Results **1-100** of **47** for Criteria:**FP:(Dubs Balzers)** Office(s):**all** Language:**EN** Stemming: **true**

Title	Ctr	PubDate
Int.Class	Appl.No	Applicant	Inventor

1. 10201400525U METHOD OF INLINE MANUFACTURING A SOLAR CELL PANEL SG 29.05.2014

10201400525U OC Oerlikon Balzers AG VOSER, STEPHAN

21 ABSTRACT METHOD OF INLINE MANUFACTURING A SOLAR CELL PANEL Throughput of manufacturing thin-film solar panels by inline technique is made substantially independent from the time extent of different surface treatment steps by accordingly subdividing treatment steps in sub-steps performed in inline subsequent treatment stations. Treatment duration in each of the subsequent treatment stations is equal ( ). т Fig. 3

2. WO/2014/033058 PATTERNED CONDUCTOR TOUCH SCREEN WO 06.03.2014

G06F 3/041 PCT/EP2013/067516 OERLIKON ADVANCED TECHNOLOGIES AG RATTUNDE, Oliver

The invention refers to a touch screen and a method to manufacture a touch screen having a substrate and a patterned transparent conductor layer wherein the color difference between substrate areas with and without coverage by the transparent conductor layer with respect to both reflectance and transmittance is reduced by: • an intermediate layer stack (IL) disposed between the substrate and the transparent conductor layer, • wherein the intermediate layer stack comprises a plurality of at least two alternating high refractive index and low refractive index materials. In a second embodiment of the invention a touch screen and a method to manufacture a touch screen is claimed wherein a capping layer (CL) is situated on top of the patterned transparent conductor layer and the intermediate layer (IL) where it is not covered by the patterned transparent conductor layer.

3. 20130180850 MAGNETRON SPUTTERING APPARATUS US 18.07.2013

C23C 14/35 13808956 Rohrmann Hartmut Rohrmann Hartmut

A magnetron sputtering apparatus comprises, within a vacuum chamber (**1**), a substrate support (**2**) holding a substrate (**3**) with an upward-facing plane substrate surface (**4**) which is to be coated. The substrate (**3**) may be a disk of, e.g., 200 mm diameter. At a distance from a centre plane (**5**) two oblong targets (*7a, 7b*) are symmetrically arranged which are inclined towards the centre plane (**5**) so as to enclose an acute angle (β; −β) of between 8° and 35° with the plane defined by the substrate surface (**4**). Above the substrate surface (**4**) a collimator (**13**) with equidistant rectangular collimator plates is arranged. With this configuration high uniformity of the coating is achievable, in particular, if the distance of the collimator (**13**) from the substrate surface (**4**) is chosen as a multiple n of the extension of the collimator (**13**) perpendicular to the said surface, preferably with n equalling 1 or 2, for suppressing ripple.

4. 2591491 MAGNETRON SPUTTERING APPARATUS EP 15.05.2013

H01J 37/34 11735989 OC OERLIKON BALZERS AG ROHRMANN HARTMUT

A magnetron sputtering apparatus comprises, within a vacuum chamber (1), a substrate support (2) holding a substrate (3) with an upward- facing plane substrate surface (4) which is to be coated. The substrate (3) may be a disk of, e.g., 200mm diameter. At a distance from a centre plane (5) two oblong targets (7a, 7b) are symmetrically arranged which are inclined towards the centre plane (5) so as to enclose an acute angle (β; -β) of between 8° and 35° with the plane defined by the substrate surface (4). Above the substrate surface (4) a collimator (13) with equidistant rectangular collimator plates is arranged. With this configuration high uniformity of the coating is achievable, in particular, if the distance of the collimator (13) from the substrate surface (4) is chosen as a multiple n of the extension of the collimator (13) perpendicular to the said surface, preferably with n equalling 1 or 2, for suppressing ripple.

5. 2463401 Apparatus for manufacturing a directional layer by means of cathodic sputtering and its use EP 13.06.2012

C23C 14/34 12001531 OC OERLIKON BALZERS AG ROHRMANN HARTMUT

Zur Herstellung einer gerichteten Schicht mit z.B. konstanter ausgezeichneter Richtung, etwa einer weichmagnetischen Schicht mit bevorzugter Magnetisierungsrichtung oder einer Trägerschicht für eine solche mittels Kathodenzerstäubung auf einer Substratfläche (4) wird die Beschichtung so vorgenommen, dass von einer Targetfläche (6) stammende Partikel überwiegend aus Richtungen einfallen, bei denen die Projektion auf die Substratfläche (4) in einem die ausgezeichnete Richtung umgebenden bevorzugten Winkelbereich liegt. Dies wird durch Anordnung eines Kollimators (8) mit zur Substratfläche (4) normalen, zur ausgezeichneten Richtung parallelen Platten (9) vor der Substratfläche (4) erreicht, bei dem die Länge der Platten (9) von der Mitte des Kollimators (8) gegen äussere Ränder hin abnimmt.

