

Patente und Patentanmeldungen / Dr. Ralph Domnick / Geschäftsführer Ara-Coatings GmbH & Co. KG

Lfd.-Nr	Titel	Abstract	Details
001	METHOD FOR PRODUCING COATED STEEL COMPONENTS		Publication/Patent Number: EP3132068B1 Publication Date: 2021-10-06 Application Number: EP15780029.3 Filing Date: 2015-04-17 Inventor : Domnick, Ralph Belzner, Mathias Schleichert, Edward Assignee: Magna International Inc. IPC: C23C14/00
002	Method and system for producing coated steel components	A coated steel component is provided. The coated steel component includes a substrate composed of a steel sheet which can be supplied to a hot-forming process. The coated steel component also possesses a non-metallic coating on the basis of silicon, in a layered structure. The layered structure includes three functional layers having the composition SiO _x NyCz, wherein x lies between 30 and 70%, y lies between 0 and 35%, and z lies between 0 and 50%.	Publication/Patent Number: US10648086B2 Publication Date: 2020-05-12 Application Number: US15/302,812 Filing Date: 2015-04-17 Inventor : Domnick, Ralph Belzner, Mathias Schleichert, Edward Assignee: MAGNA INTERNATIONAL INC. IPC: C23C14/10

003	<p>Verfahren zur Herstellung einer TCO-Schicht und Gegenstand mit einer TCO-Beschichtung</p> <p>Title (English): Methods used for making a TCO layer and objects with a TCO coating</p>	<p>Eine transparente, elektrisch leitfähige Oxid-Beschichtung (TCO-Beschichtung), insbesondere Indiumzinnoxid-Beschichtung (ITO-Beschichtung), wird folgendermaßen auf ein Substrat, beispielsweise einen Gegenstand aus Metall oder Glas, aufgebracht:- Ein flächiges, transparentes, flexibles oder starres Trägerobjekt (4) wird bereitgestellt,- auf das Trägerobjekt (4) wird im PVD-Verfahren eine metallische Absorptionsschicht (5), insbesondere Zinnschicht, sowie eine TCO-Schicht (6) aufgebracht,- das Trägerobjekt (4) wird auf einem Substrat (7) platziert,- Material der TCO-Schicht (6) wird durch Laserbestrahlung vom Trägerobjekt (4) auf das Substrat (7) transferiert.</p>	<p>Publication/Patent Number: DE102018109337A1 Publication Date: 2019-10-24 Application Number: DE102018109337 Filing Date: 2018-04-19 Inventor : Domnick, Ralph Assignee: DOMNICK, RALPH IPC: H01B1/08</p>
004	<p>Multicolored logo on smart card modules</p>	<p>In various embodiments, a smart card module is provided. The smart card module may include an electronic circuit in or on a carrier, a smart card module contact layer, which is coupled to the electronic circuit and provides a plurality of smart card module contacts, a mirror layer on the smart card module contact layer, said mirror layer at least partly covering the smart card module contacts, and an optically translucent, electrically conductive oxide layer, which covers the mirror layer. The optically translucent, electrically conductive oxide layer includes a plurality of regions of different layer thicknesses for providing different color components.</p>	<p>Publication/Patent Number: US10223629B2 Publication Date: 2019-03-05 Application Number: US15/726,417 Filing Date: 2017-10-06 Inventor : Spoettl, Thomas Pueschner, Frank Stampka, Peter Belzner, Mathias Domnick, Ralph Weiss, Daniel Assignee: Infineon Technologies AG IPC: G06K19/06</p>
005	<p>NON-METALLIC COATING FOR STEEL SUBSTRATES AND METHOD FOR FORMING THE SAME</p>	<p>A non-metallic coating for a steel substrate or for a coated steel substrate includes a first layer fabricated from at least one of a silicon oxide, a silicon nitride, and a silicon oxynitride, as well as a second layer fabricated from chromium nitride. The second layer has a thickness between 3 nm and 30 nm, and the first layer and the second layer together form a stacked-layer structure having a total thickness of not more than 300 nm.</p>	<p>Publication/Patent Number: US2018044799A1 Publication Date: 2018-02-15 Application Number: US20/161,555 Filing Date: 2016-03-17 Inventor : Womack, Darren Domnick, Ralph Kostka, Oliver Domnick, Ralph Assignee: Magna International Inc. IPC: C23C28/04</p>

006	NON-METALLIC COATING FOR STEEL SUBSTRATES AND METHOD FOR FORMING THE SAME	A non-metallic coating for a steel substrate or for a coated steel substrate includes a first layer fabricated from at least one of a silicon oxide, a silicon nitride, and a silicon oxynitride, as well as a second layer fabricated from chromium nitride. The second layer has a thickness between 3 nm and 30 nm, and the first layer and the second layer together form a stacked-layer structure having a total thickness of not more than 300 nm.	Publication/Patent Number: US20180044799A1 Publication Date: 2018-02-15 Application Number: US15/554,897 Filing Date: 2016-03-17 Inventor : Belzner, Mathias Domnick, Ralph Schleichert, Edward Womack, Darren Assignee: MAGNA INTERNATIONAL INC. IPC: C23C14/06
007	MULTICOLORED LOGO ON SMART CARD MODULES	In various embodiments, a smart card module is provided. The smart card module may include an electronic circuit in or on a carrier, a smart card module contact layer, which is coupled to the electronic circuit and provides a plurality of smart card module contacts, a mirror layer on the smart card module contact layer, said mirror layer at least partly covering the smart card module contacts, and an optically translucent, electrically conductive oxide layer, which covers the mirror layer. The optically translucent, electrically conductive oxide layer includes a plurality of regions of different layer thicknesses for providing different color components.	Publication/Patent Number: US20180101758A1 Publication Date: 2018-04-12 Application Number: US15/726,417 Filing Date: 2017-10-06 Inventor : Spoettl, Thomas Pueschner, Frank Stampka, Peter Belzner, Mathias Domnick, Ralph Weiss, Daniel Assignee: Infineon Technologies AG IPC: G06K19/077

