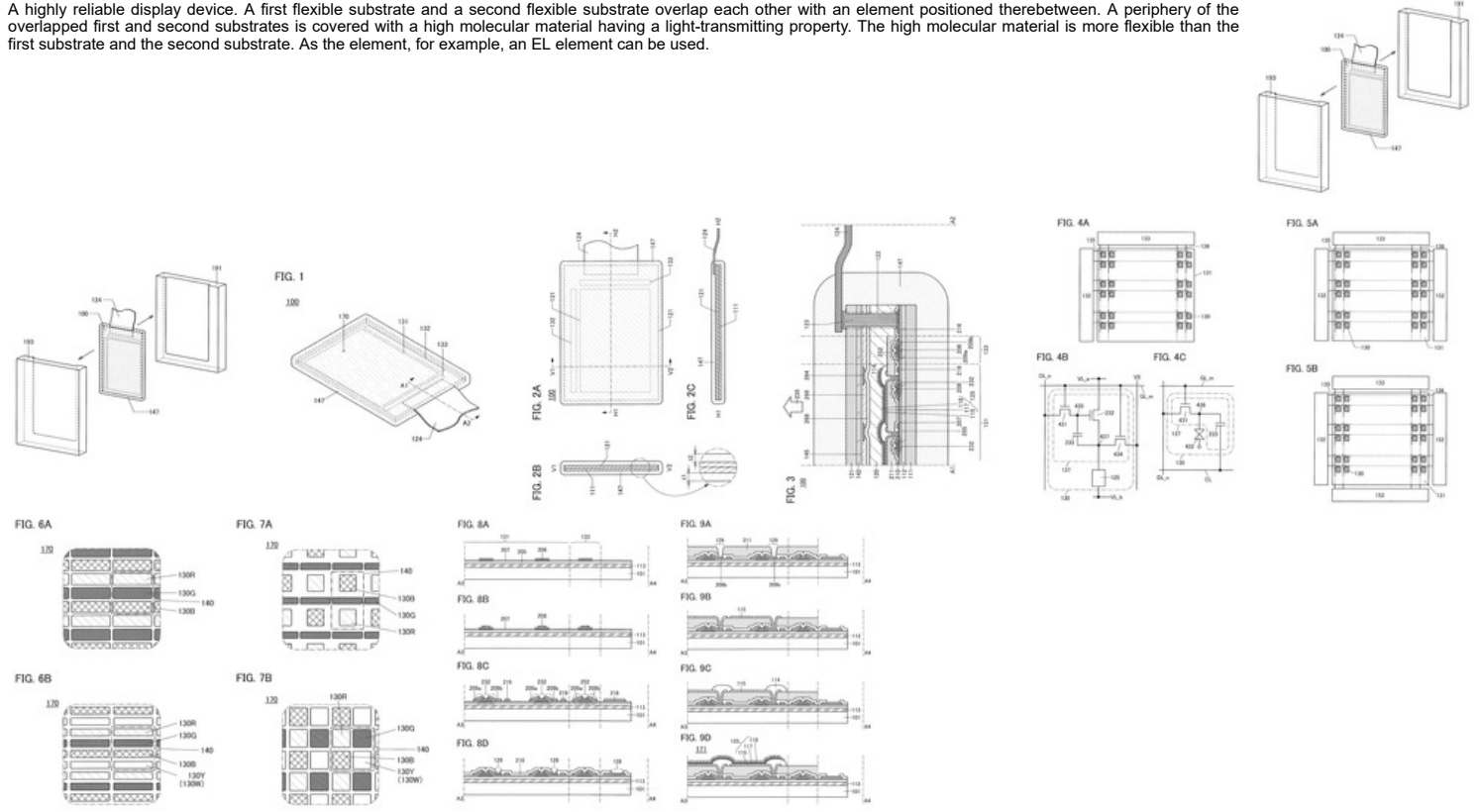
A highly reliable display device. A first flexible substrate and a second flexible substrate overlap each other with a display element positioned therebetween. Side surfaces of at least one of the first substrate and the second substrate which overlap each other are covered with a high molecular material having a light-transmitting property. The high molecular material is more flexible than the first substrate and the second substrate.



Provided is a display device whose display region can be maximized. The display device includes the display region and a terminal electrode. The terminal electrode overlaps with the display region and is electrically connected to an external electrode on a non-display surface of the display region.

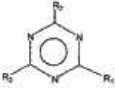


A highly reliable display device. A first flexible substrate and a second flexible substrate overlap each other with an element positioned therebetween. A periphery of the overlapped first and second substrates is covered with a high molecular material having a light-transmitting property. The high molecular material is more flexible than the first substrate and the second substrate. As the element, for example, an EL element can be used.



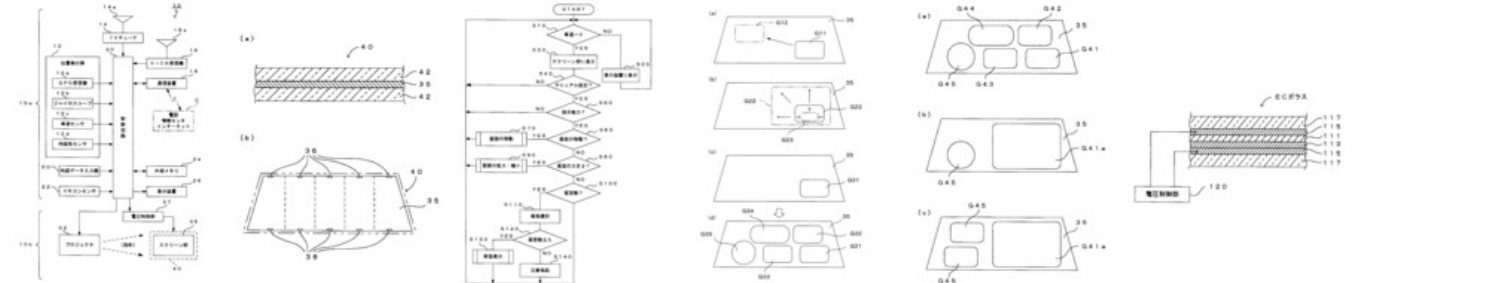
69. Polycarbonate resin composition and molded article formed of same WO2010143732 2010-06-08 TEIJIN CHEMICALS* 2010-12-16 2010-12-16

A resin composition comprising: (A) 100 parts by weight of a polycarbonate resin (component (A)); (B) 0.0001-1 part by weight of composite tungsten oxide microparticles (component (B)) represented by general formula: $MxWyOz$ [wherein M represents an element selected from among H, He, an alkali metal, an alkaline earth metal, a rare earth element, Mg, Zr, Cr, Mn, Fe, Ru, Co, Rh, Ir, Ni, Pd, Pt, Cu, Ag, Au, Zn, Cd, Al, Ga, In, Tl, Si, Ge, Sn, Pb, Sb, B, F, P, S, Se, Br, Te, Ti, Nb, V, Mo, Ta, Re, Be, Hf, Os, Bi and I; and x, y and z represent numerical values satisfying the requirements: $0.01 \leq x \leq 1$, $0.001 \leq y \leq 1$ and $2.2 \leq z \leq 3.0$]; and (C) 0.01-1 part by weight of a benzotriazine-based ultraviolet light-absorbing agent (component (C)) having a 5% weight loss temperature, as determined by TGA (thermogravimetric analyzer), of 250°C or higher.



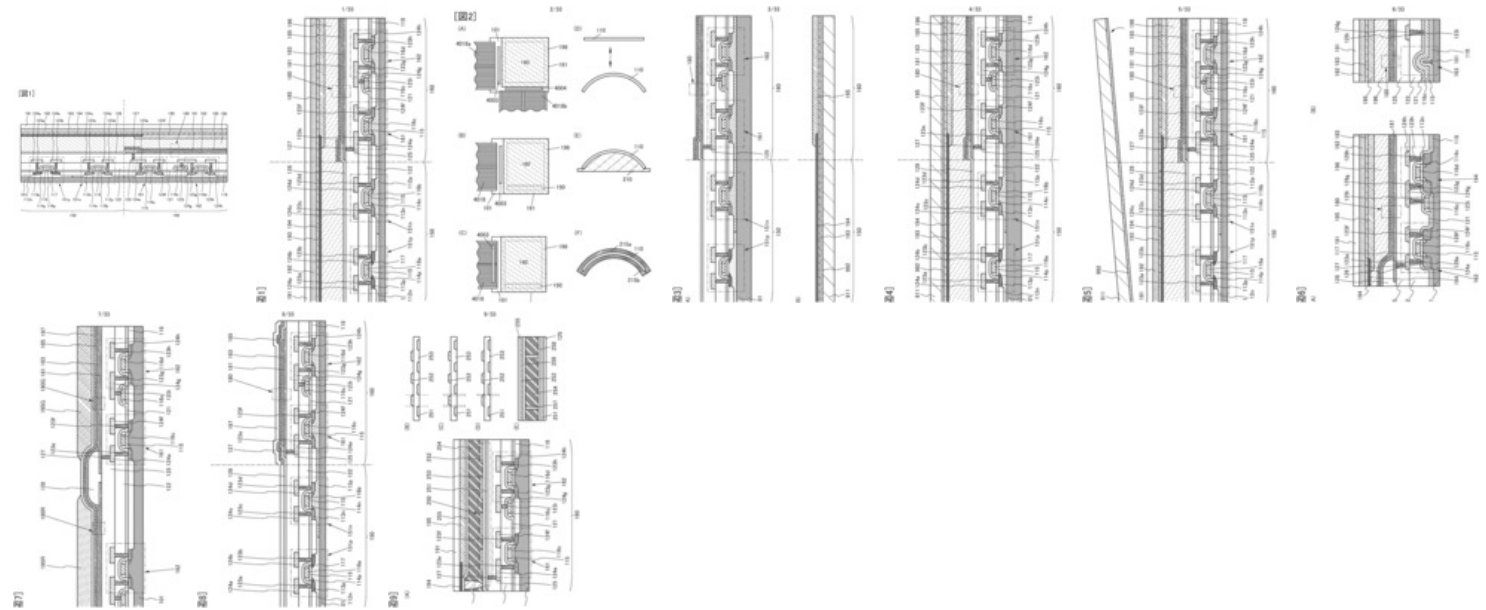
70. Headup display for vehicle and display system JP2000203309 1999-01-14 DENSO* 2000-07-25 2000-07-25

PROBLEM TO BE SOLVED: To display multiple information at a sufficient information quantity easy to see for a user by adjusting at least one of the display size, display position and number of items displayed concurrently of the display information, and controlling the projection to a screen section by a projector. SOLUTION: The display objects of display information include a 'direct view type' displaying the information on a display device 26 itself and a 'projection type' displaying the information projected by a projector 32 on a screen section 35. A control circuit 30 switches two kinds of display objects according to the state of a vehicle. When the information is projected by the projector 32 and displayed on the screen section 35, the display size, display position and number of items displayed concurrently of the display information can be adjusted. When the information is displayed on the screen section 35, a user can instruct the display size, display position and the number of items displayed concurrently of the display information from a remote control sensor 22 via remote control.

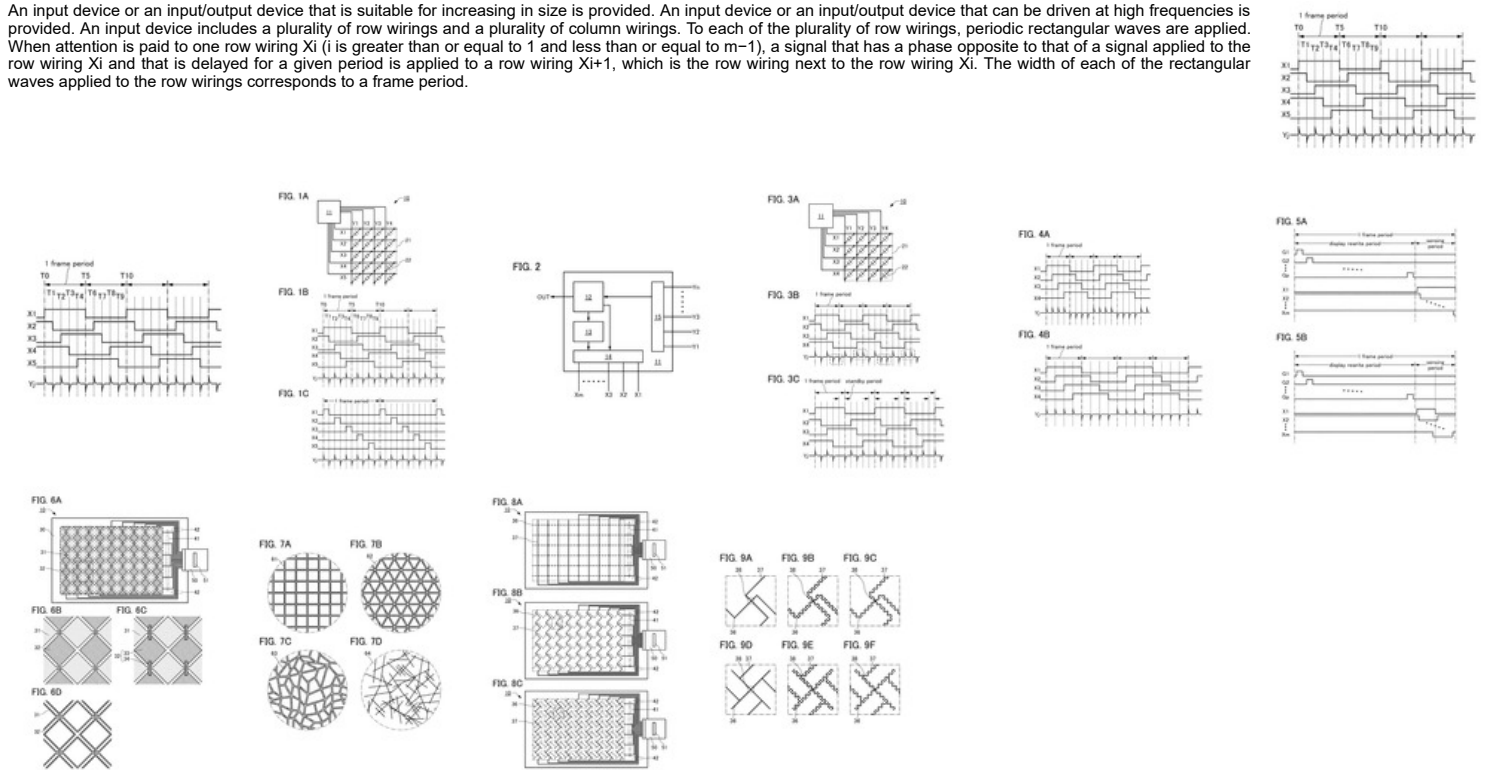


71. Method for fabricating display device, display device, electronic device, projector, and head-mounted display WO2016203340 2016-06-07 SEMICONDUCTOR ENERGY LABORATORY* 2016-12-22 2016-12-22