6. WO/2012/003994 MAGNETRON SPUTTERING APPARATUS WO 12.01.2012

H01J 37/34 PCT/EP2011/003413 OC OERLIKON BALZERS AG ROHRMANN, Hartmut

A magnetron sputtering apparatus comprises, within a vacuum chamber (1), a substrate support (2) holding a substrate (3) with an upward- facing plane substrate surface (4) which is to be coated. The substrate (3) may be a disk of, e.g., 200mm diameter. At a distance from a centre plane (5) two oblong targets (7a, 7b) are symmetrically arranged which are inclined towards the centre plane (5) so as to enclose an acute angle (β; -β) of between 8° and 35° with the plane defined by the substrate surface (4). Above the substrate surface (4) a collimator (13) with equidistant rectangular collimator plates is arranged. With this configuration high uniformity of the coating is achievable, in particular, if the distance of the collimator (13) from the substrate surface (4) is chosen as a multiple n of the extension of the collimator (13)

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perpendicular to the said surface, preferably with n equalling 1 or 2, for suppressing ripple.

7. 174189 METHOD OF INLINE MANUFACTURING A SOLAR CELL PANEL SG 28.10.2011

2011062809 OC OERLIKON BALZERS AG VOSER, STEPHAN

Throughput of manufacturing thin-film solar panels by inline technique is made substantially independent from the time extent of different surface treatment steps by accordingly subdividing treatment steps in sub-steps performed in inline subsequent treatment stations. Treatment duration in each of the subsequent treatment stations is equal (τ).

8. WO/2010/125002 REACTIVE SPUTTERING WITH MULTIPLE SPUTTER SOURCES WO 04.11.2010

C23C 14/35 PCT/EP2010/055453 OC OERLIKON BALZERS AG DUBS, Martin

The apparatus (1) for coating a substrate (14) by reactive sputtering comprises an axis (8), at least two targets (11, 12) in an arrangement symmetrically to said axis (8) and a power supply connected to the targets (11, 12), wherein the targets are alternatively operable as cathode and anode. The method is a method for manufacturing a coated substrate (14) by coating a substrate (14) by reactive sputtering in an apparatus (1) comprising an axis (8). The method comprises a) providing a substrate (14) to be coated; b) providing at least two targets (11, 12) in an arrangement symmetrically to said axis (8); c) alternatively operating said targets (11, 12) as cathode and anode during coating. Preferably, the targets (11, 12) are rotated during sputtering and/or the targets are arranged concentrically, with an innermost circular target surrounded by at least one ring-shaped outer target.

9. WO/2010/106012 METHOD OF INLINE MANUFACTURING A SOLAR CELL PANEL WO 23.09.2010

H01L 31/18 PCT/EP2010/053273 OC OERLIKON BALZERS AG VOSER, Stephan

Throughput of manufacturing thin-film solar panels by inline technique is made substantially independent from the time extent of different surface treatment steps by accordingly subdividing treatment steps in sub-steps performed in inline subsequent treatment stations. Treatment duration in each of the subsequent treatment stations is equal (τ).

10. 101627146 Method for the production of a directional layer by means of cathode sputtering, and a device for carrying out the method CN 13.01.2010

C23C 14/34 200780049142.5 Oc Oerlikon Balzers AG Rohrmann Hartmut

For producing a directional layer with, for example, a constant, labeled direction, such as a soft magnetic layer with a preferred direction of magnetization or a backing layer for such a one by means of cathode sputtering on a substrate surface (4), the coating is produced in such a way that particles originating from a target surface (6) are incident predominantly from directions for which the projection onto the substrate surface (4) lies in a preferred angular sector surrounding the labeled direction. This is achieved, for example, by an arrangement of a collimator (8) with plates (9) which are perpendicular to the substrate surface (4) and parallel to the labeled direction, in front of the substrate surface (4). However, instead of the preceding or in addition thereto, the position or movement of the substrate surface (4) with respect to the target surface (6) can also be adjusted or controlled appropriately.