008	Mehrfarbiges Logo auf Chipkartenmodulen Title (English): Multicolor Mark on Chip Card Module	<p>In verschiedenen Ausführungsbeispielen wird ein Chipkartenmodul bereitgestellt, aufweisend: einen elektronischen Schaltkreis in oder auf einem Träger; eine Chipkartenmodul-Kontaktschicht, welche mit dem elektronischen Schaltkreis gekoppelt ist und mehrere Chipkartenmodul-Kontakte bereitstellt; eine die Chipkartenmodul-Kontakte zumindest teilweise bedeckende Spiegelschicht auf der Chipkartenmodul-Kontaktschicht; eine optisch transluzente, elektrisch leitfähige Oxidschicht, welche die Spiegelschicht bedeckt, wobei die optisch transluzente, elektrisch leitfähige Oxidschicht mehrere Bereiche unterschiedlicher Schichtdicke aufweist zum Bereitstellen unterschiedlicher Farbkomponenten.</p>	<p>Publication/Patent Number: DE102016119081A1 Publication Date: 2018-04-12 Application Number: DE102016119081 Filing Date: 2016-10-07 Inventor : Domnick, Ralph Stampka, Peter Belzner, Mathias Weiss, Daniel PÜschner, Frank Spöttl, Thomas Assignee: Infineon Technologies AG IPC: H01L51/52</p>
009	METHOD AND SYSTEM FOR PRODUCING COATED STEEL COMPONENTS	<p>A coated steel component is proposed, wherein a substrate composed of steel sheet can be supplied to a hot-forming process and possesses a non-metallic coating on the basis of silicon, in a layered structure, wherein three functional layers having the composition SiO_xNyC_z are present, wherein x lies between 30 and 70%, y lies between 0 and 35%, and z lies between 0 and 50%.</p>	<p>Publication/Patent Number: EP3132068A4 Publication Date: 2017-05-10 Application Number: EP15780029 Filing Date: 2015-04-17 Inventor : Belzner, Mathias Schleichert, Edward Domnick, Ralph Assignee: Magna International Inc. IPC: C23C14/00</p>
010	Method And System For Producing Coated Steel Components	<p>A coated steel component is provided. The coated steel component includes a substrate composed of a steel sheet which can be supplied to a hot-forming process. The coated steel component also possesses a non-metallic coating on the basis of silicon, in a layered structure. The layered structure includes three functional layers having the composition SiO_xNyC_z, wherein x lies between 30 and 70%, y lies between 0 and 35%, and z lies between 0 and 50%.</p>	<p>Publication/Patent Number: US20170029956A1 Publication Date: 2017-02-02 Application Number: US15/302,812 Filing Date: 2015-04-17 Inventor : Domnick, Ralph Belzner, Mathias Schleichert, Edward Assignee: MAGNA INTERNATIONAL INC. IPC: C23C28/04</p>

011	METHOD AND SYSTEM FOR PRODUCING COATED STEEL COMPONENTS		Publication/Patent Number: EP3132068A1 Publication Date: 2017-02-22 Application Number: EP15780029.3 Filing Date: 2015-04-17 Inventor : Domnick, Ralph Belzner, Mathias Schleichert, Edward Assignee: Magna International Inc. IPC: C23C14/34
012	NICHT-METALLISCHE BESCHICHTUNG FÜR STAHLSUBSTRATE UND VERFAHREN ZUM AUSBILDEN VON DIESER Title (English): The claimant also alleges that, in the United States and Regulation No. 4,	Eine nicht-metallische Beschichtung für ein Stahlsubstrat oder ein beschichtetes Stahlsubstrat enthält eine erste Schicht, die aus Siliziumoxid, Siliziumnitrid und/oder Siliziumoxynitrid erzeugt ist, und eine zweite Schicht, die aus Chromnitrid erzeugt ist. Die zweite Schicht weist eine Dicke zwischen 3 nm und 30 nm auf, und die erste Schicht und die zweite Schicht bilden zusammen einen gestapelten Schichtaufbau mit einer Gesamtdicke von nicht mehr als 300 nm.	Publication/Patent Number: DE112016001220T5 Publication Date: 2017-11-30 Application Number: DE112016001220 Filing Date: 2016-03-17 Inventor : Domnick, Ralph Schleichert, Edward Belzner, Mathias Womack, Darren Assignee: Magna International Inc. IPC: B32B15/04
013	METHOD FOR COATING A SUBSTRATE	A substrate (4), in particular consisting of a non-metallic material is coated as follows: - a coating material (2) is deposited onto a carrier film (3) consisting of polyethylene terephthalate by means of physical vapour deposition, - the carrier film (3) that is provided with the coating material (2) is contacted with a substrate (4) to be coated, - coating material (2) is partially transferred by laser irradiation from the carrier film (3) to the substrate (4), - the carrier film (3) together with the non-transferred material (2) is removed from the substrate (4).	Publication/Patent Number: WO2016055166A3 Publication Date: 2016-06-09 Application Number: EP2015/002001 Filing Date: 2015-10-09 Inventor : Domnick, Ralph Assignee: DOMNICK, RALPH IPC: C23C14/00

014	Beschichtungsfolie, Schichtaufbau, sowie Verfahren zum Beschichten eines Substrats Title (English): Coating film	<p>Ein Substrat (4), insbesondere aus einem nichtmetallischen Werkstoff, wird auf folgende Weise beschichtet: – Auf eine Trägerfolie (3) aus Polyethylenterephthalat wird durch physikalische Gasphasenabscheidung ein Beschichtungsmaterial (2) abgeschieden, – die mit dem Beschichtungsmaterial (2) versehene Trägerfolie (3) wird in Kontakt mit einem zu beschichtenden Substrat (4) gebracht, – durch Laserbestrahlung wird Beschichtungsmaterial (2) partiell von der Trägerfolie (3) auf das Substrat (4) übertragen, – die Trägerfolie (3) samt nicht übertragenem Beschichtungsmaterial (2) wird vom Substrat (4) entfernt.</p> <p>Email Share Note</p>	<p>Publication/Patent Number: DE102014015119A1 Publication Date: 2016-04-14 Application Number: DE102014015119 Filing Date: 2014-10-10 Inventor : Domnick, Ralph Assignee: DOMNICK, RALPH IPC: B41J2/455</p>
015	METHOD FOR COATING A SUBSTRATE	<p>A substrate (4), in particular consisting of a non-metallic material is coated as follows: - a coating material (2) is deposited onto a carrier film (3) consisting of polyethylene terephthalate by means of physical vapour deposition, - the carrier film (3) that is provided with the coating material (2) is contacted with a substrate (4) to be coated, - coating material (2) is partially transferred by laser irradiation from the carrier film (3) to the substrate (4), - the carrier film (3) together with the non-transferred material (2) is removed from the substrate (4).</p>	<p>Publication/Patent Number: WO2016055166A2 Publication Date: 2016-04-14 Application Number: EP2015/002001 Filing Date: 2015-10-09 Inventor : Domnick, Ralph Assignee: DOMNICK, RALPH IPC: C23C14/00</p>
016	Beschichtetes Stahlbauteil, Verfahren zur Herstellung des Stahlbauteils und Herstellungsanlage Title (English): Coated steel component	<p>Es wird ein beschichtetes Stahlbauteil vorgeschlagen, wobei ein Substrat aus Stahlblech einem Warmumformungsprozess zuführbar ist und eine nichtmetallische Beschichtung auf Siliziumbasis in einem Schichtaufbau besitzt, wobei zwei funktionale Schichten vorhanden sind, wobei die erste Schicht eine Schutzschicht aus SiOx oder SiNx oder einer Kombination beider Materialien ist und eine zweite Schicht eine Absorberschicht aus einem Metallnitrid oder -carbid oder aus einem Metall besteht.</p>	<p>Publication/Patent Number: DE102015204803A1 Publication Date: 2016-09-22 Application Number: DE102015204803 Filing Date: 2015-03-17 Inventor : Domnick, Ralph Schleichert, Edward Belzner, Mathias Assignee: Magna International Inc. IPC: C21D9/00</p>