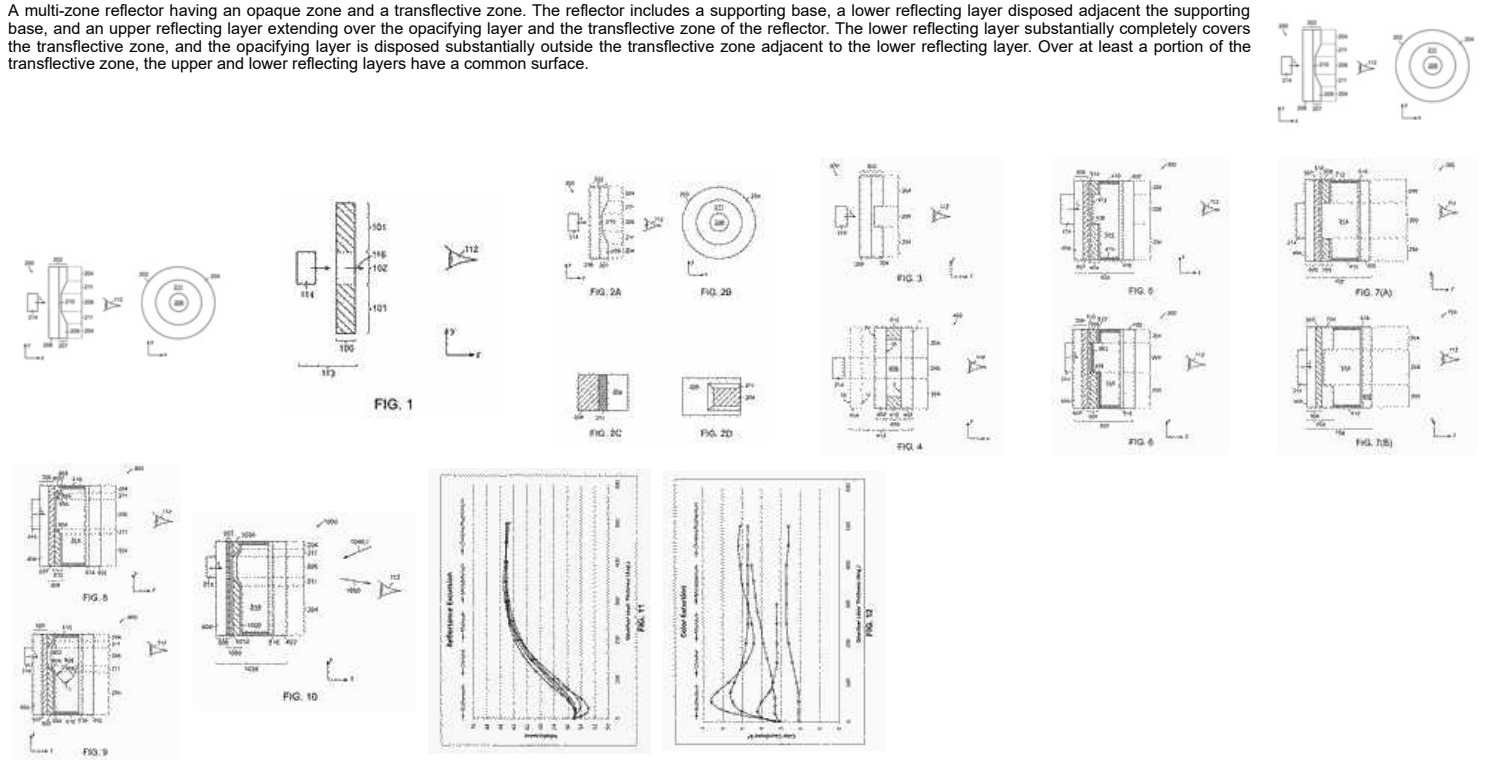
One purpose of the present invention is to provide a flexible display device with extremely high definition. Another purpose of the present invention is to provide a curved display device having extremely high definition. Yet another purpose of the present invention is to fabricate a display device having high definition, using a substrate having minimal heat shrinkage. In concrete terms, a display element is fabricated on a crystalline substrate such as a single crystal silicon substrate. A transistor having a channel-forming region on the crystalline substrate may be formed as a transistor for driving the display element; it is also possible to form an insulating film on the crystalline substrate and form the transistor on the insulating film. Moreover, the flexibility of the display device is improved by grinding the crystalline substrate.



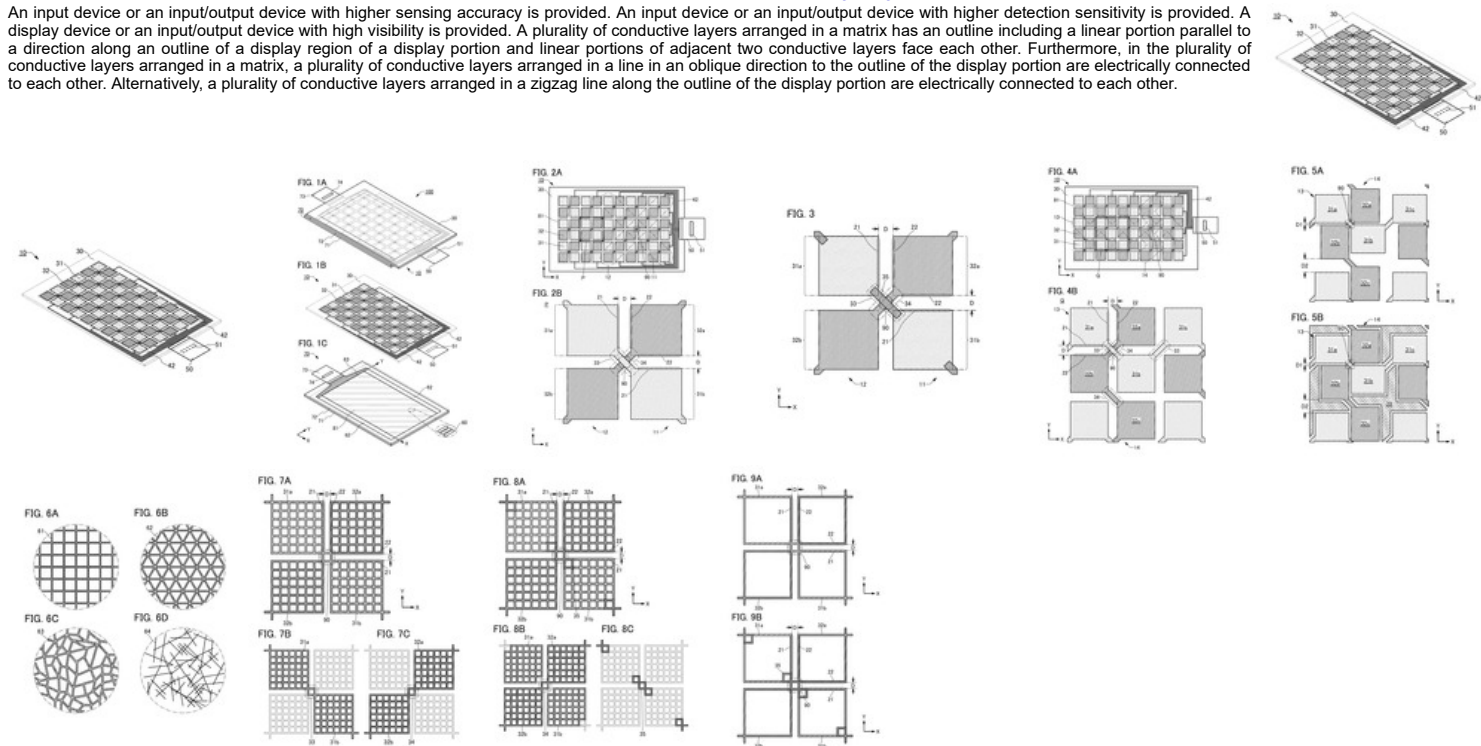
An input device or an input/output device that is suitable for increasing in size is provided. An input device or an input/output device that can be driven at high frequencies is provided. An input device includes a plurality of row wirings and a plurality of column wirings. To each of the plurality of row wirings, periodic rectangular waves are applied. When attention is paid to one row wiring Xi (i is greater than or equal to 1 and less than or equal to m-1), a signal that has a phase opposite to that of a signal applied to the row wiring Xi and that is delayed for a given period is applied to a row wiring Xi+1, which is the row wiring next to the row wiring Xi. The width of each of the rectangular waves applied to the row wirings corresponds to a frame period.



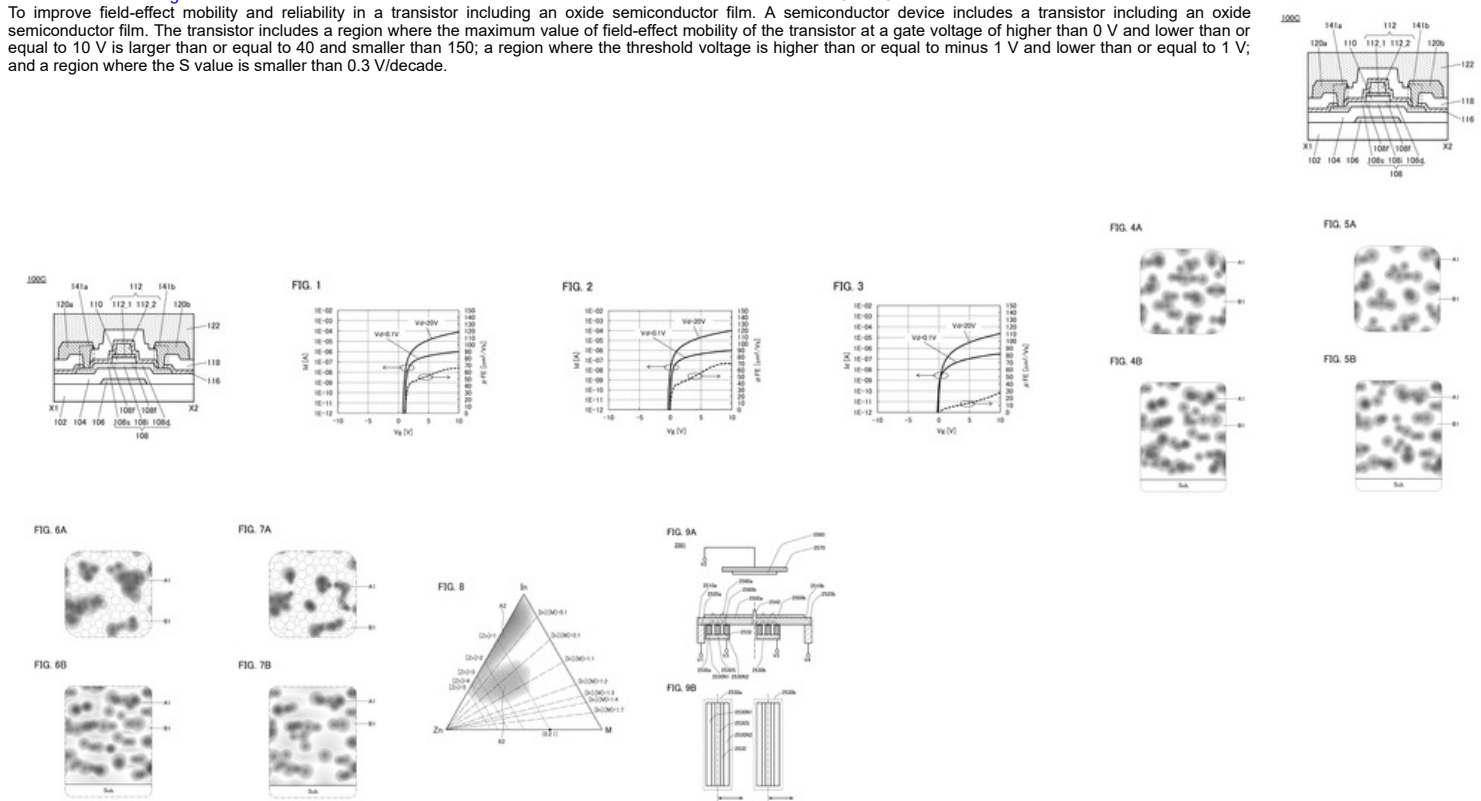
A multi-zone reflector having an opaque zone and a transfective zone. The reflector includes a supporting base, a lower reflecting layer disposed adjacent the supporting base, and an upper reflecting layer extending over the opacifying layer and the transfective zone of the reflector. The lower reflecting layer substantially completely covers the transfective zone, and the opacifying layer is disposed substantially outside the transfective zone adjacent to the lower reflecting layer. Over at least a portion of the transfective zone, the upper and lower reflecting layers have a common surface.