11. 2106457 METHOD FOR THE PRODUCTION OF A DIRECTIONAL LAYER BY MEANS OF CATHODE SPUTTERING, AND A DEVICE FOR CARRYING OUT THE METHOD EP 07.10.2009

C23C 14/34 07845644 OC OERLIKON BALZERS AG ROHRMANN HARTMUT

For producing a directional layer with, for example, a constant, labeled direction, such as a soft magnetic layer with a preferred direction of magnetization or a backing layer for such a one by means of cathode sputtering on a substrate surface (4), the coating is produced in such a way that particles originating from a target surface (6) are incident predominantly from directions for which the projection onto the substrate surface (4) lies in a preferred angular sector surrounding the labeled direction. This is achieved, for example, by an arrangement of a collimator (8) with plates (9) which are perpendicular to the substrate surface (4) and parallel to the labeled direction, in front of the substrate surface (4). However, instead of the preceding or in addition thereto, the position or movement of the substrate surface (4) with respect to the target surface (6) can also be adjusted or controlled appropriately.

12. 1020090096617 METHOD FOR THE PRODUCTION OF A DIRECTIONAL LAYER BY MEANS OF CATHODE SPUTTERING, AND A DEVICE FOR CARRYING OUT THE METHOD KR 11.09.2009

C23C 14/34 1020097013819 OC OERLIKON BALZERS AG ROHRMANN HARTMUT

For producing a directional layer with, for example, a constant, labeled direction, such as a soft magnetic layer with a preferred direction of magnetization or a backing layer for such a one by means of cathode sputtering on a substrate surface (4), the coating is produced in such a way that particles originating from a target surface (6) are incident predominantly from directions for which the projection onto the substrate surface (4) lies in a preferred angular sector surrounding the labeled direction. This is achieved, for example, by an arrangement of a collimator (8) with plates (9) which are perpendicular to the substrate surface (4) and parallel to the labeled direction, in front of the substrate surface (4). However, instead of the preceding or in addition thereto, the position or movement of the substrate surface (4) with respect to the target surface (6) can also be adjusted or controlled appropriately.

13. WO/2008/080244 METHOD FOR THE PRODUCTION OF A DIRECTIONAL LAYER BY MEANS OF CATHODE SPUTTERING, AND A DEVICE FOR CARRYING OUT THE METHOD WO 10.07.2008

C23C 14/34 PCT/CH2007/000647 OC OERLIKON BALZERS AG ROHRMANN, Hartmut

For producing a directional layer with, for example, a constant, labeled direction, such as a soft magnetic layer with a preferred direction of magnetization or a backing layer for such a one by means of cathode sputtering on a substrate surface (4), the coating is produced in such a way that particles originating from a target surface (6) are incident predominantly from directions for which the projection onto the substrate surface (4) lies in a preferred angular sector surrounding the labeled direction. This is achieved, for example, by an arrangement of a collimator (8) with plates (9) which are perpendicular to the substrate surface (4) and parallel to the labeled direction, in front of the substrate surface (4). However, instead of the preceding or in addition thereto, the position or movement of the substrate surface (4) with respect to the target surface (6) can also be adjusted or controlled appropriately.

14. 20070224385 WAVELENGTH SELECTIVE DIELECTRIC FILTER AND ITS APPLICATION TO OPTICAL DISKS US 27.09.2007

B32B 3/02 11753083 OC OERLIKON BALZERS AG Dubs Martin

An optical storage medium having at least two information layers is provided, wherein a first information layer is in the form of a dichroic filter that is reflective at a first selected wavelength and transmissive at a second selected wavelength. The dichroic filter can consist of a single, non-metallic dielectric layer, such as a hydrogen-

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doped silicon layer. Total thickness of the dichroic filter is about or less than 100 nm. A second information layer that is reflective at the second wavelength is disposed behind and spaced from the dichroic filter. This construction permits a first incident light beam at the first wavelength to be reflected from the dichroic filter, to produce a first reflected beam carrying information recorded in that layer. A second incident light beam at the second wavelength can be transmitted through the dichroic filter and reflected from the second information layer to produce a second reflected beam that passes through the dichroic filter, carrying information recorded in the second information layer.