017	Beschichtetes Stahlbauteil, Verfahren zur Herstellung des Stahlbauteils und Herstellungsanlage Title (English): Coated steel component	<p>Es wird ein beschichtetes Stahlbauteil vorgeschlagen, wobei ein Substrat aus Stahlblech einem Warmumformungsprozess zuführbar ist und eine nichtmetallische Beschichtung auf Siliziumbasis in einem Schichtaufbau besitzt, wobei zwei funktionale Schichten vorhanden sind, wobei die erste Schicht eine Schutzschicht aus SiO_x oder SiN_x oder einer Kombination beider Materialien ist und eine zweite Schicht eine Absorberschicht aus einem Metallnitrid oder -carbid, unterstöchiometrischen Metalloxid, oder einer inselförmigen Clusterschicht besteht.</p>	<p>Publication/Patent Number: DE102015204802A1 Publication Date: 2016-09-22 Application Number: DE102015204802 Filing Date: 2015-03-17 Inventor : Domnick, Ralph Schleichert, Edward Belzner, Mathias Womack, Darren Assignee: Magna International Inc. IPC: C21D9/00</p>
018	NON-METALLIC COATING FOR STEEL SUBSTRATES AND METHOD FOR FORMING THE SAME	<p>A non-metallic coating for a steel substrate or for a coated steel substrate includes a first layer fabricated from at least one of a silicon oxide, a silicon nitride, and a silicon oxynitride, as well as a second layer fabricated from chromium nitride. The second layer has a thickness between 3 nm and 30 nm, and the first layer and the second layer together form a stacked-layer structure having a total thickness of not more than 300 nm.</p>	<p>Publication/Patent Number: WO2016145533A1 Publication Date: 2016-09-22 Application Number: CA2016/050298 Filing Date: 2016-03-17 Inventor : Belzner, Mathias Domnick, Ralph Womack, Darren Schleichert, Edward Assignee: MAGNA INTERNATIONAL INC. IPC: B32B15/04</p>
019	NON-METALLIC COATING FOR STEEL SUBSTRATES AND METHOD FOR FORMING THE SAME	<p>A non-metallic coating for a steel substrate or for a coated steel substrate includes a first layer fabricated from at least one of a silicon oxide, a silicon nitride, and a silicon oxynitride, as well as a second layer fabricated from chromium nitride. The second layer has a thickness between 3 nm and 30 nm, and the first layer and the second layer together form a stacked-layer structure having a total thickness of not more than 300 nm.</p>	<p>Publication/Patent Number: CA2973980A1 Publication Date: 2016-09-22 Application Number: CA2973980 Filing Date: 2016-03-17 Inventor : Domnick, Ralph Schleichert, Edward Belzner, Mathias Womack, Darren Assignee: Magna International Inc. IPC:</p>

020	METHOD AND SYSTEM FOR PRODUCING COATED STEEL COMPONENTS	A coated steel component is proposed, wherein a substrate composed of steel sheet can be supplied to a hot-forming process and possesses a non-metallic coating on the basis of silicon, in a layered structure, wherein three functional layers having the composition SiO _x NyCz are present, wherein x lies between 30 and 70%, y lies between 0 and 35%, and z lies between 0 and 50%.	Publication/Patent Number: WO2015157850A1 Publication Date: 2015-10-22 Application Number: CA2015/000251 Filing Date: 2015-04-17 Inventor : Domnick, Ralph Schleichert, Edward Belzner, Mathias Assignee: Magna International Inc. IPC: C23C14/02
021	Beschichtetes Stahlbauteil, Verfahren zur Herstellung des Stahlbauteils und Herstellungsanlage Title (English): Coated steel component	Es wird ein beschichtetes Stahlbauteil vorgeschlagen, wobei ein Substrat aus Stahlblech einem Warmumformungsprozess zuführbar ist und eine nichtmetallische Beschichtung auf Siliziumbasis in einem Schichtaufbau besitzt, wobei drei funktionale Schichten der Zusammensetzung SiO _x NyCz vorhanden sind, wobei x zwischen 30 und 70 % liegt, y zwischen 0 und 35% und z zwischen 0 und 50% liegt.	Publication/Patent Number: DE102014207447A1 Publication Date: 2015-10-22 Application Number: DE102014207447 Filing Date: 2014-04-17 Inventor : Domnick, Ralph Belzner, Mathias Edward, Schleichert Assignee: Magna International Inc. IPC: C21D9/00
022	DEVICE COMPRISING TWO REFLECTING LAYERS AND A POLYMER LAYER FOR ANALYZING THE AGE AND/OR QUALITY OF A NATURAL PRODUCT	The present invention relates to the field of analyzing the age and/or quality of certain natural products, for example foods. The invention also relates to devices for analyzing said age and/or quality as well as to methods for preparing such devices, to methods for analyzing natural products and to their use.	Publication/Patent Number: US20110157588A1 Publication Date: 2011-06-30 Application Number: US12/747,835 Filing Date: 2008-12-12 Inventor : Pittner, Fritz Bauer, Maria Bauer, Georg Domnick, Ralph Ibrisimovic, Nadira Assignee: UNIVERSITÄT WIEN MAX F. PERUTZ LABORATORIES GMBH IPC: G01J3/46