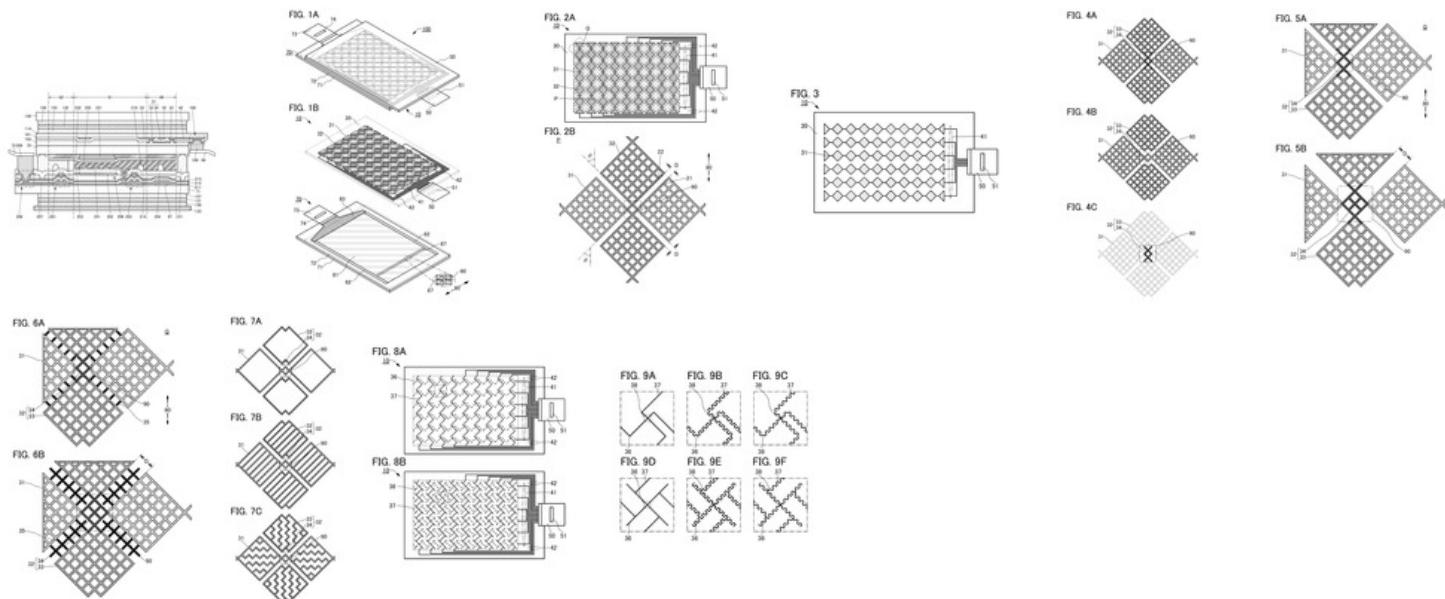
An input device or an input/output device with higher sensing accuracy is provided. An input device or an input/output device with higher detection sensitivity is provided. A display device or an input/output device with high visibility is provided. A plurality of conductive layers arranged in a matrix has an outline including a linear portion parallel to a direction along an outline of a display region of a display portion and linear portions of adjacent two conductive layers face each other. Furthermore, in the plurality of conductive layers arranged in a matrix, a plurality of conductive layers arranged in a line in an oblique direction to the outline of the display portion are electrically connected to each other. Alternatively, a plurality of conductive layers arranged in a zigzag line along the outline of the display portion are electrically connected to each other.



To improve field-effect mobility and reliability in a transistor including an oxide semiconductor film. A semiconductor device includes a transistor including an oxide semiconductor film. The transistor includes a region where the maximum value of field-effect mobility of the transistor at a gate voltage of higher than 0 V and lower than or equal to 10 V is larger than or equal to 40 and smaller than 150; a region where the threshold voltage is higher than or equal to minus 1 V and lower than or equal to 1 V; and a region where the S value is smaller than 0.3 V/decade.

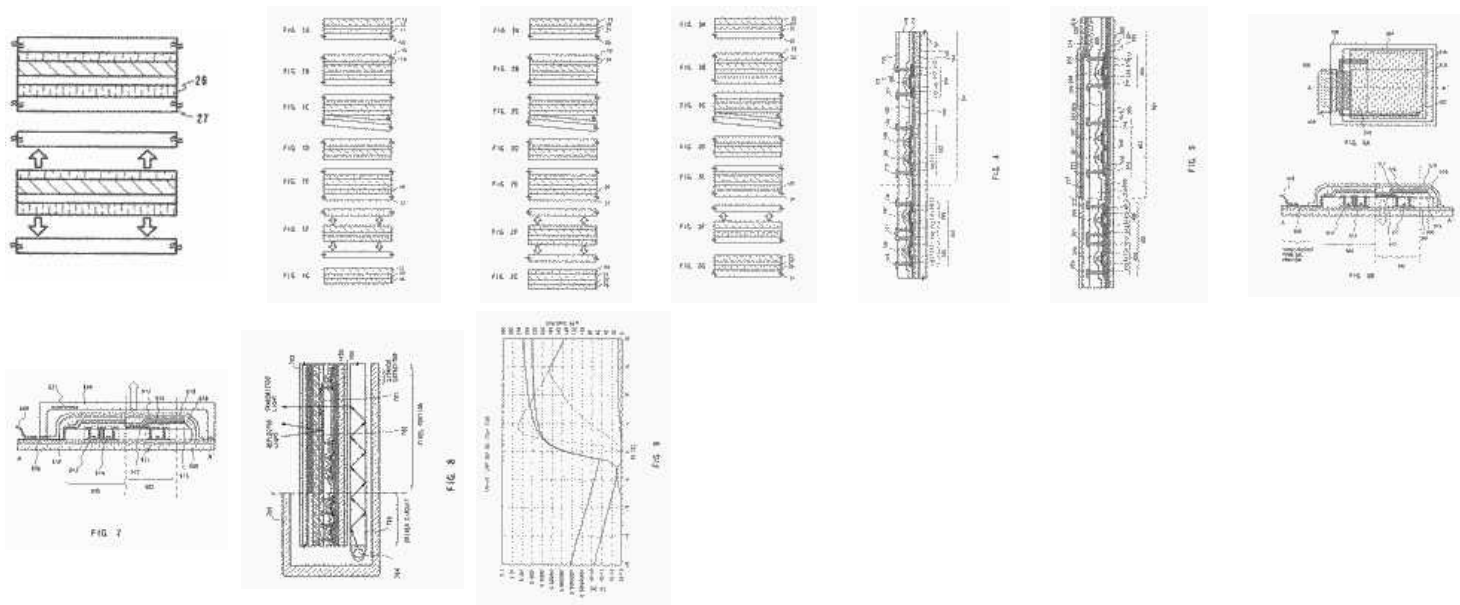


Technical drawing of a mechanical assembly, likely a pump or engine component, showing a cross-section with various parts labeled with numbers and letters. The drawing includes dimensions and a scale bar.

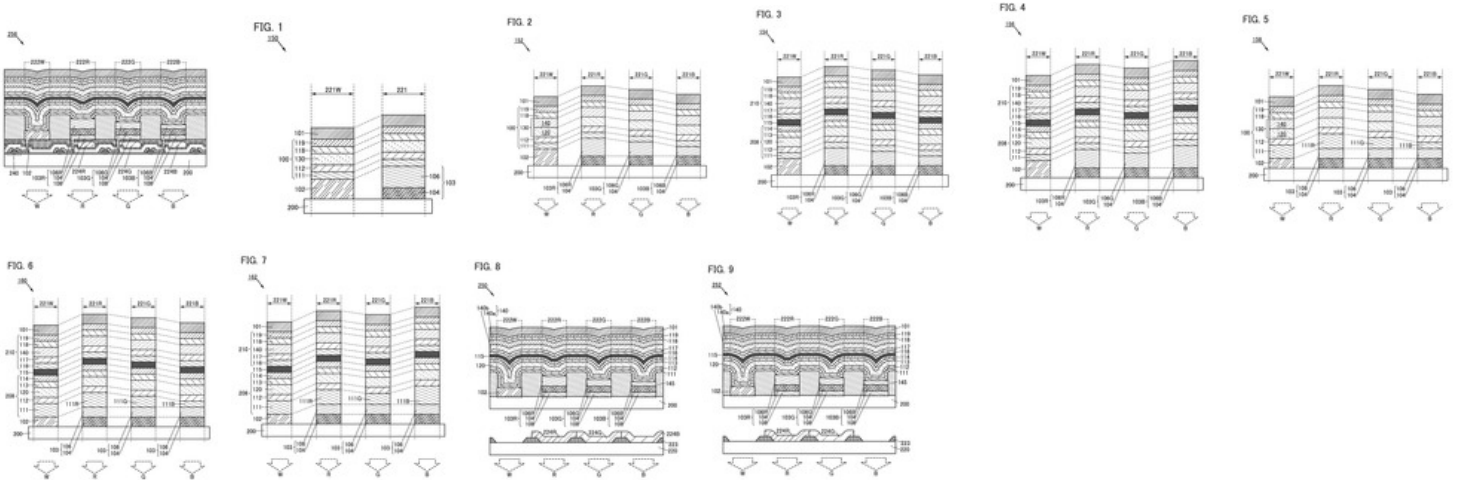


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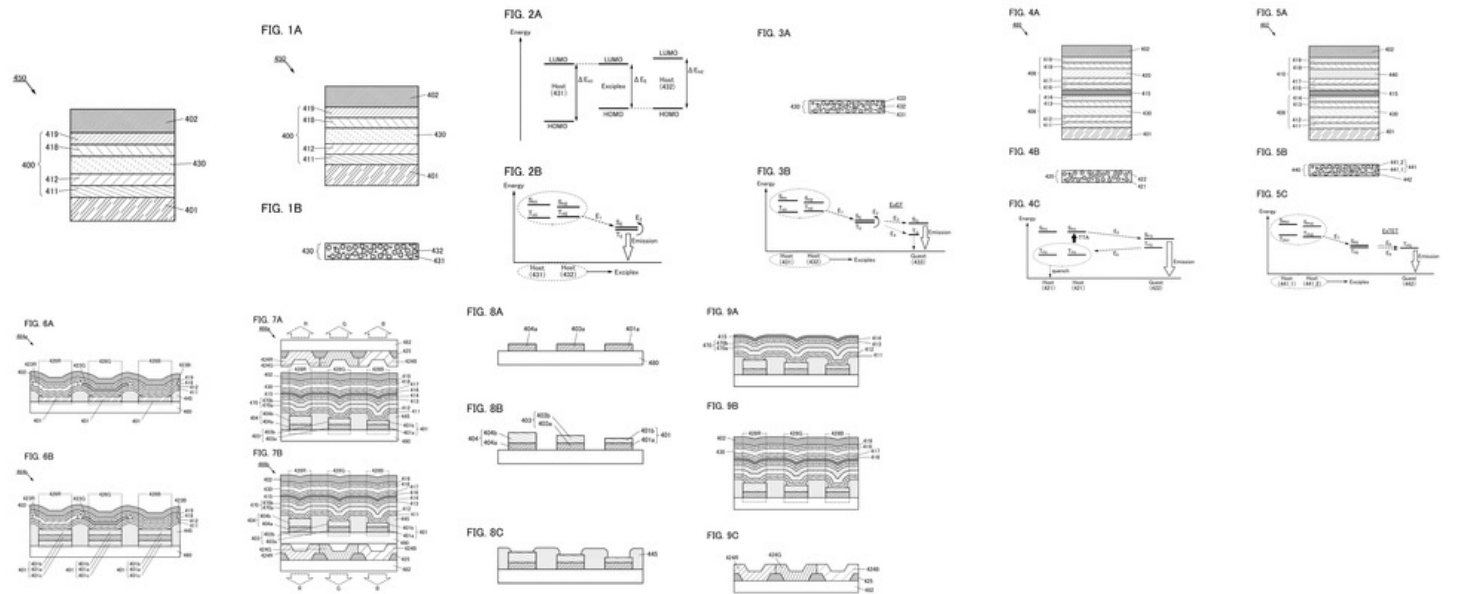
Fig. 1 shows a schematic diagram of a two-layered structure. It consists of a central layer 26 and two outer layers 27. Arrows indicate forces applied to the layers, showing a compressive or tensile state.