15. 20070007357 WAVELENGTH-SELECTIVE METAL DIELECTRIC FILTER AND ITS APPLICATION TO OPTICAL DISCS US 11.01.2007

G06K 19/00 | 11456131 | OC OERLIKON BALZERS AG | Dubs Martin

An optical storage medium having at least two information layers is provided, wherein a first information layer is in the form of a dichroic filter that is reflective at a first selected wavelength and transmissive at a second selected wavelength. The dichroic filter has a laminate structure that includes at least a metallic layer and a dielectric layer, wherein the total thickness of the dichroic filter is about or less than 100 nm. A second information layer that is reflective at the second wavelength is disposed behind and spaced from the dichroic filter. This construction permits a first incident light beam at the first wavelength to be reflected from the dichroic filter, to produce a first reflected beam carrying information recorded in that layer. A second incident light beam at the second wavelength can be transmitted through the dichroic filter and reflected from the second information layer to produce a second reflected beam that passes through the dichroic filter, carrying information recorded in the second information layer.

16. WO/2006/002561 METHOD FOR THE PRODUCTION OF MULTILAYER DISCS WO 12.01.2006

G11B 7/26 | PCT/CH2005/000358 | OC OERLIKON BALZERS AG | DUBS, Martin

A method for manufacturing an optical disc substrate comprises a first substrate (10) with at least one structured surface, on which an anti-adhesive layer (11), preferably carbon, is deposited and first layer (12) on top of said anti-adhesive layer (11). On a second substrate (13) with a structured surface also a layer (14) is deposited. Both substrates (10, 13) are bonded together with the layers (12, 14) facing each other. The separation now easily can take place afterwards alongside the adhesive layer (5). This way the first layer (12) from the first substrate (10) is being transferred to the second substrate (13).

17. 20060003476 Method for the production of multilayer discs US 05.01.2006

H01L 21/00 | 11167952 | OC Oerlikon Balzers AG | Dubs Martin

A Method for manufacturing an optical disc substrate comprises a first substrate with at least one structured surface, on which an anti-adhesive layer, preferably carbon, is deposited and first layer on top of said anti-adhesive layer. On a second substrate with a structured surface also a layer is deposited. Both substrates are bonded together with the layers facing each other. The separation now easily can take place afterwards alongside the adhesive layer. This way the first layer from the first substrate is being transferred to the second substrate.

18. 2237676 FUENTE DE PULVERIZACION DE MAGNETRON. ES 01.08.2005

G11B 7/26 | E02727150 | UNAXIS BALZERS AKTIENGESELLSCHAFT | HEINZ, BERND

Fuente de pulverización de magnetrón con un cuerpo de blanco redondo (1) cuya cara frontal presenta una superficie de pulverización (20, 21), con un sistema magnético (2, 3, 4, 5, 10, 11) que contiene un polo interior (4) y un polo exterior (3) que lo rodea a modo de anillo, de manera que se configura un campo magnético (B) a lo largo de la superficie de pulverización (20, 21) en forma de un bucle cerrado a modo de túnel alrededor del eje central de la fuente (6) alojándose al menos una parte del sistema magnético (2, 3, 4, 5, 10, 11) de forma rotatoria alrededor del eje de la fuente (6) que está unida en su accionamiento a este medio de accionamiento (30), caracterizada porque el polo exterior anular (3) no se encuentra al mismo nivel que el polo interior (4) y se eleva en la zona marginal del cuerpo redondo del blanco (1) y porque la parte rotatoria del sistema magnético recoge el polo interior (4) dispuesto excéntricamente con respecto al eje (6), así como una segunda parte del polo exterior (11) que se encuentra entre el polo exterior (3) y el polo interior (4), de modo que en la rotación el bucle de túnel del campo magnético (B) pasa rozando excéntricamente por encima de la superficie de pulverización (20, 21).

19. 6899795 Sputter chamber as well as vacuum transport chamber and vacuum handling apparatus with such chambers US 31.05.2005

C23C 14/34 | 09484421 | Unaxis Balzers Aktiengesellschaft | Dubs Martin

A sputtering chamber system and method uses at least one sputtering source with a new sputter surface at least approximately symmetrical with respect to a central axis. A substrate carrier is arranged to be drivingly rotatable about a substrate carrier axis. The central axis and the substrate carrier axis are oblique with respect to one another, and the sputtering source is a magnetron sputtering source. The new sputter surface is substantially rotationally symmetrical with respect to the central axis, with the central axis and the substrate carrier axis intersecting at least approximately. With respect to an angle β between the central axis and the substrate carrier axis, [in-line-formulae]30°≦β≦60°,[/in-line-formulae] preferably [in-line-formulae]40°≦β≦55°,[/in-line-formulae] particularly preferably [in-line-formulae]43°≦β≦50°,[/in-line-formulae] particularly [in-line-formulae]β≈45°.[/in-line-formulae]