023	<p>Color effect pigment with a layer made of discrete metal particles, method for the production thereof and its use</p>	<p>The invention relates to a platelike color effect pigment having the following structure: a) a metallic reflective core; b) a spacer layer made of a dielectric material, and; c) an, all in all, semitransparent absorber layer comprising, in essence, discrete metal particles that have an average diameter of 1 to 100 nm and optionally at least one other protective layer.</p>	<p>Publication/Patent Number: US08067090B2 Publication Date: 2011-11-29 Application Number: US12/090,683 Filing Date: 2006-10-18 Inventor : Domnick, Ralph Bauer, Georg Wolfrum, Christian Kremitzl, Hans-jorg Klaumunzer, Thomas Schuster, Thomas Assignee: Eckart GmbH IPC: B32B5/16</p>
024	<p>DEVICE COMPRISING TWO REFLECTING LAYERS AND A POLYMER LAYER FOR ANALYZING THE AGE AND/OR QUALITY OF A NATURAL PRODUCT</p>		<p>Publication/Patent Number: EP2232238A2 Publication Date: 2010-09-29 Application Number: EP08871348.2 Filing Date: 2008-12-12 Inventor : Pittner, Fritz Bauer, Maria Bauer, Georg Domnick, Ralph Ibrisimovic, Nadira Assignee: Universität Wien Max F. Perutz Laboratories GmbH IPC: G01N21/45</p>
025	<p>FARBIGES EFFEKTPIGMENT MIT SCHICHT AUS DISKRETEN METALLTEILCHEN, VERFAHREN ZU DESSEN HERSTELLUNG UND DESSEN VERWENDUNG Title (English): Color effect pigment containing discrete Metal Particle laye</p>		<p>Publication/Patent Number: DE502006005546D1 Publication Date: 2010-01-14 Application Number: DE502006005546 Filing Date: 2006-10-18 Inventor : Schuster, Thomas Bauer, Georg Wolfrum, Christian Domnick, Ralph Kremitzl, Hans-joerg Klaumuenzer, Thomas Assignee: Eckart GmbH SECUTECH INTERNATIONAL PTE. LTD. IPC: C09C1/00</p>

026	INTERFERENCE BASED INDICATOR FOR ANALYZING THE AGE AND/OR QUALITY OF A NATURAL PRODUCT	The present invention relates to the field of analyzing the age and/or quality of certain natural products, for example foods. The invention also relates to devices for analyzing said age and/or quality as well as to methods for preparing such devices, to methods for analyzing natural products and to their use.	Publication/Patent Number: WO2009092498A3 Publication Date: 2009-09-24 Application Number: EP2008/067423 Filing Date: 2008-12-12 Inventor : Bauer, Maria Pittner, Fritz Bauer, Georg Domnick, Ralph Ibrisimovic, Nadira Assignee: UNIVERSITAET WIEN MAX F. PERUTZ LABORATORIES GMBH BAUER, MARIA PITTNER, FRITZ BAUER, GEORG DOMNICK, RALPH IBRISIMOVIC, NADIRA IPC: G01N21/45
027	INTERFERENCE BASED INDICATOR FOR ANALYZING THE AGE AND/OR QUALITY OF A NATURAL PRODUCT	The present invention relates to the field of analyzing the age and/or quality of certain natural products, for example foods. The invention also relates to devices for analyzing said age and/or quality as well as to methods for preparing such devices, to methods for analyzing natural products and to their use.	Publication/Patent Number: WO2009092498A2 Publication Date: 2009-07-30 Application Number: EP2008/067423 Filing Date: 2008-12-12 Inventor : Bauer, Maria Pittner, Fritz Bauer, Georg Domnick, Ralph Ibrisimovic, Nadira Assignee: UNIVERSITAET WIEN MAX F. PERUTZ LABORATORIES GMBH BAUER, MARIA PITTNER, FRITZ BAUER, GEORG DOMNICK, RALPH IBRISIMOVIC, NADIRA IPC: G01N21/45
028	FARBIGES EFFEKTPIGMENT MIT SCHICHT AUS DISKRETEN METALLTEILCHEN, VERFAHREN ZU DESSEN HERSTELLUNG UND DESSEN VERWENDUNG Title (English): Color effect pigment containing discrete Metal Particle laye		Publication/Patent Number: AT450579T Publication Date: 2009-12-15 Application Number: AT06806360 Filing Date: 2006-10-18 Inventor : Schuster, Thomas Bauer, Georg Wolfrum, Christian Domnick, Ralph Kremitzl, Hans-joerg Klaumuenzer, Thomas Assignee: Eckart GmbH SECUTECH INTERNATIONAL PTE. LTD. IPC: C09C1/00

029	<p>COLOR EFFECT PIGMENT WITH A LAYER MADE OF DISCRETE METAL PARTICLES, METHOD FOR THE PRODUCTION THEREOF AND ITS USE</p>	<p>Publication/Patent Number: EP1937781B1 Publication Date: 2009-12-02 Application Number: EP06806360.1 Filing Date: 2006-10-18 Inventor : Domnick, Ralph Bauer, Georg Wolfrum, Christian Kremitzl, Hans-jörg Klaumünzer, Thomas Schuster, Thomas Assignee: Secutech International Pte. Ltd. Eckart GmbH</p>	
030	<p>Substrate for decoratively colored coating on door latches, jewelry or clocks, comprises a coating, which has layers of different materials including a covering layer, transparent spacer layer, and a semitransparent metal layer</p>	<p>The substrate (2) for decoratively colored coating on door latches, jewelry or clocks, comprises a coating, which has layers of different materials including a covering layer (12), which is formed as a transparent or semitransparent protective layer and as a transparent or semitransparent intermediate layer formed between the covering layer and the substrate, a transparent spacer layer (8) arranged between the covering layer and the substrate or a metallic mirror layer (6), and a semitransparent metal layer (10) arranged between the spacer layer and the covering layer. The substrate (2) for decoratively colored coating on door latches, jewelry or clocks, comprises a coating, which has layers of different materials including a covering layer (12), which is formed as a transparent or semitransparent protective layer and as a transparent or semitransparent intermediate layer formed between the covering layer and the substrate, a transparent spacer layer (8) arranged between the covering layer and the substrate or a metallic mirror layer (6), and a semitransparent metal layer (10) arranged between the spacer layer and the covering layer. The substrate coating-side has a metallic surface or the substrate is coated with the metallic mirror layer, which has a minimum thickness of 50 nm. The spacer layer has a transmission of 70% or more for the region of the visible light, and thickness of 30-1000 nm. The semitransparent metal layer is homogeneous and uniform and has a thickness of 1-20 nm. The covering layer has a transmission of 50% or higher for the region of the visible light, and a thickness of 30-4000 nm. The coating has a selective maximum reflection of 50% or more in the region of the visible optical spectrum of 380-780 nm. The maximum of the reflection focal point of an electro magnetic radiation in the visible area shifts itself in an area wise reduction of the thickness of the covering layer after applying on the substrate of less than 30 nm in the wavelength dependent reflection spectrum. The substrate has a cylindrical surface form in the coating area. The transparent spacer layer has high-refraction and the transparent covering layer has low-refraction. An independent claim is included for a procedure for coating a substrate.</p>	<p>IPC: C09C1/00 Publication/Patent Number: DE102006035688A1 Publication Date: 2008-01-31 Application Number: DE102006035688 Filing Date: 2006-07-28 Inventor : Domnick, Ralph Assignee: DOMNICK, RALPH IPC: B44F1/00</p>