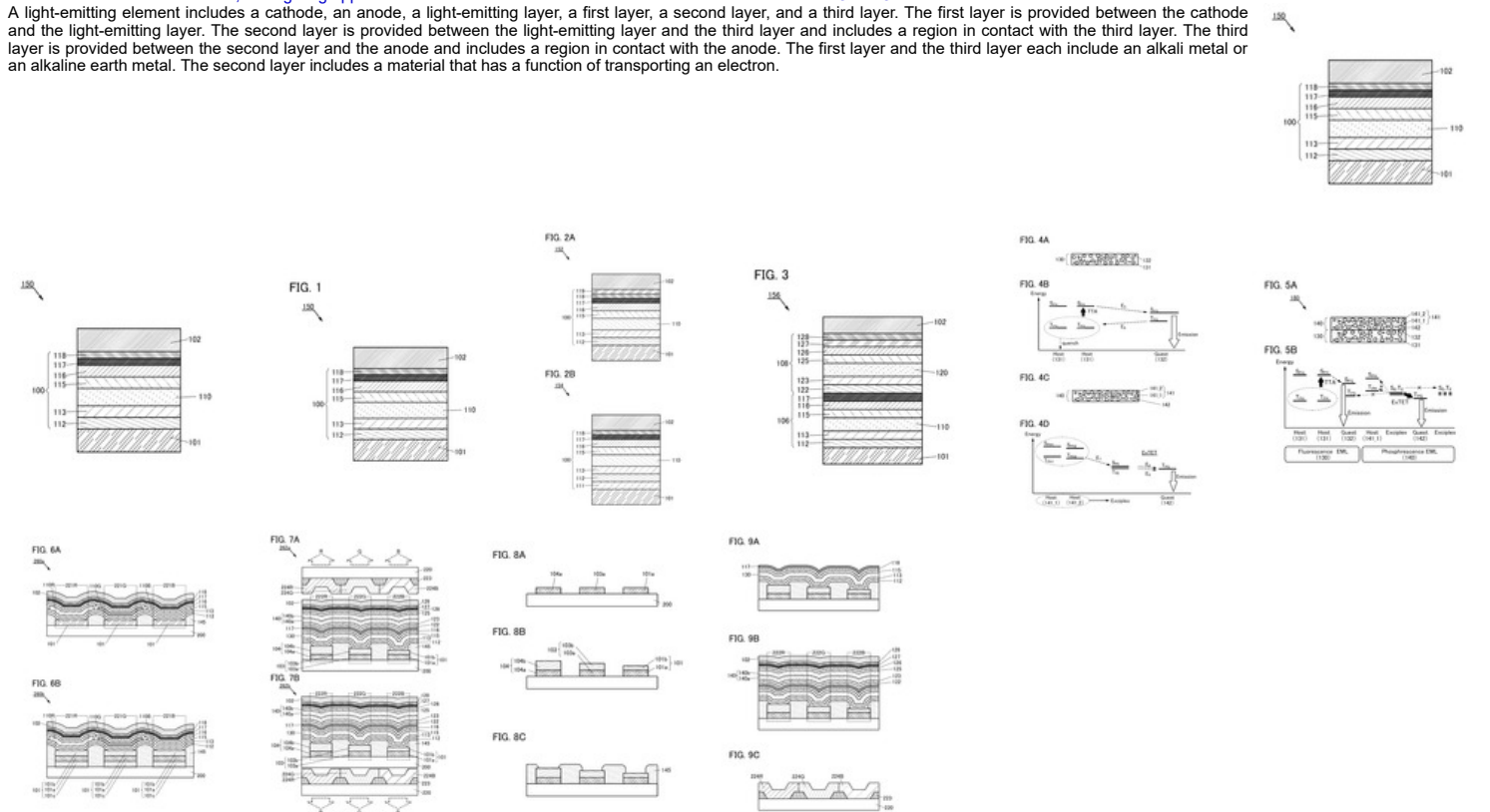
One object of this invention is to provide a novel light-emitting device with low power consumption. The light-emitting device includes a first light-emitting element and a second light-emitting element. The first light-emitting element includes a first electrode, a second electrode, and a light-emitting layer. The second light-emitting element includes the first electrode, a third electrode, and the light-emitting layer. The second electrode comprises only a first conductive film, and the third electrode comprises a second conductive film and a third conductive film. The first electrode has a function of reflecting light. The second conductive film has functions of reflecting light and transmitting light. The first conductive film and the third conductive film each have a function of transmitting light.



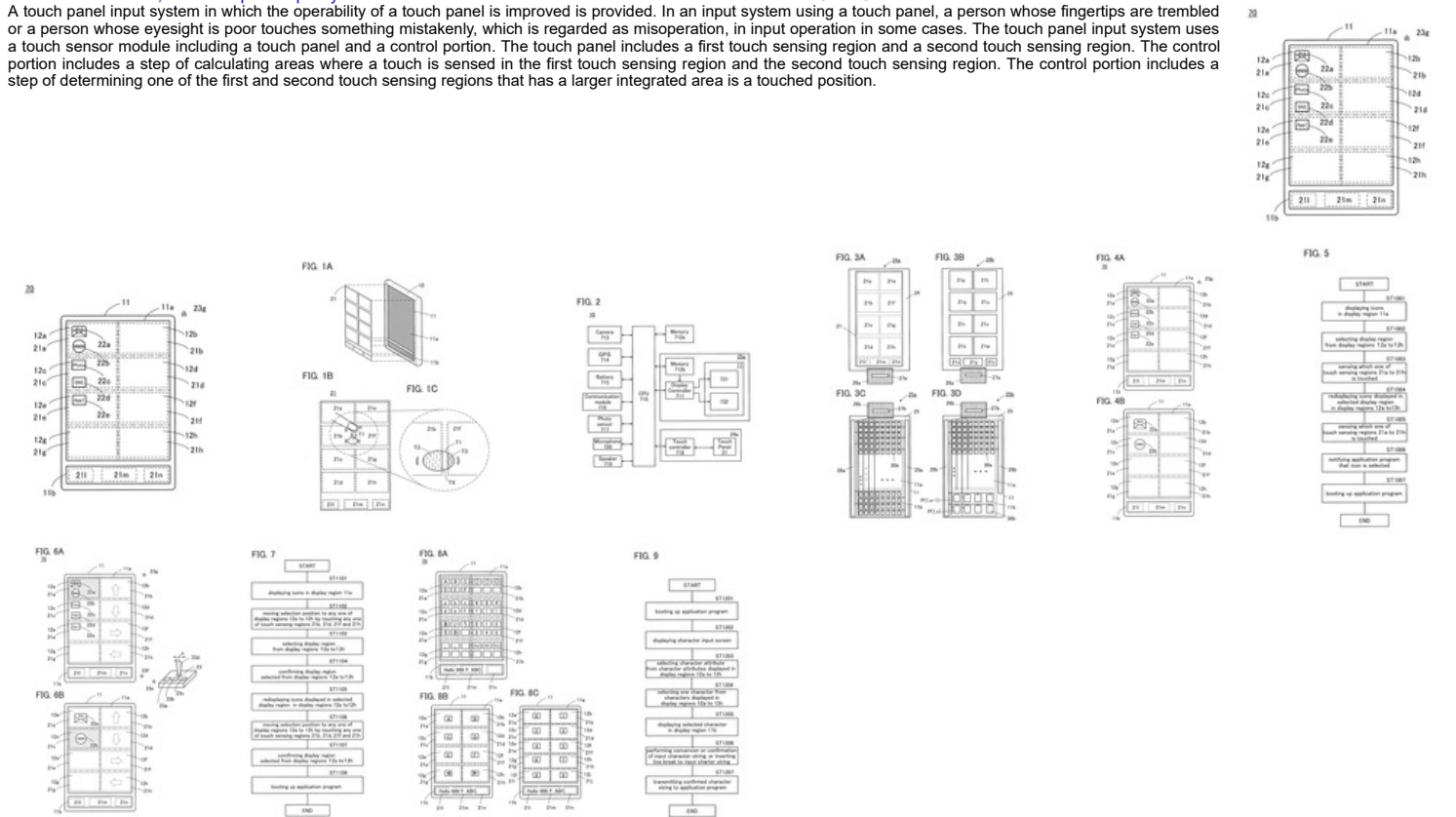
To provide a light-emitting element including an exciplex that efficiently emits light. The light-emitting element includes a first organic compound and a second organic compound. A combination of the first organic compound and the second organic compound forms an exciplex. The energy difference between the LUMO level of the first organic compound and the HOMO level of the second organic compound is greater than the emission energy of the exciplex by -0.1 eV or more and 0.4 eV or less. The lower of the lowest triplet excitation energy level of the first organic compound and the lowest triplet excitation energy level of the second organic compound has energy that is larger than the emission energy of the exciplex by -0.2 eV or more and 0.4 eV or less.



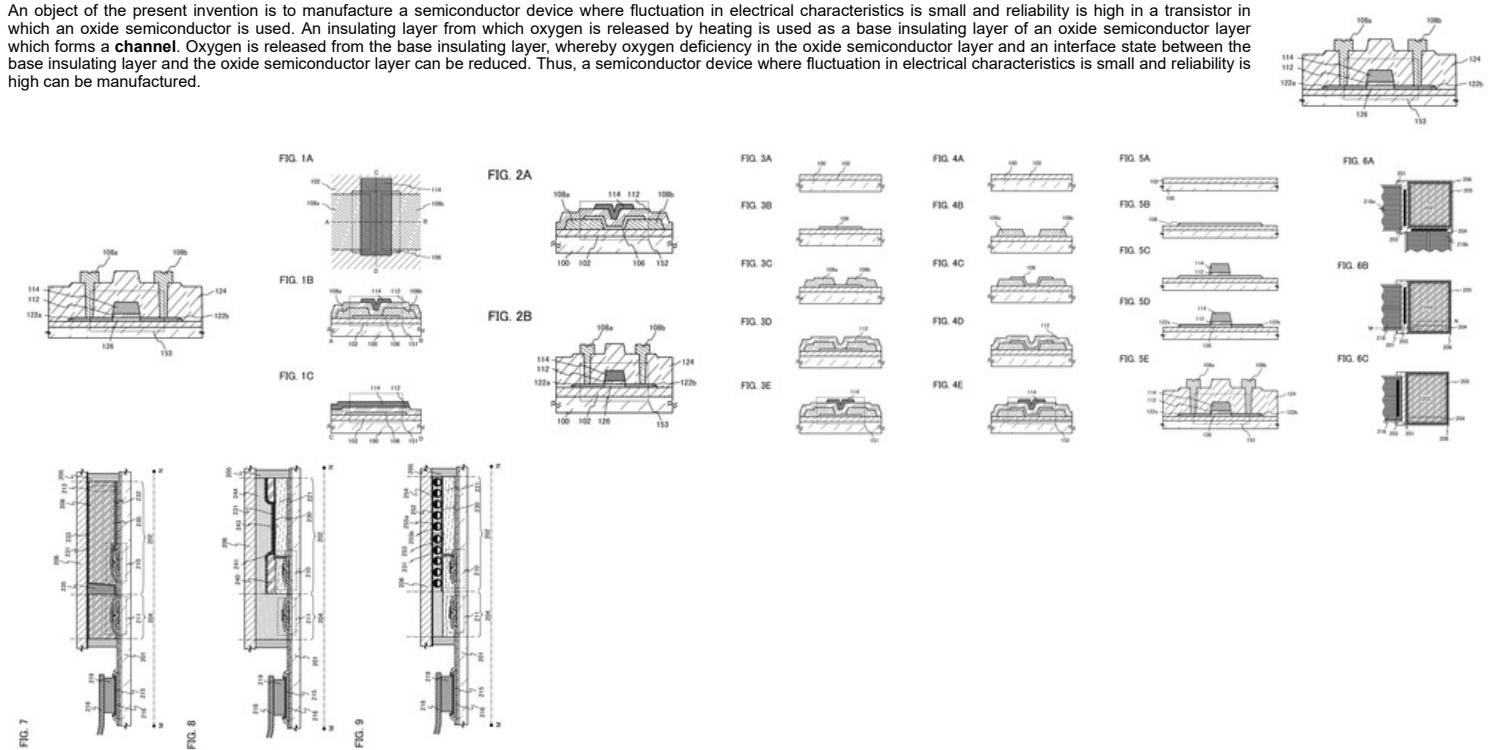
A light-emitting element includes a cathode, an anode, a light-emitting layer, a first layer, a second layer, and a third layer. The first layer is provided between the cathode and the light-emitting layer. The second layer is provided between the light-emitting layer and the third layer and includes a region in contact with the third layer. The third layer is provided between the second layer and the anode and includes a region in contact with the anode. The first layer and the third layer each include an alkali metal or an alkaline earth metal. The second layer includes a material that has a function of transporting an electron.



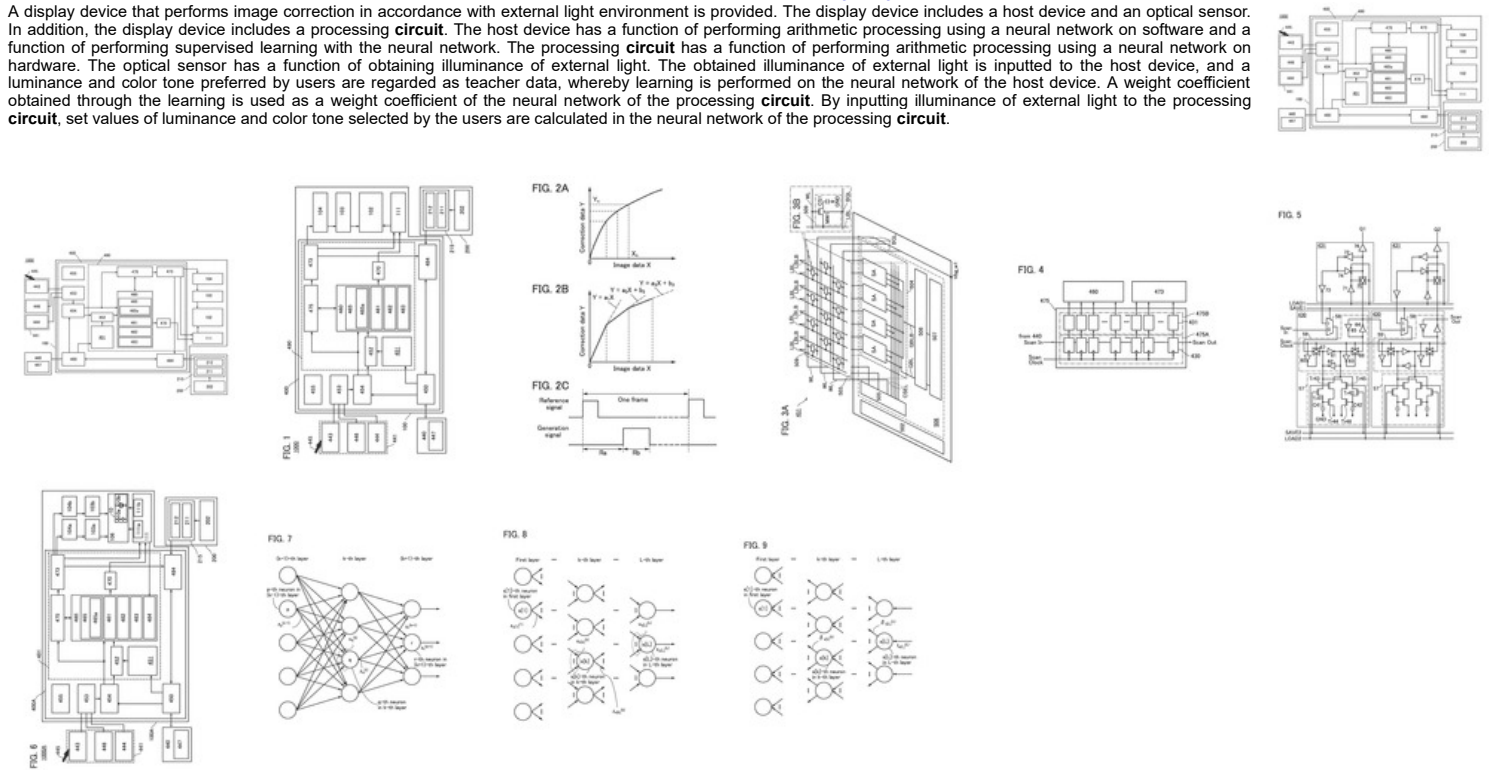
A touch panel input system in which the operability of a touch panel is improved is provided. In an input system using a touch panel, a person whose fingertips are trembled or a person whose eyesight is poor touches something mistakenly, which is regarded as misoperation, in input operation in some cases. The touch panel input system uses a touch sensor module including a touch panel and a control portion. The touch panel includes a first touch sensing region and a second touch sensing region. The control portion includes a step of calculating areas where a touch is sensed in the first touch sensing region and the second touch sensing region. The control portion includes a step of determining one of the first and second touch sensing regions that has a larger integrated area is a touched position.