20. 20050016843 Sputter chamber as well as vacuum transport chamber and vacuum handling apparatus with such chambers US 27.01.2005

C23C 16/00 | 10919273 | Unaxis Balzers Aktiengesellschaft | Dubs Martin

A Vacuum transport chamber for disk-shaped substrates, has a base plate structure has an interior surface which borders an interior of the chamber on one side thereof. A covering structure is situated parallel and opposite an interior surface of the base plate structure. The structure has at least two substrate passage openings which are adapted to a substrate disk surface. A transport device which is rotationally drivingly movable about a rotation axis perpendicular to the base plate structure. At least one substrate receiving device is brought into alignment with a respective one of the openings. A controlled sealing arrangement establishes an edge of at least one of the openings with the substrate holding device brought into alignment therewith and a substrate provided thereon.

21. 20040149565 Method for manufacturing a workpiece using a magnetron sputter source US 05.08.2004

C23C 14/35 | 10703217 | Unaxis Balzers Limited | Heinz Bernd

Title			Ctr	PubDate
Int.Class	Appl.No	Applicant	Inventor	

A workpiece is manufactured using a magnetron source that has an optimized yield of sputtered-off material as well as service life of the target. Good distribution values of the layer on the workpiece are obtained that are stable over the entire target service life, and a concave sputter face in a configuration with small target-to-workpiece distance is combined with a magnet system to form the magnetron electron trap in which the outer pole of the magnetron electron trap is stationary and an eccentrically disposed inner pole with a second outer pole part is rotatable about the central source axis.

22. 1516888 Magnetron atomisation source CN 28.07.2004

H01J 37/34 ? 02811915.0 Unaxis Balzers AG B. Heinz

In order to optimize the efficiency on the sputtered material and the target-lifetime of a magnetron-source, at the same time to attain good distribution-values of the layer on a substrate and keep stable through the whole target-life-time, a concave sputtering-face 20 in an arrangement with small target-substrate distance d is combined with a magnet-system to form the magnetron-electrons-falls, in which the outer-pole 3 of the magnetron-electrons-falls is stationary arranged and an eccentrically arranged inner-pole 4 with a 2nd outer-pole-part 11 is formed rotatably around the central source-axis 6.

23. 1399945 MAGNETRON ATOMISATION SOURCE EP 24.03.2004

H01J 37/34 ? 02727150 UNAXIS BALZERS AG HEINZ BERND

In order to optimise the yield of atomised material and the working life of the target in a magnetron source, with concomitant good achievable distribution values for the layer on the substrate, stable over the whole working life of the target, a concave atomisation surface (20) on an arrangement with reduced target-substrate separation (d) is combined with a magnet system for formation of the magnetron electron discharge, in which the outer pole (3) of the magnetron electron discharge is stationary and an eccentrically arranged inner pole (4) is embodied such as to be able to rotate about the central source axis (6) with a second outer pole piece (11).

24. 20030136671 Magnetron sputter source US 24.07.2003

C23C 14/35 ? 10161862 Unaxis Balzers Limited Heinz, Bernd

To optimize the yield of sputtered-off material as well as the service life of the target on a magnetron source, in which simultaneously good attainable distribution values of the layer on the substrate, stable over the entire target service life, a concave sputter face**20**in a configuration with small target-substrate distance d is combined with a magnet system to form the magnetron electron trap in which the outer pole**3**of the magnetron electron trap is disposed stationarily and an eccentrically disposed inner pole**4**with a second outer pole part**11**is developed rotatable about the central source axis**6.**

25. 20030075434 Storage plate support for receiving disk-shaped storage plates US 24.04.2003

C23C 16/00 ? 10263157 Unaxis Balzers Limited Voser, Stephan

To generate an especially good heat transfer between a seating face of a storage plate support and a storage plate, during coating with a sputter source in a vacuum installation, the seating face of the storage plate support is slightly annularly convexly arched and the storage plate is clamped in the center as well as on its outer margin by a center mask and an outer mask against the arched seating face. Hereby an especially good heat transfer is attained with very low arching d, whereby the storage plate is treated gently and simultaneously, during the coating process, no layer thickness distribution problems occur through arching that is too large.