031	Color Effect Pigment With a Layer Made of Discrete Metal Particles, Method for the Production Thereof and Its Use	<p>The invention relates to a platelike color effect pigment having the following structure: a) a metallic reflective core; b) a spacer layer made of a dielectric material, and; c) an, all in all, semitransparent absorber layer comprising, in essence, discrete metal particles that have an average diameter of 1 to 100 nm and optionally at least one other protective layer.</p>	<p>Publication/Patent Number: US20080318012A1 Publication Date: 2008-12-25 Application Number: US12/090,683 Filing Date: 2006-10-18 Inventor : Domnick, Ralph Bauer, Georg Wolfrum, Christian Kremitzl, Hans-jorg Klaumunzer, Thomas Schuster, Thomas Assignee: Identif GmbH Eckart GmbH & Co. KG IPC: C09C1/62</p>
032	COLOR EFFECT PIGMENT WITH A LAYER MADE OF DISCRETE METAL PARTICLES, METHOD FOR THE PRODUCTION THEREOF AND ITS USE		<p>Publication/Patent Number: EP1937781A2 Publication Date: 2008-07-02 Application Number: EP06806360.1 Filing Date: 2006-10-18 Inventor : Domnick, Ralph Bauer, Georg Wolfrum, Christian Kremitzl, Hans-jörg Klaumünzer, Thomas Schuster, Thomas Assignee: Identif GmbH Eckart GmbH & Co. KG Gassner, Wolfgang IPC: C09C1/00</p>
033	Farbiges Effektpigment mit Schicht aus diskreten Metallteilchen, Verfahren zu dessen Herstellung und dessen Verwendung Title (English): Color effect pigment containing discrete Metal Particle laye	<p>Die Erfindung betrifft ein plättchenförmiges farbiges Effektpigment, welches den folgenden Aufbau besitzt: DOLLAR A a) einen metallischen Reflektorkern, DOLLAR A b) eine Abstandsschicht aus einem dielektrischen Material, DOLLAR A c) eine insgesamt semitransparente Absorberschicht, umfassend im Wesentlichen diskrete Metallpartikel, die einen mittleren Durchmesser von 1 bis 100 nm aufweisen und optional mindestens eine weitere Schutzschicht.</p>	<p>Publication/Patent Number: DE102005050094A1 Publication Date: 2007-04-19 Application Number: DE102005050094 Filing Date: 2005-10-18 Inventor : Schuster, Thomas Bauer, Georg Wolfrum, Christian Domnick, Ralph Kremitzl, Hans-joerg Klaumuenzer, Thomas Assignee: Eckart GmbH & Co. KG IDENTIF GMBH IPC: C09C1/00</p>

034	COLOR EFFECT PIGMENT WITH A LAYER MADE OF DISCRETE METAL PARTICLES, METHOD FOR THE PRODUCTION THEREOF AND ITS USE	The invention relates to a platelike color effect pigment having the following structure: a) a metallic reflective core; b) a spacer layer made of a dielectric material, and; c) an, all in all, semitransparent absorber layer comprising, in essence, discrete metal particles that have an average diameter of 1 to 100 nm and optionally at least one other protective layer.	Publication/Patent Number: WO2007045452A2 Publication Date: 2007-04-26 Application Number: EP2006/010043 Filing Date: 2006-10-18 Inventor : Schuster, Thomas Bauer, Georg Wolfrum, Christian Domnick, Ralph Kremitzl, Hans-joerg Klaumuenzer, Thomas Assignee: Eckart GmbH & Co. KG SCHUSTER, THOMAS BAUER, GEORG IDENTIF GMBH WOLFRUM, CHRISTIAN DOMNICK, RALPH KREMITZL, HANS-JOERG KLAUMUENZER, THOMAS IPC: C09C1/00
035	COLOR EFFECT PIGMENT WITH A LAYER MADE OF DISCRETE METAL PARTICLES, METHOD FOR THE PRODUCTION THEREOF AND ITS USE	The invention relates to a platelike color effect pigment having the following structure: a) a metallic reflective core; b) a spacer layer made of a dielectric material, and; c) an, all in all, semitransparent absorber layer comprising, in essence, discrete metal particles that have an average diameter of 1 to 100 nm and optionally at least one other protective layer.	Publication/Patent Number: WO2007045452A3 Publication Date: 2007-09-13 Application Number: EP2006/010043 Filing Date: 2006-10-18 Inventor : Schuster, Thomas Bauer, Georg Wolfrum, Christian Domnick, Ralph Kremitzl, Hans-joerg Klaumuenzer, Thomas Assignee: Eckart GmbH & Co. KG SCHUSTER, THOMAS BAUER, GEORG IDENTIF GMBH WOLFRUM, CHRISTIAN DOMNICK, RALPH KREMITZL, HANS-JOERG KLAUMUENZER, THOMAS IPC: C09C1/00