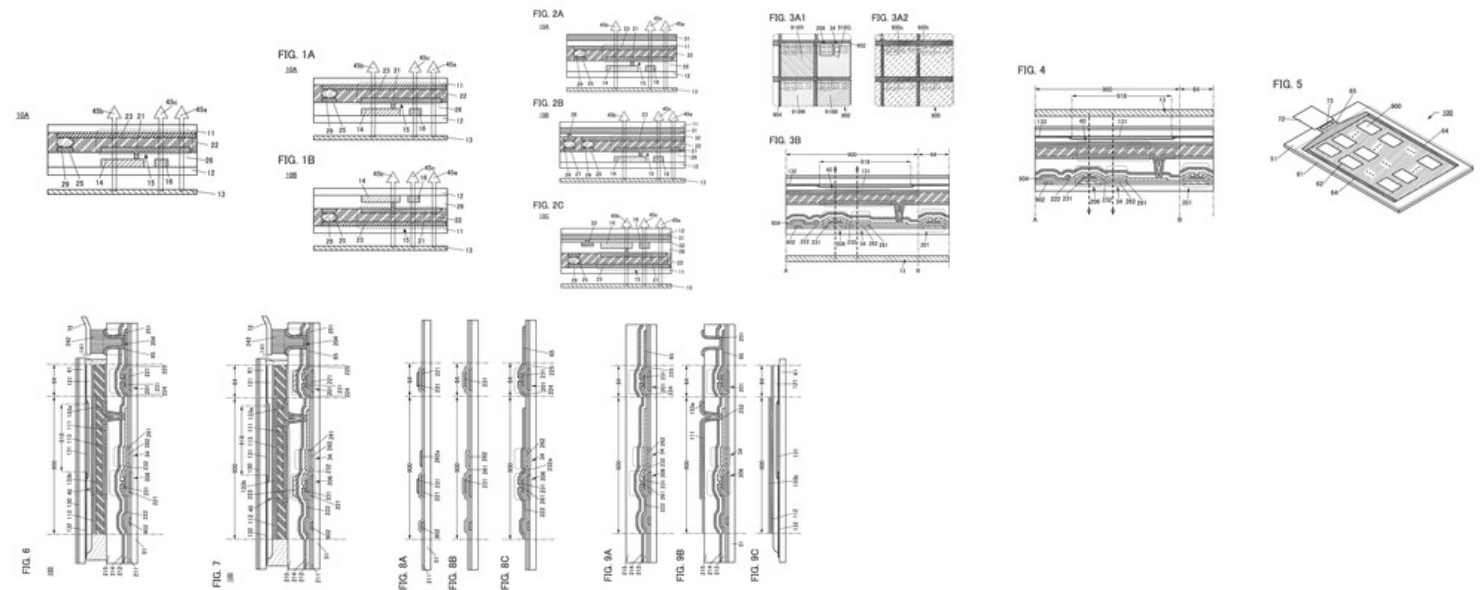
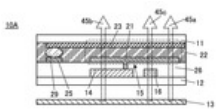
An object of the present invention is to manufacture a semiconductor device where fluctuation in electrical characteristics is small and reliability is high in a transistor in which an oxide semiconductor is used. An insulating layer from which oxygen is released by heating is used as a base insulating layer of an oxide semiconductor layer which forms a **channel**. Oxygen is released from the base insulating layer, whereby oxygen deficiency in the oxide semiconductor layer and an interface state between the base insulating layer and the oxide semiconductor layer can be reduced. Thus, a semiconductor device where fluctuation in electrical characteristics is small and reliability is high can be manufactured.



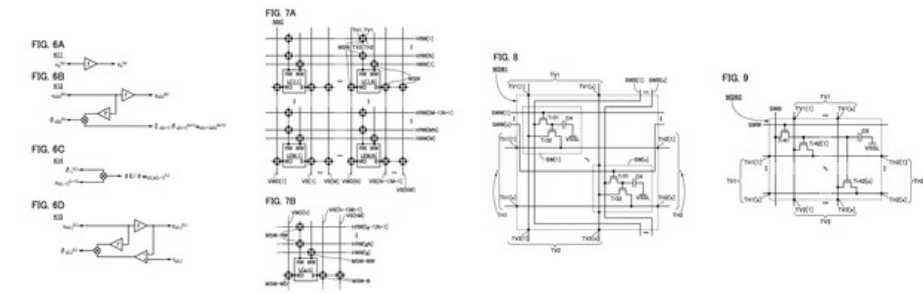
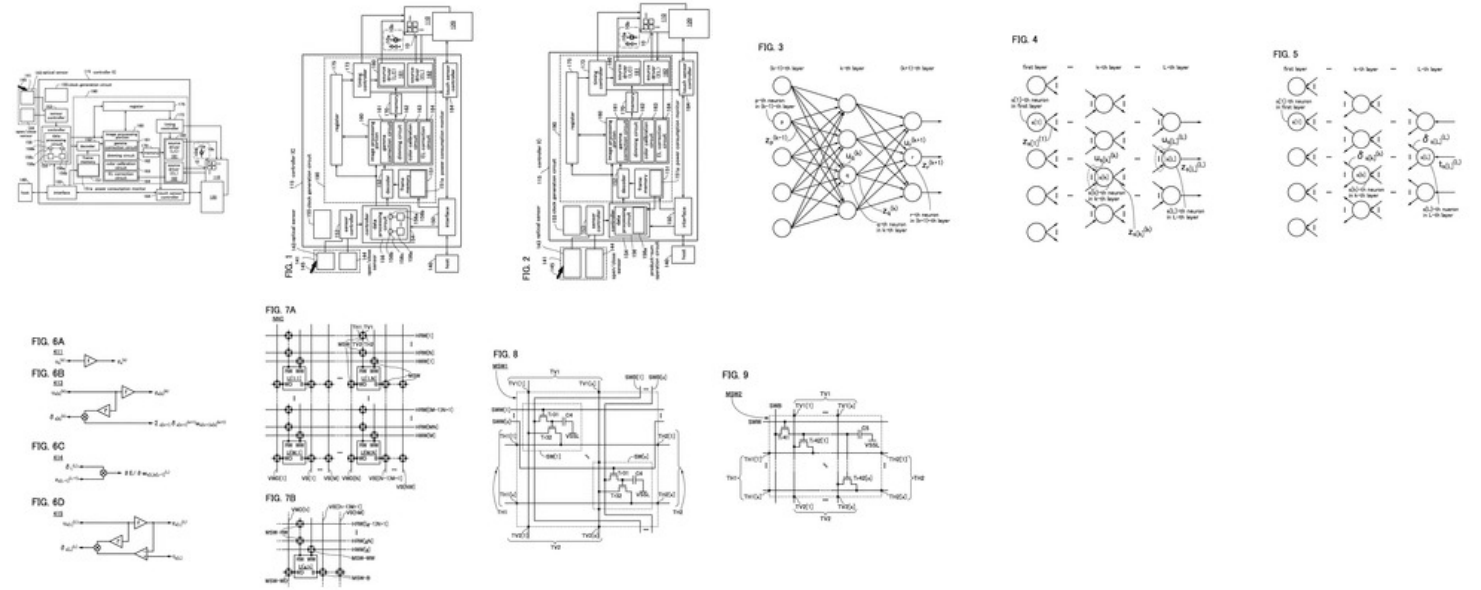
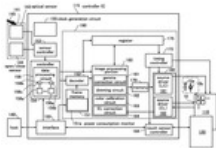
A display device that performs image correction in accordance with external light environment is provided. The display device includes a host device and an optical sensor. In addition, the display device includes a processing **circuit**. The host device has a function of performing arithmetic processing using a neural network on software and a function of performing supervised learning with the neural network. The processing **circuit** has a function of performing arithmetic processing using a neural network on hardware. The optical sensor has a function of obtaining illuminance of external light. The obtained illuminance of external light is inputted to the host device, and a luminance and color tone preferred by users are regarded as teacher data, whereby learning is performed on the neural network of the host device. A weight coefficient obtained through the learning is used as a weight coefficient of the neural network of the processing **circuit**. By inputting illuminance of external light to the processing **circuit**, set values of luminance and color tone selected by the users are calculated in the neural network of the processing **circuit**.



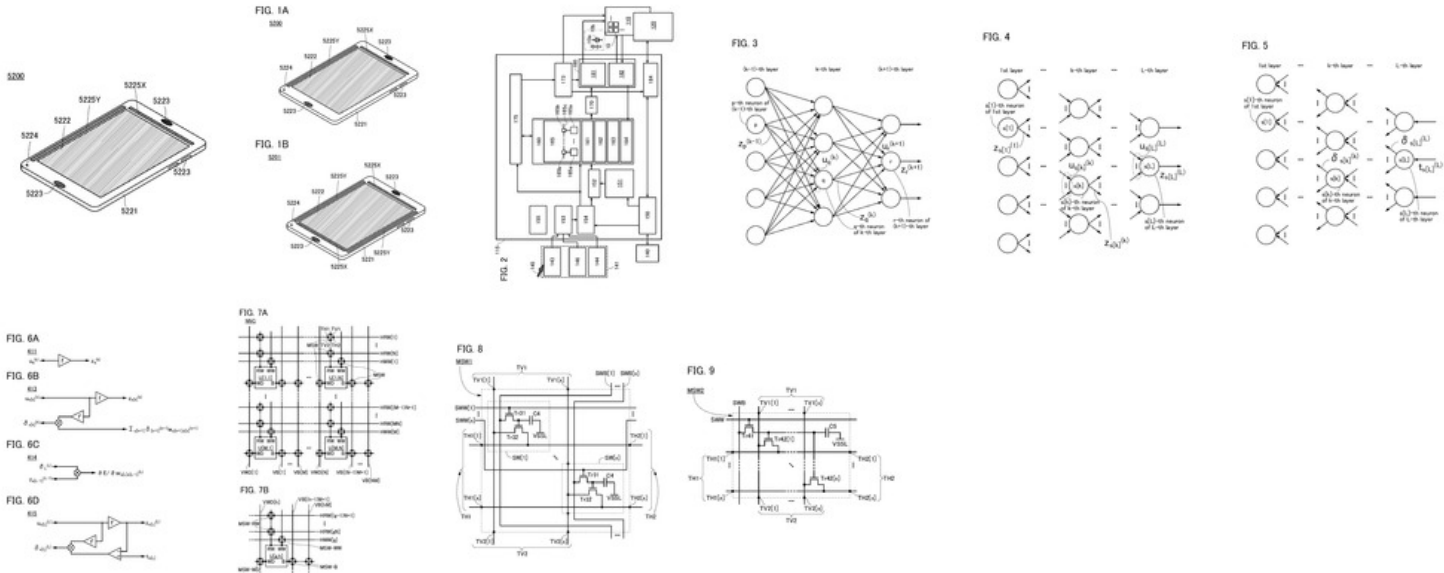
A liquid crystal display device with a high aperture ratio is provided. A liquid crystal display device with low power consumption is provided. A display device includes a transistor and a capacitor. The transistor includes a first insulating layer, a first semiconductor layer in contact with the first insulating layer, a second insulating layer in contact with the first semiconductor layer, and a first conductive layer electrically connected to the first semiconductor layer via an opening portion provided in the second insulating layer. The capacitor includes a second conductive layer in contact with the first insulating layer, the second insulating layer in contact with the second conductive layer, and the first conductive layer in contact with the second insulating layer. The second conductive layer includes a composition similar to that of the first semiconductor layer. The first conductive layer and the second conductive layer are configured to transmit visible light.