26. WO/2002/101785 MAGNETRON ATOMISATION SOURCE WO 19.12.2002

H01J 37/34 ? PCT/CH2002/000285 UNAXIS BALZERS AG HEINZ, Bernd

In order to optimise the yield of atomised material and the working life of the target in a magnetron source, with concomitant good achievable distribution values for the layer on the substrate, stable over the whole working life of the target, a concave atomisation surface (20) on an arrangement with reduced target-substrate separation (d) is combined with a magnet system for formation of the magnetron electron discharge, in which the outer pole (3) of the magnetron electron discharge is stationary and an eccentrically arranged inner pole (4) is embodied such as to be able to rotate about the central source axis (6) with a second outer pole piece (11).

27. 20020162737 Magnetron sputter source with multipart target US 07.11.2002

C23C 14/35 ? 10134915 Unaxis Balzers Limited Dubs, Martin

A device and method has a magnetron sputter source with a multipart target (**3, 4**) and movable magnet system (**5**). By variation of the power delivery of the power supply (**6**), specific areas of the multipart target (**3, 4**) can be preferably affected, which permits setting the stoichiometry of the sputtered-off target materials on the substrate (**15**) to be covered and positively affecting the homogeneity of the layer structure.

28. 1254970 Magnetron sputter source having mosaic target EP 06.11.2002

C23C 14/35 ? 02007878 UNAXIS BALZERS AG DUBS MARTIN

Die Erfindung betrifft Vorrichtung und Verfahren zu einer Magnettronsputterquelle mit mehrteiligem Target (3, 4) und beweglichem Magnetsystem (5). Durch Variation der Leistungsabgabe der Stromversorgung (6) lassen sich bestimmte Bereiche des mehrteiligen Targets (3, 4) bevorzugt beeinflussen, was es erlaubt, die Stöchiometrie der abgesputterten Targetmaterialien auf dem zu belegenden Substrat (15) einzustellen und die Homogenität des Schichtaufbaus positiv zu beeinflussen.

29. 1250471 SPUTTER CHAMBER AND VACUUM TRANSPORT CHAMBER AND VACUUM TREATMENT INSTALLATIONS WITH CHAMBERS OF THIS TYPE EP 23.10.2002

C23C 14/56 ? 01900067 UNAXIS BALZERS AG DUBS MARTIN

A substrate support (5) is mounted in a sputter chamber in such a way that said support can be driven in rotation about an axis (A). A magnetron source is mounted in the sputter chamber with a central axis (Z) inclined ($g(b)) towards the axis of rotation of the substrate support (5).

Int.Class	Appl.No	Applicant	Title / Inventor	Ctr	PubDate

30. 20020142099 Method for producing a hybrid disk and hybrid disks US 03.10.2002

B05D 1/36 ? 10037190 Unaxis Balzers Aktiengesellschaft Dubs, Martin

Method for producing hybrid disks has a first substrate that is transparent in a given spectral band. A layer system that is semi-transparent in the given band succeeds the first substrate and is followed by a further substrate that is transparent in the given band. Next, is a reflection layer system which is in the semi-transparent layer system and is deposited by a vacuum coating method of identical type. The first substrate is covered by a moisture protection layer system that is transparent in the given spectral band and has at least one layer deposited by a vacuum coating method of identical type.

31. 2002257480 Magnetron atomisation source AU 22.08.2002

C23C 14/35 ? 2002257480 UNAXIS BALZERS AG Dubs, Martin

In order to optimise the yield of atomised material and the working life of the target in a magnetron source, with concomitant good achievable distribution values for the layer on the substrate, stable over the whole working life of the target, a concave atomisation surface (20) on an arrangement with reduced target-substrate separation (d) is combined with a magnet system for formation of the magnetron electron discharge, in which the outer pole (3) of the magnetron electron discharge is stationary and an eccentrically arranged inner pole (4) is embodied such as to be able to rotate about the central source axis (6) with a second outer pole piece (11).

32. 20020054973 Optical data storage disk US 09.05.2002

B05D 5/06 ? 09994297 Unaxis Balzers Aktiengesellschaft Weinzerl, Helfried

A sputtering target made of $Ag_xMa_yMb_z$or $Cu_xMa_yMb_z$, where x>50 at % and Ag or Cu are a first metal, Ma is a second metal and Mb is a third metal is used in a method for manufacturing data storage disks. The method of manufacture includes providing a substrate, providing a spacer layer of a material transmitting light of a selected wavelength onto a surface of the substrate, applying a first layer of a first metal alloy between the substrate and spacer layer, providing a second layer of a second metal alloy on the spacer layer, and depositing the first and second metal alloys so that one of the first and second layers is semi-transparent with respect to the light. The first and second alloys have at least one common metal provided in particular fractions of the alloys.