036	DEVICE FOR COATING WORK PIECES	The invention relates to a device and to a method for coating work pieces (3) by means of cathode sputtering. A transport device (1, 2) which is used to displace work piece holders (4) along a closed transport path (K) which leads past a cathode (7) is provided, said work piece holder being received therein in a rotating manner about the axis thereof. A rotating device which is used to continuously rotate the work piece holder (4) at least along one section (T) of the transport pat (K), which is located close to the cathode (7), is provided in order to coat the work piece in the most uniform manner possible.	Publication/Patent Number: WO2006077138A1 Publication Date: 2006-07-27 Application Number: EP2006/000507 Filing Date: 2006-01-20 Inventor : Bauer, Georg Domnick, Ralph Belzner, Mathias Assignee: IDENTIF GMBH BAUER, GEORG DOMNICK, RALPH BELZNER, MATHIAS IPC: B05B13/02
037	Vorrichtung zum Bewegen von Werkstücken Title (English): A device for moving a workpiece.	Die Erfindung betrifft eine Vorrichtung und ein Verfahren zum Beschichten von Werkstücken (3) mittels Kathodenzerstäubung, wobei eine Transporteinrichtung (1, 2) zum Bewegen von daran rotierbar um ihre Achse aufgenommenen Werkstückhaltern (4) entlang eines geschlossenen, an einer Kathode (7) vorbeiführenden Transportwegs (K) vorgesehen ist. Um eine möglichst gleichmäßige Beschichtung der Werkstücke (3) zu erreichen, ist eine Einrichtung zum kontinuierlichen Rotieren der Werkstückhalter (4) zumindest entlang eines in der Nähe der Kathode (7) befindlichen Abschnitts (T) des Transportwegs (K) vorgesehen.	Publication/Patent Number: DE102005003047A1 Publication Date: 2006-07-27 Application Number: DE102005003047 Filing Date: 2005-01-22 Inventor : Bauer, Georg Domnick, Ralph Belzner, Mathias Assignee: IDENTIF GMBH IPC: C23C14/50
038	Smart card module, method for producing a smart card module, smart card and method for testing a smart card module	In various exemplary embodiments, a smart card module is provided. The smart card module includes a carrier and a layer stack at least partly covering the carrier. The layer stack includes a reflection layer, a light-transmissive layer arranged above the reflection layer, and a partly light-transmissive silver layer arranged above the light-transmissive layer. The partly light-transmissive silver layer is configured for reflecting part of light impinging on the partly light-transmissive silver layer.	Publication/Patent Number: US10585034B2 Publication Date: 2020-03-10 Application Number: US16/043,824 Filing Date: 2018-07-24 Inventor : Spoettl, Thomas Belzner, Mathias Domnick, Ralph Pohl, Jens Pueschner, Frank Stampka, Peter Weiss, Daniel Assignee: Infineon Technologies AG IPC: G01N21/25

039	Smart Card Module, Method for Producing a Smart Card Module, Smart Card and Method for Testing a Smart Card Module	In various exemplary embodiments, a smart card module is provided. The smart card module includes a carrier and a layer stack at least partly covering the carrier. The layer stack includes a reflection layer, a light-transmissive layer arranged above the reflection layer, and a partly light-transmissive silver layer arranged above the light-transmissive layer. The partly light-transmissive silver layer is configured for reflecting part of light impinging on the partly light-transmissive silver layer.	Publication/Patent Number: US2019033206A1 Publication Date: 2019-01-31 Application Number: US20/181,604 Filing Date: 2018-07-24 Inventor : Pohl, Jens Pueschner, Frank Stampka, Peter Spoettl, Thomas Belzner, Mathias Weiss, Daniel Domnick, Ralph Assignee: Infineon Technologies AG IPC: G06K19/07
040	Smart Card Module, Method for Producing a Smart Card Module, Smart Card and Method for Testing a Smart Card Module	In various exemplary embodiments, a smart card module is provided. The smart card module includes a carrier and a layer stack at least partly covering the carrier. The layer stack includes a reflection layer, a light-transmissive layer arranged above the reflection layer, and a partly light-transmissive silver layer arranged above the light-transmissive layer. The partly light-transmissive silver layer is configured for reflecting part of light impinging on the partly light-transmissive silver layer.	Publication/Patent Number: US20190033206A1 Publication Date: 2019-01-31 Application Number: US16/043,824 Filing Date: 2018-07-24 Inventor : Spoettl, Thomas Belzner, Mathias Domnick, Ralph Pohl, Jens Pueschner, Frank Stampka, Peter Weiss, Daniel Assignee: Infineon Technologies AG IPC: G01N21/25
041	CHIPKARTENMODUL, VERFAHREN ZUM HERSTELLEN EINES CHIPKARTENMODULS, CHIPKARTE UND VERFAHREN ZUM PRÜFEN EINES CHIPKARTENMODULS Title (English): Smart card module, manufacturing method of smart card module, inspection method of smart card and smart card module	In verschiedenen Ausführungsbeispielen wird ein Chipkartenmodul bereitgestellt. Das Chipkartenmodul kann einen Träger und einen den Träger zumindest teilweise bedeckenden Schichtenstapel aufweisen. Der Schichtenstapel kann eine Reflexionsschicht, eine über der Reflexionsschicht angeordnete lichtdurchlässige Schicht und eine über der lichtdurchlässigen Schicht angeordnete, für Licht teildurchlässige Silberschicht, welche eingerichtet ist zum Reflektieren eines Teils von auf sie auftreffendem Licht, aufweisen.	Publication/Patent Number: DE102017116736B3 Publication Date: 2018-12-13 Application Number: DE102017116736 Filing Date: 2017-07-25 Inventor : Pohl, Jens Domnick, Ralph Stampka, Peter Belzner, Mathias Weiss, Daniel PÜschner, Frank Spöttl, Thomas Assignee: Infineon Technologies AG IPC: B42D25/45

042 **Method and apparatus for identifying a product**
Publication/Patent Number: **US09589227B2**

The present invention relates to a method and a corresponding apparatus for identifying a product (1) or information relating to the product (1). In the method, a concealed code on the product (1) is identified, wherein the code is given by a set of ellipsometric parameters, and the method comprises the following steps of: measuring ellipsometric variables for at least one defined point (8) on a surface (9) of the product (1), comparing the measured ellipsometric variables with at least one reference code, and determining a match between the measured ellipsometric variables and the reference code or one of the reference codes or determining a mismatch with each reference code.