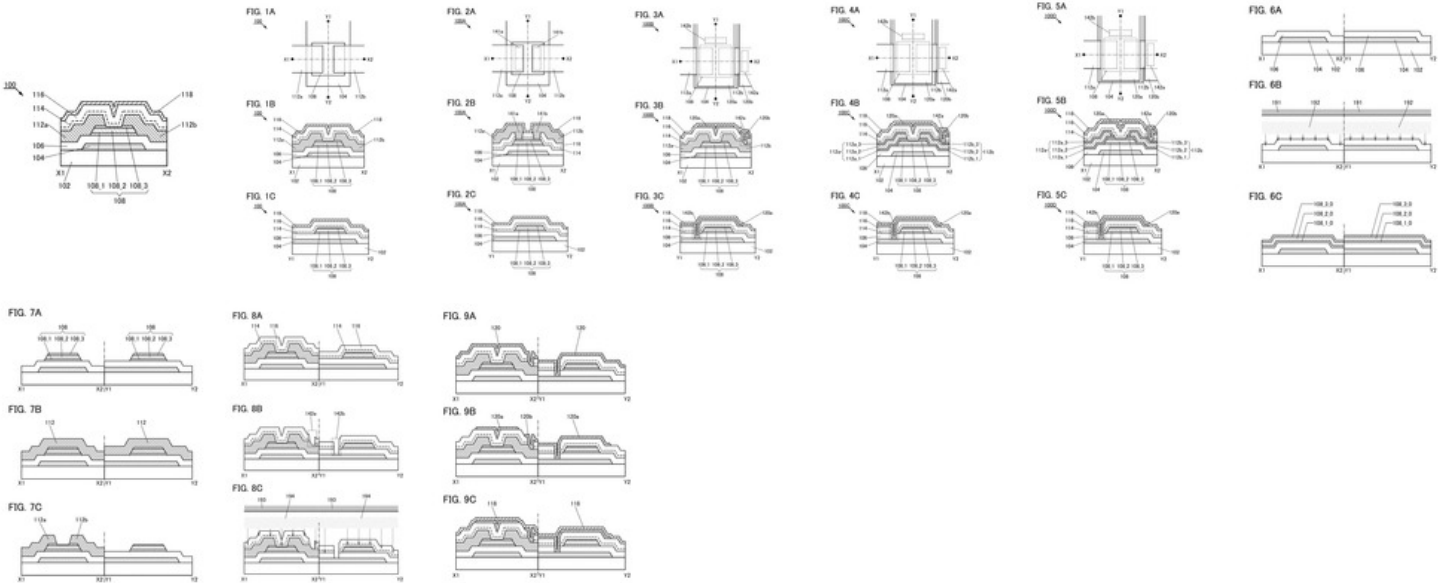
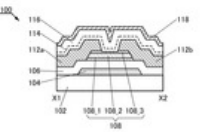
To provide an electronic device with reduced power consumption. In the case where rewriting of image data is not performed in an electronic device including a display device, a source driver, a gate driver, an image processing circuit, and the like that drive the display device are power-gated, reducing the power consumption of the electronic device. When power gating is performed, setting data needs to be saved into a memory device in advance. It is preferable that the saving of setting data be performed according to a prediction that power gating is to be performed. To predict whether to perform power gating, learning and calculation using a neural network are carried out. Predictive information about whether to perform power gating is obtained by the calculation, and when power gating is performed, saving of setting data into the memory device is speculatively executed.



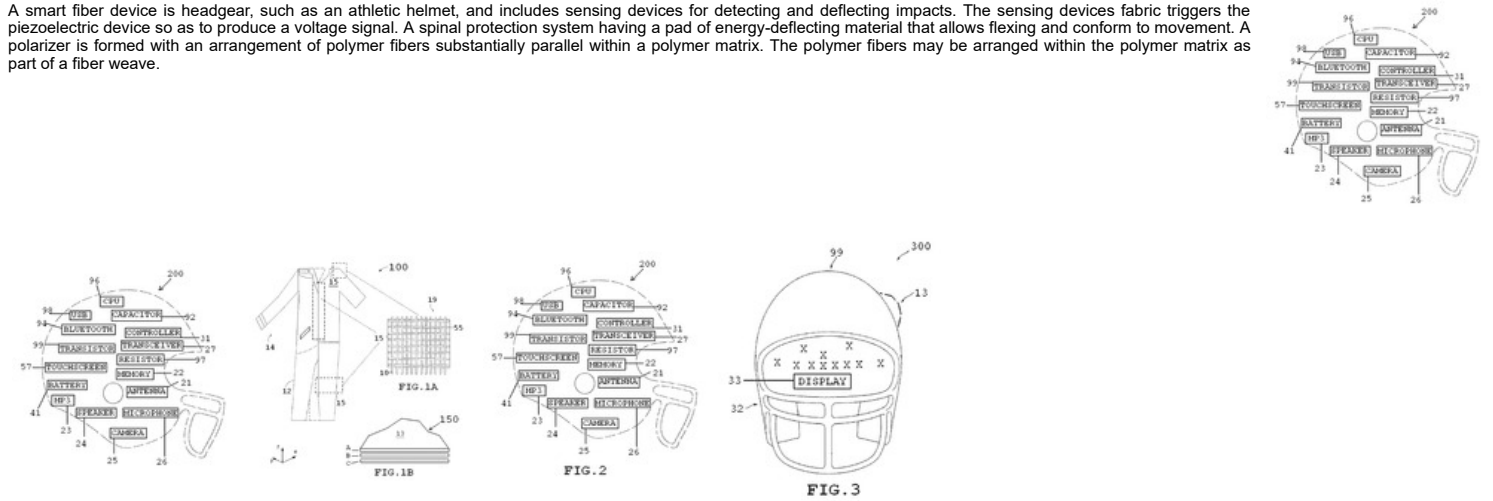
Provided is an electronic device whose display quality is independent of environment light. The electronic device is provided with an optical sensor, an acceleration sensor, and the like so that information including the brightness of external light, the angle of external light incident on the electronic device, and the orientation of the display portion in the electronic device is obtained, and the luminance and color tone of the display portion in the electronic device are corrected on the basis of the information. As the correcting method, calculation using a neural network is performed using the luminance and color tone meeting the preference of the user as teacher data and the obtained information as input data. The calculation result is reflected on the luminance and color tone of the display portion in the electronic device, whereby an image with display quality that suits the user's preference can be displayed.



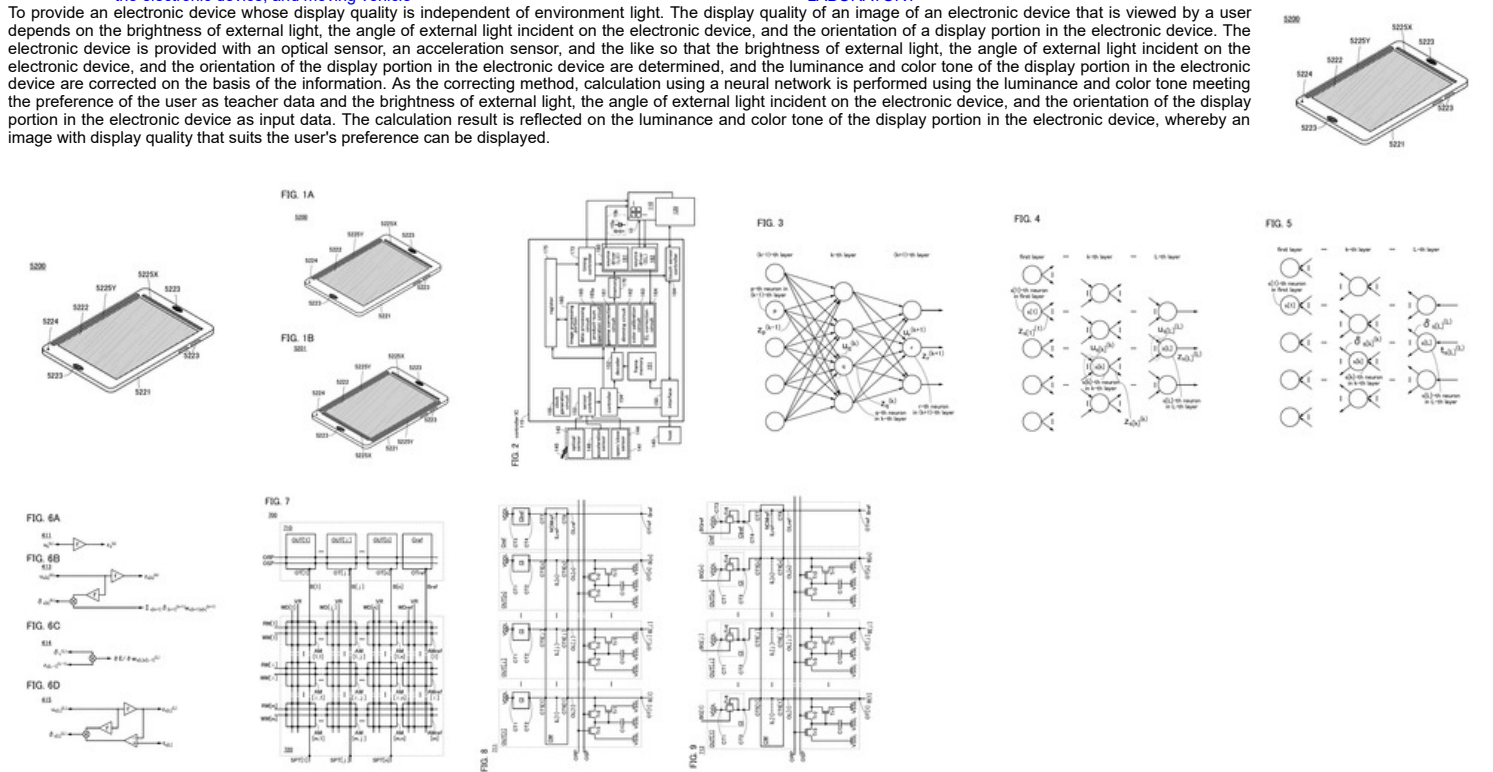
The field-effect mobility and reliability of a transistor including an oxide semiconductor film are improved. One embodiment of the present invention is a semiconductor device which includes a gate electrode, an insulating film over the gate electrode, an oxide semiconductor film over the insulating film, and a pair of electrodes over the oxide semiconductor film. The oxide semiconductor film includes a first oxide semiconductor film, a second oxide semiconductor film over the first oxide semiconductor film, and a third oxide semiconductor film over the second oxide semiconductor film. The first oxide semiconductor film, the second oxide semiconductor film, and the third oxide semiconductor film include the same element. The second oxide semiconductor film includes a region having lower crystallinity than one or both of the first oxide semiconductor film and the third oxide semiconductor film.



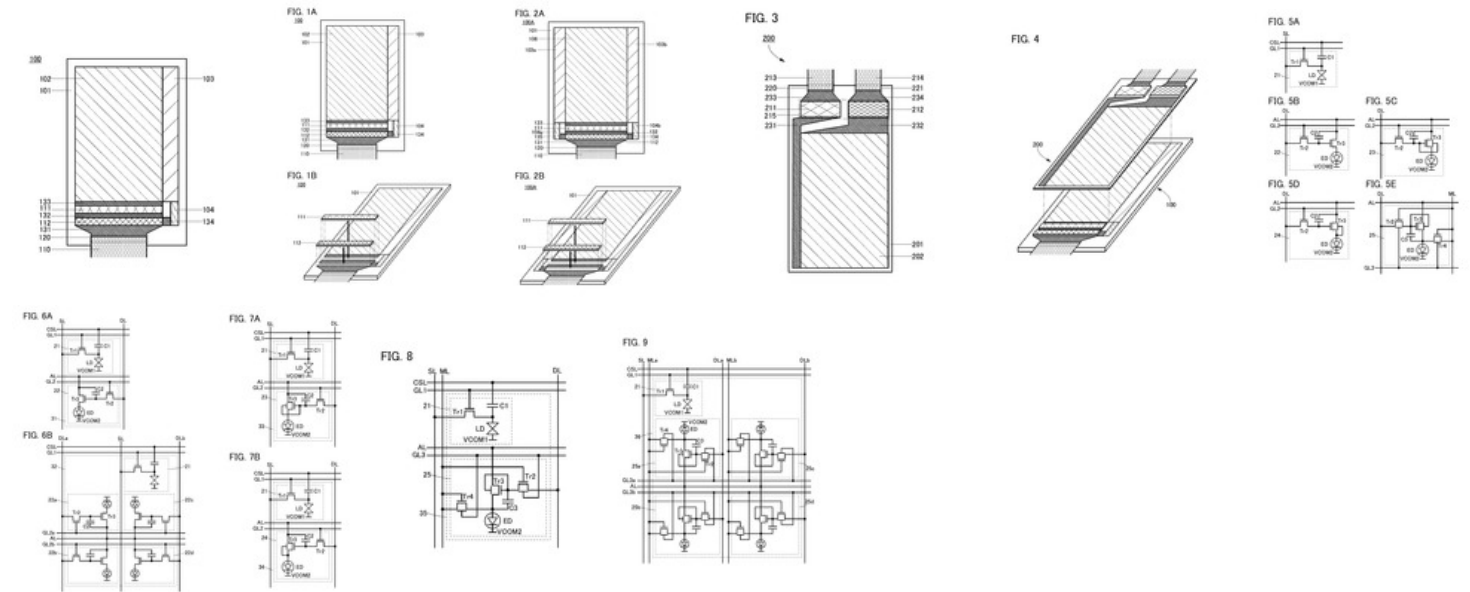
A smart fiber device is headgear, such as an athletic helmet, and includes sensing devices for detecting and deflecting impacts. The sensing devices fabric triggers the piezoelectric device so as to produce a voltage signal. A spinal protection system having a pad of energy-deflecting material that allows flexing and conform to movement. A polarizer is formed with an arrangement of polymer fibers substantially parallel within a polymer matrix. The polymer fibers may be arranged within the polymer matrix as part of a fiber weave.