33. 6351446 Optical data storage disk US 26.02.2002

G11B 7/24 ? 09190538 Unaxis Balzers Aktiengesellschaft Weinzerl, Helfried

An optical data storage disk has a disk surface and a thickness and includes, in a direction from the disk surface and toward the thickness, at least two spaced-apart interfaces which are each embossed with stored information. An innermost one of the interfaces from the disk surface has a first layer which is reflective for light of a selected wavelength and at an incident angle <90°. The other has a second layer which is partially reflective and partially transmitting for light of the same selected wavelength and incident angle. All remaining material of the disk in the thickness from the disk surface to the innermost interface, substantially transmits light of the selected wavelength. The first and second layers are made of $Ag_xMa_yMb_z$or $Cu_xMa_yMb_z$, where x>50 at % and Ag or Cu are a first metal, Ma is a second metal and Mb is a third metal.

34. 1180262 METHOD FOR PRODUCING A HYBRID DISK, AND HYBRID DISK EP 20.02.2002

C23C 14/34 ? 00920313 UNAXIS BALZERS AG DUBS MARTIN

A semi-permeable layer system (2) is inserted behind a first substrate (1) which is transparent in a given spectral band. A further substrate (5) which is transparent in the above-mentioned band is placed therebehind. A reflecting layer system (6) follows. A moisture-proof system (10) is provided on top of the first substrate which is also transparent in the above-mentioned spectral band. The semi-permeable layer system, reflecting layer system and anti-moisture system are deposited by means of a vacuum coating method of the same type.

35. 1020020000639 METHOD FOR PRODUCING A HYBRID DISK, AND HYBRID DISK KR 05.01.2002

G11B 7/26 ? 1020017014254 OC OERLIKON BALZERS AG DUBS MARTIN

A semi-permeable layer system (2) is inserted behind a first substrate (1) which is transparent in a given spectral band. A further substrate (5) which is transparent in the above-mentioned band is placed therebehind. A reflecting layer system (6) follows. A moisture-proof system (10) is provided on top of the first substrate which is also transparent in the above-mentioned spectral band. The semi-permeable layer system, reflecting layer system and anti- moisture system are deposited by means of a vacuum coating method of the same type.

36. 1119848 OPTICAL DATA STORAGE DISK EP 01.08.2001

C22C 5/06 ? 99941355 UNAXIS BALZERS AG WEINZERL HELFRIED

An optical data storage disk has two interfaces in its direction of thickness (d). A reflective layer (L¿1?) is provided on one interface and a partially reflective, partially transmissive layer (L¿0?) is located on the other. The two layers (L¿1?, L¿0?) consist of particular metal alloys containing one or more identical metals. If the alloys contain gold, this only makes up at most 50 atom % of the particular alloy.

37. WO/2001/053561 SPUTTER CHAMBER AND VACUUM TRANSPORT CHAMBER AND VACUUM TREATMENT INSTALLATIONS WITH CHAMBERS OF THIS TYPE WO 26.07.2001

C23C 14/22 ? PCT/CH2001/000020 UNAXIS BALZERS AG DUBS, Martin

A substrate support (5) is mounted in a sputter chamber in such a way that said support can be driven in rotation about an axis (A). A magnetron source is mounted in the sputter chamber with a central axis (Z) inclined (β) towards the axis of rotation of the substrate support (5).

Int.Class	Appl.No	Applicant	Title / Inventor	Ctr	PubDate

38. WO/2000/070606 METHOD FOR PRODUCING A HYBRID DISK, AND HYBRID DISK — WO 23.11.2000

G11B 7/254 | PCT/CH2000/000249 | UNAXIS BALZERS AKTIENGESELLSCHAFT | DUBS, Martin

A semi-permeable layer system (2) is inserted behind a first substrate (1) which is transparent in a given spectral band. A further substrate (5) which is transparent in the above-mentioned band is placed therebehind. A reflecting layer system (6) follows. A moisture-proof system (10) is provided on top of the first substrate which is also transparent in the above-mentioned spectral band. The semi-permeable layer system, reflecting layer system and anti-moisture system are deposited by means of a vacuum coating method of the same type.