Publication Date: 2017-03-07
Application Number: US12/735,092
Filing Date: 2008-12-18
Inventor : Beck, Uwe Hertwig, Andreas Hönig, Dirk
Domnick, Ralph
Assignee: BAM Bundesanstalt Für Materialforschung
Und-Prüfung
IPC: G06F17/00

043 **METHOD FOR PRODUCING TAMPER-PROOF IDENTIFICATION ELEMENTS**

Publication/Patent Number: HUE027104T2
Publication Date: 2016-08-29
Application Number: HUE03784094
Filing Date: 2003-07-28
Inventor : Kastner, Friedrich Bergsmann, Martin
Walter, Harald Bauer, Georg Domnick, Ralph
Assignee: HUECK FOLIEN GES.M.B.H
IPC: B41M3/14

044	Procedimiento de producción de características de identificación a prueba de falsificación Title (English): The process of making false Identification Features	Procedimiento de producción de características de identificación a prueba de falsificación consistente en cada caso por lo menos una capa reflectante a ondas electromagnéticas (2), una capa separadora ópticamente transparente (3) y una capa formada por clústeres metálicos (4), donde sobre un sustrato portador (1) se aplica parcial o totalmente una capa reflectante a ondas electromagnéticas (2), sobre esta capa reflectante a ondas electromagnéticas se aplica la capa separadora inerte ópticamente transparente (3) parcial o totalmente y sobre esta capa separadora ópticamente transparente se aplica una capa formada por clústeres metálicos (4), caracterizado porque la capa formada de clústeres metálicos (4) se aplica por medio de un procedimiento técnico de vacío mediante pulverización catódica o evaporación o a partir de sistemas basados en disolventes por medio de un procedimiento químico en húmedo o de impresión, y la capa separadora ópticamente transparente (3) se forma a partir de por lo menos una capa polimérica de, que se aplica mediante pintura, lacado, fundición, pulverización, impresión, por ejemplo, por un procedimiento de serigrafía, huecograbado, flexografía, o impresión digital, o un procedimiento de recubrimiento por rodillo, donde se obtiene un grosor de capa homogéneo con una tolerancia del $\pm 5\%$.	Publication/Patent Number: ES2564043T3 Publication Date: 2016-03-17 Application Number: ES03784094 Filing Date: 2003-07-28 Inventor : Walter, Harald Bauer, Georg Kastner, Friedrich Bergsmann, Martin Domnick, Ralph Assignee: HUECK FOLIEN GES.M.B.H IPC: B41M3/14
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045	METHOD FOR PRODUCING TAMPER-PROOF IDENTIFICATION ELEMENTS	<p>Publication/Patent Number: EP1558449B1 Publication Date: 2016-01-06 Application Number: EP03784094.9 Filing Date: 2003-07-28 Inventor : Kastner, Friedrich Bergsmann, Martin Walter, Harald Bauer, Georg Domnick, Ralph Assignee: Hueck Folien Ges.m.b.H IPC: B42D15/00</p>	
046	METHOD AND APPARATUS FOR IDENTIFYING A PRODUCT	<p>Publication/Patent Number: EP2225708B1 Publication Date: 2014-09-24 Application Number: EP08863379.7 Filing Date: 2008-12-18 Inventor : Beck, Uwe Hertwig, Andreas HÖnig, Dirk Domnick, Ralph Assignee: BAM Bundesanstalt für Materialforschung und -prüfung IPC: G06K19/14</p>	
047	Verfahren und Vorrichtung zum Erkennen eines Erzeugnisses Title (English): Device and device for detecting a product	<p>Verfahren zum Erkennen eines Erzeugnisses (1) oder von das Erzeugnis (1) betreffenden Informationen, bei dem eine von dem Erzeugnis (1) getragene versteckte Kodierung identifiziert wird, wobei die Kodierung durch einen Satz ellipsometrischer Parameter gegeben ist und das Verfahren folgende Schritte umfasst: – Messen ellipsometrischer Größen für mindestens eine definierte Stelle (8) auf einer Oberfläche (9) des Erzeugnisses (1), – Vergleichen der gemessenen ellipsometrischen Größen mit mindestens einer zuvor archivierten Kodierung, – Feststellen einer Übereinstimmung der gemessenen ellipsometrischen Größen mit der archivierten Kodierung oder einer der archivierten Kodierungen oder Feststellen einer Nicht-Übereinstimmung mit jeder archivierten Kodierung.</p>	<p>Publication/Patent Number: DE102007063415B4 Publication Date: 2014-12-04 Application Number: DE102007063415 Filing Date: 2007-12-18 Inventor : Domnick, Ralph Dr HÖnig, Dirk Dr Beck, Uwe Dr Hertwig, Andreas Dr Assignee: BAM Bundesanstalt für Materialforschung und -prüfung IPC: G06K7/10</p>

048	METHOD FOR PRODUCING TAMPER-PROOF IDENTIFICATION ELEMENTS	<p>A method for producing forgery proof identification features, and forgery-proof identification features produced according to said method, each consisting of at least one electromagnetic wave-reflecting layer (2). one spacer layer (3) and one layer formed of metallic clusters (4), are described, wherein a partially or fully covering electromagnetic wave-reflecting layer followed by one or more partially and/or fully covering polymer layers (3) of defined thickness are applied to a base substrate (1), whereupon a layer formed of metallic clusters produced using a vacuum method or from solvent-based systems is applied to said spacer layer(s).</p>	<p>Publication/Patent Number: CA2494961C Publication Date: 2012-06-26 Application Number: CA2494961 Filing Date: 2003-07-28 Inventor : Kastner, Friedrich Bergsmann, Martin Bauer, Georg Walter, Harald Domnick, Ralph Assignee: HUECK FOLIEN GES.M.B.H. NOVEMBER AG IPC: B41M3/14</p>
049	METHOD AND APPARATUS FOR IDENTIFYING A	<p>The present invention relates to a method and a corresponding apparatus for identifying a product (1) or information relating to the product (1). In the method, a concealed code on the product (1) is identified, wherein the code is given by a set of ellipsometric parameters, and the method comprises the following steps of: measuring ellipsometric variables for at least one defined point (8) on a surface (9) of the product (1), comparing the measured ellipsometric variables with at least one reference code, and determining a match between the measured ellipsometric variables and the reference code or one of the reference codes or determining a mismatch with each reference code.</p>	<p>PRODUCT Publication/Patent Number: US20110095080A1 Publication Date: 2011-04-28 Application Number: US12/735,092 Filing Date: 2008-12-18 Inventor : Beck, Uwe Hertwig, Andreas Hönig, Dirk Domnick, Ralph Assignee: Beck, Uwe Hertwig, Andreas Hönig, Dirk Domnick, Ralph IPC: G06K19/14</p>