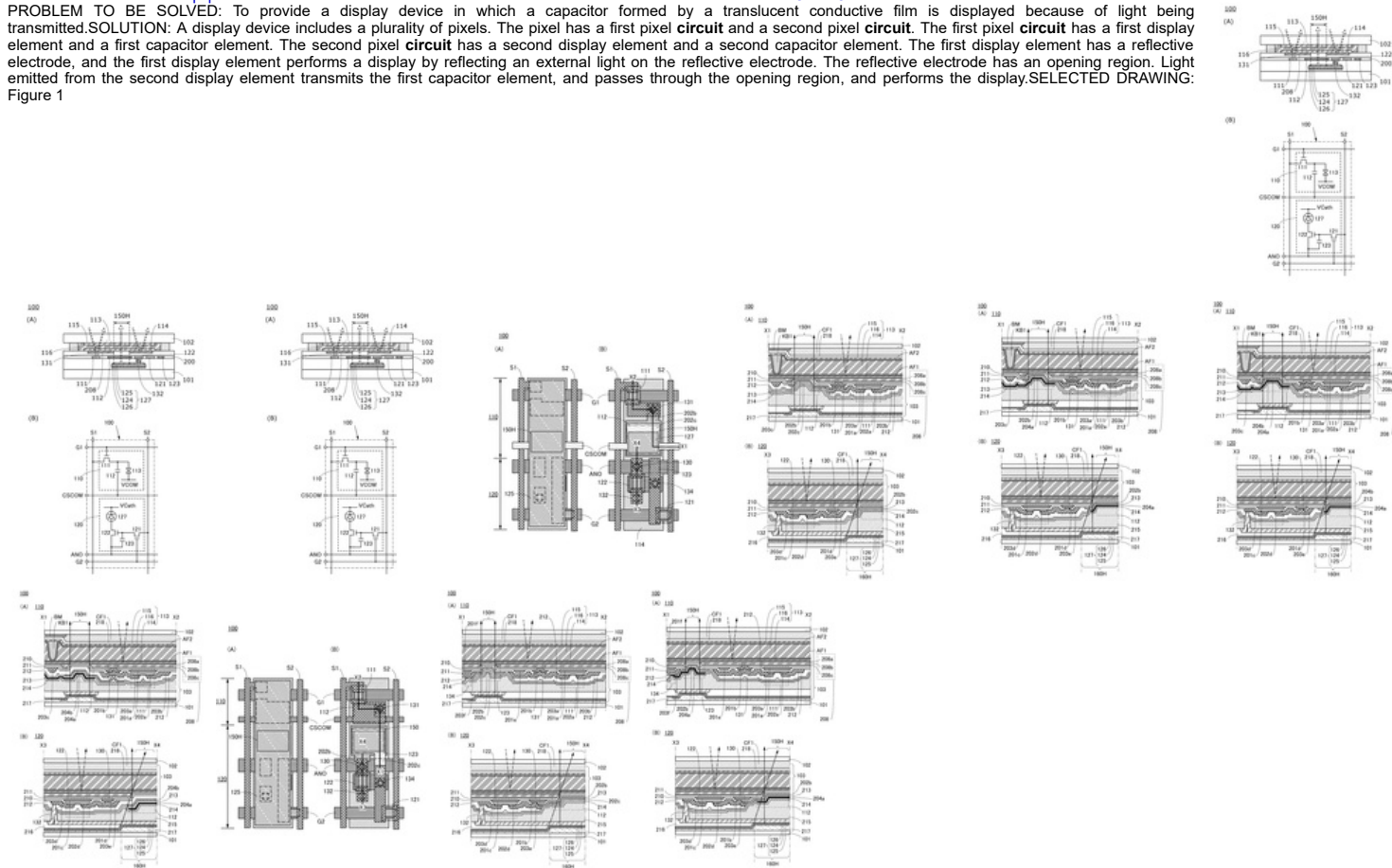
To provide an electronic device whose display quality is independent of environment light. The display quality of an image of an electronic device that is viewed by a user depends on the brightness of external light, the angle of external light incident on the electronic device, and the orientation of a display portion in the electronic device. The electronic device is provided with an optical sensor, an acceleration sensor, and the like so that the brightness of external light, the angle of external light incident on the electronic device, and the orientation of the display portion in the electronic device are determined, and the luminance and color tone of the display portion in the electronic device are corrected on the basis of the information. As the correcting method, calculation using a neural network is performed using the luminance and color tone meeting the preference of the user as teacher data and the brightness of external light, the angle of external light incident on the electronic device, and the orientation of the display portion in the electronic device as input data. The calculation result is reflected on the luminance and color tone of the display portion in the electronic device, whereby an image with display quality that suits the user's preference can be displayed.



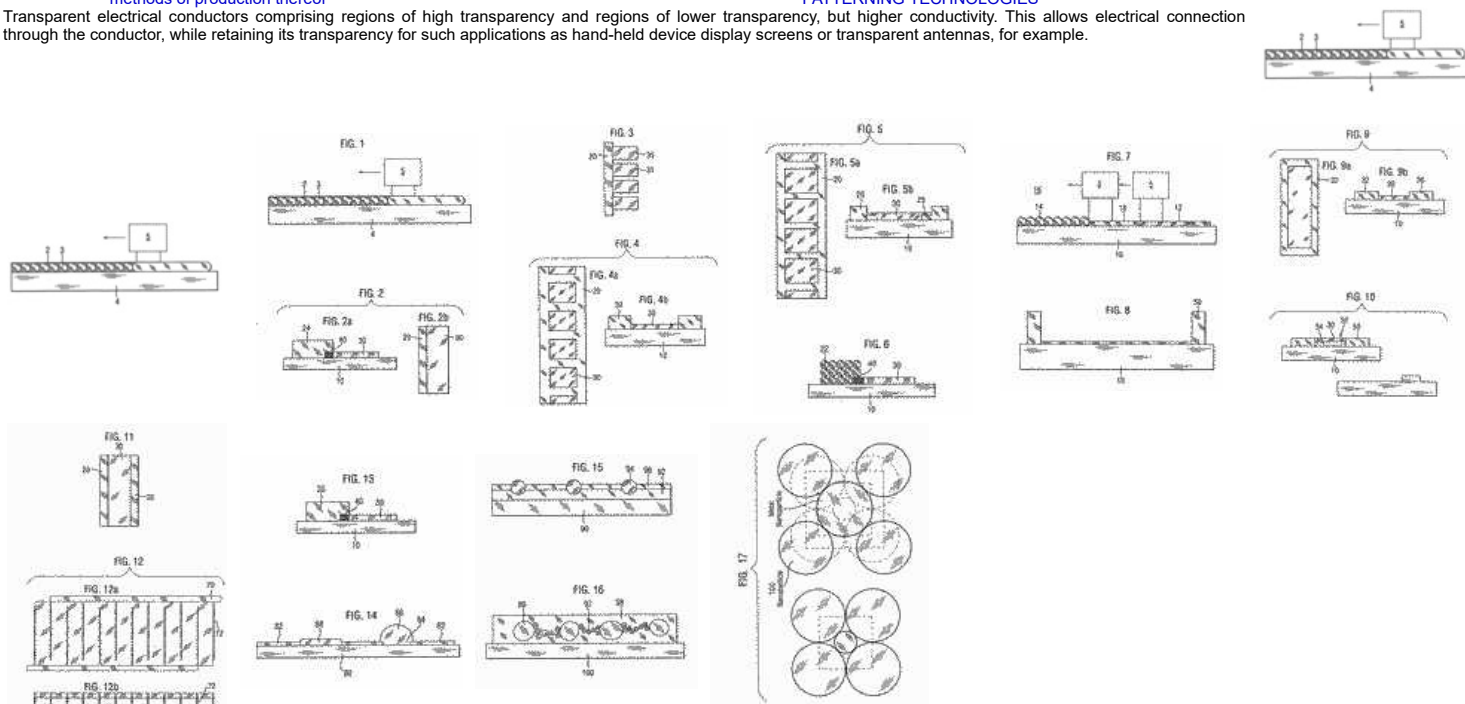
A display device with high driving performance is provided. The display device includes a base, a display portion, a gate driver, a level shifter, a source driver IC, and a controller IC. Each of the display portion, the gate driver, and the level shifter includes a transistor including a metal oxide in a **channel** formation region and is formed over the base. Each of the source driver IC and the controller IC includes a transistor including silicon in a **channel** formation region and is mounted over the base. The display portion is electrically connected to the gate driver and the source driver IC. The gate driver is electrically connected to the controller IC through the level shifter, and the source driver IC is electrically connected to the controller IC.



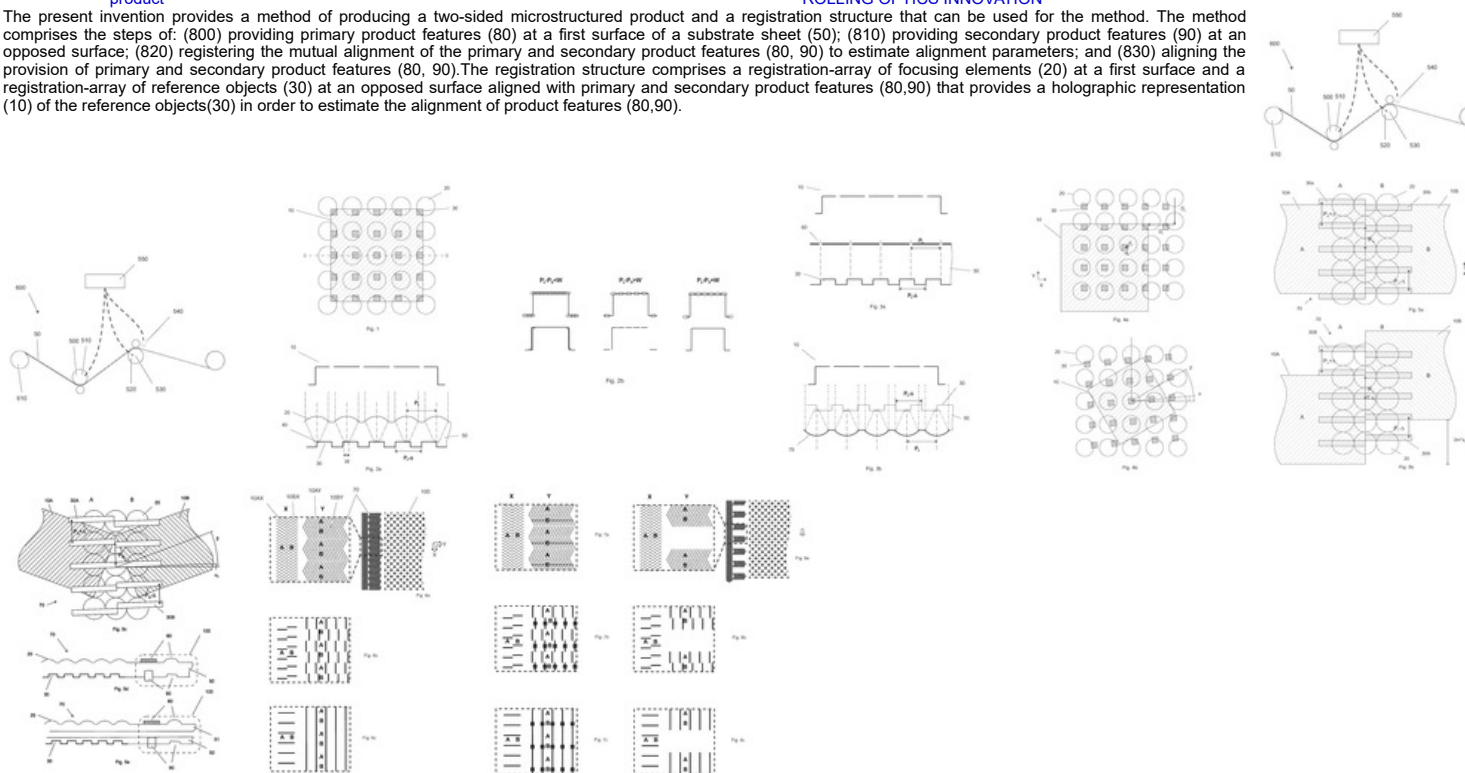
PROBLEM TO BE SOLVED: To provide a display device in which a capacitor formed by a translucent conductive film is displayed because of light being transmitted.**SOLUTION:** A display device includes a plurality of pixels. The pixel has a first pixel **circuit** and a second pixel **circuit**. The first pixel **circuit** has a first display element and a first capacitor element. The second pixel **circuit** has a second display element and a second capacitor element. The first display element has a reflective electrode, and the first capacitor element performs a display by reflecting an external light on the reflective electrode. The reflective electrode has an opening region. Light emitted from the second display element transmits the first capacitor element, and passes through the opening region, and performs the display.**SELECTED DRAWING:** Figure 1



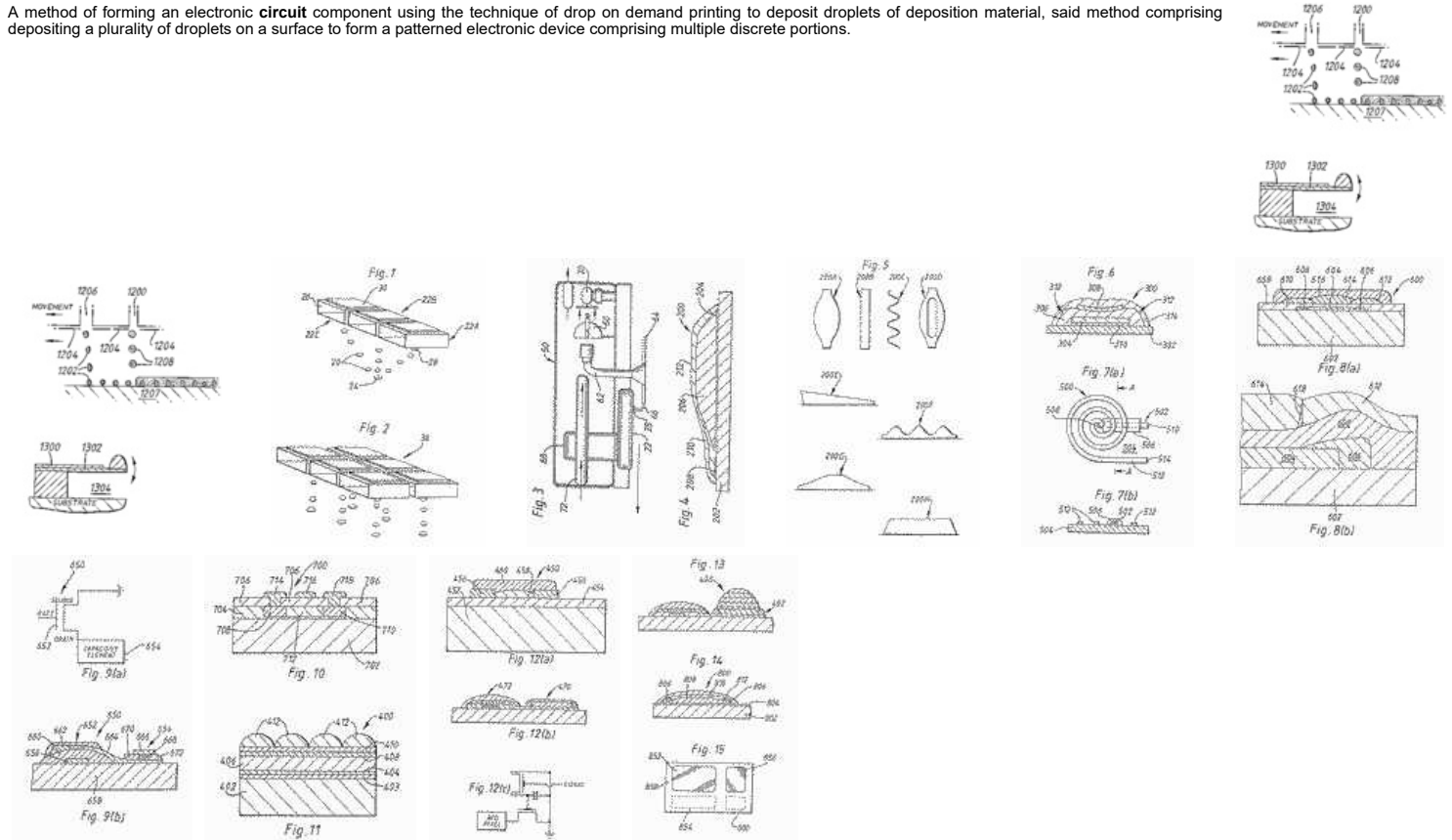
Transparent electrical conductors comprising regions of high transparency and regions of lower transparency, but higher conductivity. This allows electrical connection through the conductor, while retaining its transparency for such applications as hand-held device display screens or transparent antennas, for example.