39. 6123814 Coating station — US 26.09.2000

C23C 14/34 | 09238060 | Balzers Aktiengesellschaft | Dubs Martin

A coating station has a flat sputter source opposite a workpiece receiving arrangement is configured as a planet arrangement. The rotating axes (A.sub.P) of the planets intersect one another on a rotating axis (A.sub.S) of the sun system on the side facing away from the sputter source. As a result, substrates, particularly optical lenses, can be coated in extremely small batches according to given formulas in an advantageously flexible manner.

40. WO/2000/021079 OPTICAL DATA STORAGE DISK — WO 13.04.2000

G11B 7/24 | PCT/CH1999/000431 | UNAXIS BALZERS AKTIENGESELLSCHAFT | WEINZERL, Helfried

An optical data storage disk has two interfaces in its direction of thickness (d). A reflective layer (L1) is provided on one interface and a partially reflective, partially transmissive layer (L0) is located on the other. The two layers (L1, L0) consist of particular metal alloys containing one or more identical metals. If the alloys contain gold, this only makes up at most 50 atom % of the particular alloy.

41. WO/1999/065023 SPECTRALLY SELECTIVE LAYER AND OPTICAL COMPONENT FOR SAID LAYER — WO 16.12.1999

G11B 7/24 | PCT/CH1999/000233 | UNAXIS TRADING AG | DUBS, Martin

A spectrally selective layer (3) is applied to a polycarbonate layer (1), followed by another polycarbonate layer (5) and a reflection layer (7). Said spectrally selective layer (3) reflects predominantly in the lower range of the spectral range 600 nm to 800 nm, transmitting light predominantly in the upper range, and consists at least mainly of SiGeH.

42. WO/1999/033093 VACUUM TREATMENT INSTALLATION — WO 01.07.1999

H01L 21/687 | PCT/CH1998/000513 | UNAXIS TRADING AG | SCHERTLER, Roman

The invention relates to a vacuum treatment installation which has a vacuum chamber (1) and in which a rotary-driven part (5) is mounted. A gear for said part (5) comprises two transmission-rotation bodies (10, 18) which move as if they were rolling towards each other and which are magnetically drive-coupled (12, 20) with each other. At least one of said transmission-rotation bodies is located inside the vacuum chamber (1).

43. 5911861 Coating station — US 15.06.1999

C23C 14/34 | 08625315 | Balzers Aktiengesellschaft | Dubs Martin

A coating station has a flat sputter source opposite a workpiece receiving arrangement is configured as a planet arrangement. The rotating axes (A.sub.p) of the planets intersect one another on a rotating axis (A.sub.s) of the sun system on the side facing away from the sputter source. As a result, substrates, particularly optical lenses, can be coated in extremely small batches according to given formulas in an advantageously flexible manner.

44. 1283206 STAZIONE DI RIVESTIMENTO — IT 16.04.1998

G02B 1/11 | 101996900503007 | BALZERS HOCHVAKUUM | DUBS MARTIN

45. 5738729 Coating chamber, accompanying substrate carrier, vacuum evaporation and coating method — US 14.04.1998

C23C 14/00 | 08588394 | Balzers Aktiengesellschaft | Dubs Martin

In order to maintain a required minimal variation of angle of incidence (a) of a coating material on a flat substrate (3), it is recommended that the substrate (3) be exposed to the evaporation source (1) clamped in a curved position.

46. WO/1997/018342 COATING PROCESS AND SUITABLE SUBSTRATE HOLDER — WO 22.05.1997

C23C 14/50 | PCT/CH1996/000397 | BALZERS AKTIENGESELLSCHAFT | DUBS, Martin

In order to keep the variation in the angle of incidence (a) of coating material on a planar substrate (3) to a desired minimum, it is proposed that the substrate (3) should be bent into an arc while exposed to the vaporisation source (1).

47. 2732362 Planetary cathodic sputter deposition station for optical or opthalmic lenses — FR 04.10.1996

G02B 1/11 | 9601686 | BALZERS HOCHVAKUUM | DUBS MARTIN

Coating station comprises a satellite device (7) which faces a coating source (3) and which has holders (11) for workpieces centred on the satellite axis (Ap). The source (3) is a planar cathodic sputtering source with its surface centred on the extended solar system axis (As). The satellite device (7) and the source (3) are arranged such that the minimum distance (D1), between the outermost zone of the workpiece w.r.t. the solar system axis (As) and the new surface (5) of the source (3), is greater than the minimum distance (D2) between the innermost workpiece zone and the new surface (5).