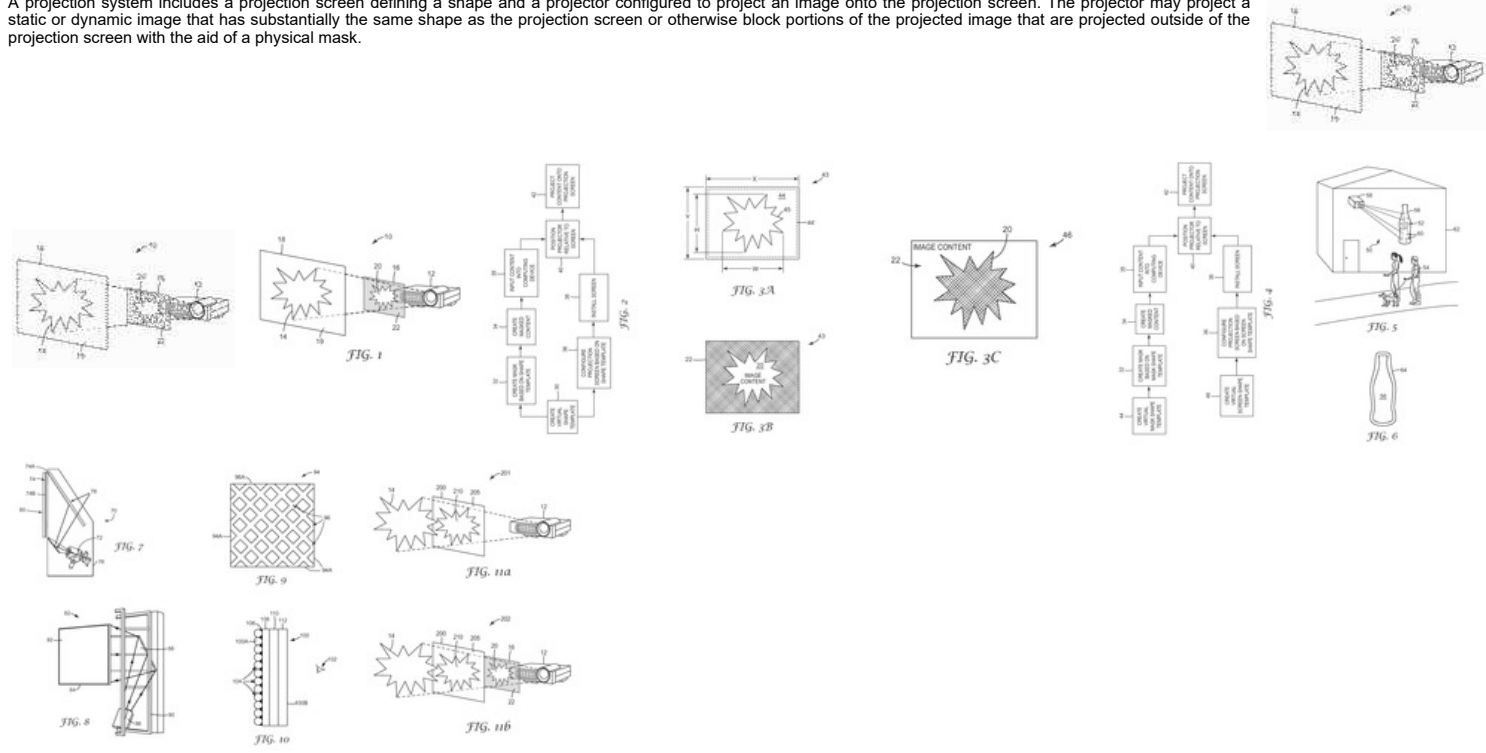
The present invention provides a method of producing a two-sided microstructured product and a registration structure that can be used for the method. The method comprises the steps of: (800) providing primary product features (80) at a first surface of a substrate sheet (50); (810) providing secondary product features (90) at an opposed surface; (820) registering the mutual alignment of the primary and secondary product features (80, 90) to estimate alignment parameters; and (830) aligning the provision of primary and secondary product features (80, 90). The registration structure comprises a registration-array of focusing elements (20) at a first surface and a registration-array of reference objects (30) at an opposed surface aligned with primary and secondary product features (80, 90) that provides a holographic representation (10) of the reference objects (30) in order to estimate the alignment of product features (80, 90).



A method of forming an electronic **circuit** component using the technique of drop on demand printing to deposit droplets of deposition material, said method comprising depositing a plurality of droplets on a surface to form a patterned electronic device comprising multiple discrete portions.

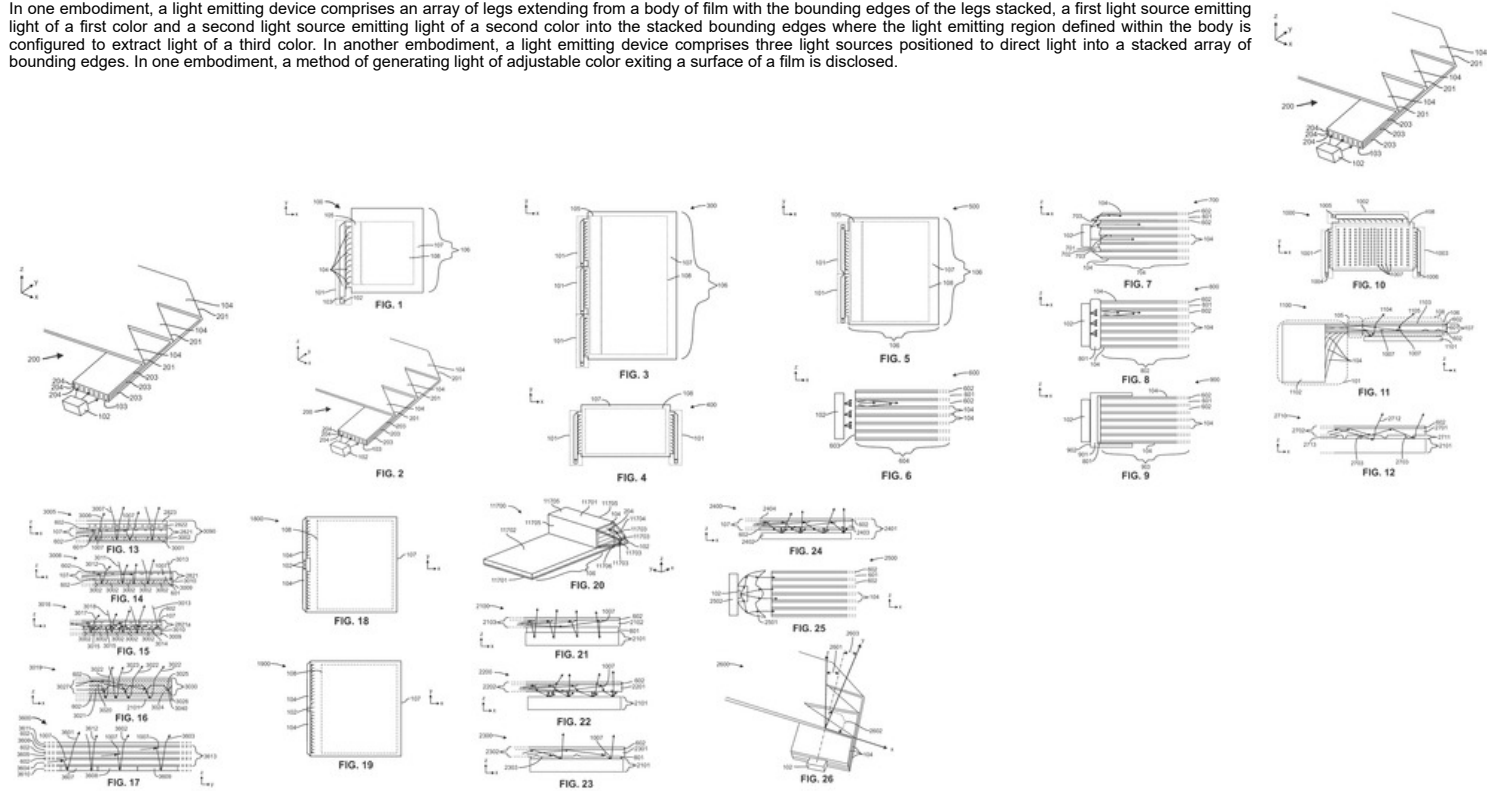


A projection system includes a projection screen defining a shape and a projector configured to project an image onto the projection screen. The projector may project a static or dynamic image that has substantially the same shape as the projection screen or otherwise block portions of the projected image that are projected outside of the projection screen with the aid of a physical mask.



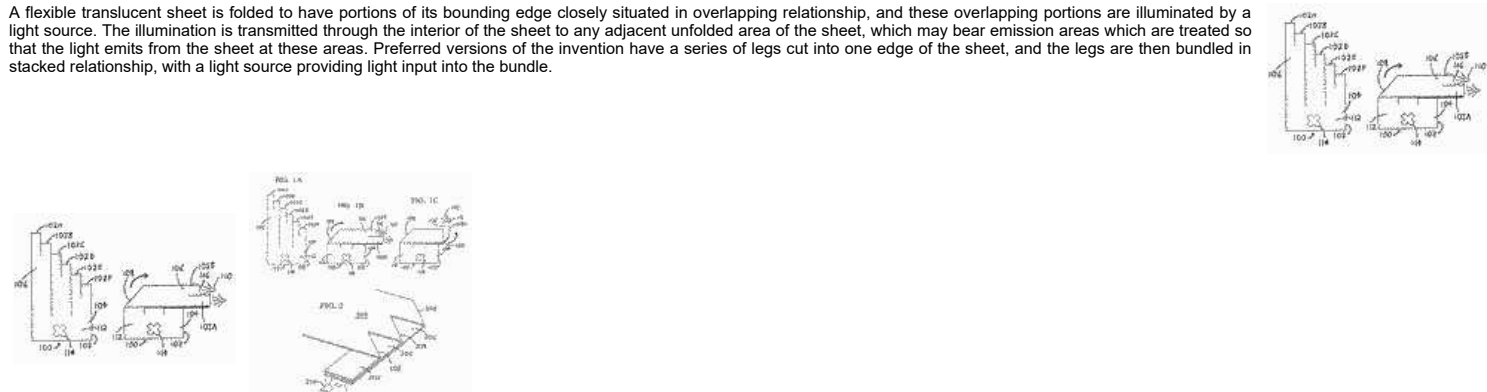
98. Light emitting device with light mixing within a film US20130250618 2013-05-06 FLEX LIGHTING II* 2013-09-26 2013-09-26

In one embodiment, a light emitting device comprises an array of legs extending from a body of film with the bounding edges of the legs stacked, a first light source emitting light of a first color and a second light source emitting light of a second color into the stacked bounding edges where the light emitting region defined within the body is configured to extract light of a third color. In another embodiment, a light emitting device comprises three light sources positioned to direct light into a stacked array of bounding edges. In one embodiment, a method of generating light of adjustable color exiting a surface of a film is disclosed.



99. Light coupling into illuminated films WO2009048863 2008-10-07 FLEX LIGHTING II* 2009-04-16 2009-04-16

A flexible translucent sheet is folded to have portions of its bounding edge closely situated in overlapping relationship, and these overlapping portions are illuminated by a light source. The illumination is transmitted through the interior of the sheet to any adjacent unfolded area of the sheet, which may bear emission areas which are treated so that the light emits from the sheet at these areas. Preferred versions of the invention have a series of legs cut into one edge of the sheet, and the legs are then bundled in stacked relationship, with a light source providing light input into the bundle.



100. Glare-proof mirror device for vehicle JP2000062533 1998-08-19 TOYOTA MOTOR* 2000-02-29 2000-02-29

PROBLEM TO BE SOLVED: To provide a glare-proof mirror device for a vehicle that can disuse a forward light detecting sensor with a detecting face facing the front of the vehicle. SOLUTION: A glare-proof mirror device for a vehicle has a mode selecting device 2 for switching a rearview mirror 11 in a glare proof mode and a non- glare-proof mode. The mode selecting device 2 has a backward light detecting sensor 20 mounted to the mirror 11 and having a light detecting face facing the rear of the vehicle; a first night judging means for judging environment around the vehicle to be night when the change frequency of light intensity exceeding the threshold value for change frequency, is large within the specified time by the backward light detecting sensor 20; and a glare proof mode judging means for judging whether the intensity of incident light to the mirror 11 within the specified time exceeds the glare-proof threshold value and judging whether to select the glare-proof mode or non-glare-proof mode according to judgment. Judgment by the night judging means and judgment by the glare proof mode judging means are both based on signals from the backward light detecting sensor 20.