- 050 **Method for producing tamper-proof identification elements** - The invention relates to a method for producing tamper-proof identification elements, and to tamper-proof identification elements produced according to said method and consisting respectively of at least one layer (2) reflecting electromagnetic waves (3), a spacer layer, and a layer consisting of metallic clusters (4). According to said method, a partial or all-over layer reflecting electromagnetic waves is applied to a carrier substrate (1), followed by at least one partial and/or all-over polymer layer having a defined thickness (3), and a layer consisting of metallic clusters which is produced by means of a method using vacuum technology or from systems based on solvents is then applied to said spacer layer(s).
- Publication/Patent Number: US08067056B2
Publication Date: 2011-11-29
Application Number: US10/523,825
Filing Date: 2003-07-28
Inventor : Kastner, Friedrich Bergsmann, Martin
Walter, Harald Bauer, Georg Domnick, Ralph
Assignee: Hueck Folien Ges .M.B.I.I. November AG
IPC: B05D1/36
- 051 **METHOD AND APPARATUS FOR IDENTIFYING A PRODUCT**
- Publication/Patent Number: EP2225708A1
Publication Date: 2010-09-08
Application Number: EP08863379.7
Filing Date: 2008-12-18
Inventor : Beck, Uwe Hertwig, Andreas HÖnig, Dirk
Domnick, Ralph
Assignee: BAM Bundesanstalt für Materialforschung
und -prüfung
IPC: G06K19/14

052	Device and method for checking the authenticity of an anti-forgery marking	<p>The invention relates to a device for checking the authenticity of an anti-forgery marking with colors which change depending on the angle of observation, comprising a) several first light sources, emitting in a given spectral range, whereby the light sources are different from each other with regard to the wavelength of the emission maximum thereof and the first light sources (1) are housed in a housing (5) such as to irradiate the surface (O), with the housing (5) placed thereon, at a given first angle (α_1), b) a first means (2) for measuring the intensity of the light reflected from the surface (O) arranged at a second angle (α_2) and c) a means (7) for the automatic comparison of measured intensities with the reference intensities stored for at least one given color for each light source (1).</p>	<p>Publication/Patent Number: US07755747B2 Publication Date: 2010-07-13 Application Number: US10/528,446 Filing Date: 2003-10-02 Inventor : Graßl, Björn Maksimovic, Radoslav Bauer, Georg Domnick, Ralph Walter, Harald Assignee: Secutech International Pte. Ltd. IPC: G06K9/74</p>
053	METHOD AND APPARATUS FOR IDENTIFYING A PRODUCT	<p>The present invention relates to a method and a corresponding apparatus for identifying a product (1) or information relating to the product (1). In the method, a concealed code on the product (1) is identified, wherein the code is given by a set of ellipsometric parameters, and the method comprises the following steps of: measuring ellipsometric variables for at least one defined point (8) on a surface (9) of the product (1), comparing the measured ellipsometric variables with at least one reference code, and determining a match between the measured ellipsometric variables and the reference code or one of the reference codes or determining a mismatch with each reference code.</p>	<p>Publication/Patent Number: WO2009077208A1 Publication Date: 2009-06-25 Application Number: EP2008/011101 Filing Date: 2008-12-18 Inventor : Domnick, Ralph Beck, Uwe Hertwig, Andreas Hoenig, Dirk Assignee: DOMNICK, RALPH BECK, UWE HERTWIG, ANDREAS HOENIG, DIRK BAM BUNDESANSTALT FUER MATERIALFORSCHUNG UND-PRUEFUNG IPC: G06K19/14</p>

054	Verfahren und Vorrichtung zum Erkennen eines Erzeugnisses Title (English): Method and device for detecting a finished product	<p>Verfahren zum Erkennen eines Erzeugnisses (1) oder von das Erzeugnis (1) betreffenden Informationen, bei dem eine von dem Erzeugnis (1) getragene versteckte Kodierung identifiziert wird, wobei die Kodierung durch einen Satz ellipsometrischer Parameter gegeben ist und das Verfahren folgende Schritte umfasst: – Messen ellipsometrischer Größen für mindestens eine definierte Stelle (8) auf einer Oberfläche (9) des Erzeugnisses (1), – Vergleichen der gemessenen ellipsometrischen Größen mit mindestens einer zuvor archivierten Kodierung, – Feststellen einer Übereinstimmung der gemessenen ellipsometrischen Größen mit der archivierten Kodierung oder einer der archivierten Kodierungen oder Feststellen einer Nicht-Übereinstimmung mit jeder archivierten Kodierung.</p>	<p>Publication/Patent Number: DE102007063415A1 Publication Date: 2009-06-25 Application Number: DE102007063415 Filing Date: 2007-12-18 Inventor : Domnick, Ralph Dr HÖnig, Dirk Dr Beck, Uwe Dr Hertwig, Andreas Dr Assignee: BAM Bundesanstalt für Materialforschung und -prüfung IPC: G06K7/10</p>
055	Forgery-proof marking for objects and method for identifying such a marking	<p>The invention relates to forgery-proof marking for objects, such as check cards, banknotes, labels, and the like, comprising a plastic transparent film (1) having a first and second surface, whereby a series of layers is applied to the second surface. When viewed from the first surface, the color of this series of layers changes according to the viewing angle, and the series of layers is formed from an absorber layer provided on the second surface, from a spacer layer (3) overlying the absorber layer, and from a mirror layer (2) overlying the spacer layer (3). In order to improve the machine identification of the authenticity of the marking, the invention provides that the absorber layer is comprised of metallic clusters (4).</p>	<p>Publication/Patent Number: US07322530B2 Publication Date: 2008-01-29 Application Number: US10/486,955 Filing Date: 2002-08-14 Inventor : Walter, Harald Bauer, Georg Domnick, Ralph Assignee: november Aktiengesellschaft Gesellschaft für Molekulare Medizin IPC: G06K19/06</p>

056	Substrat mit Schichtabfolge zur Erzeugung eines in Abhängigkeit des Blickwinkels sich ändernden Farbeindrucks Title (English): A subthread with a hierarchical sequence to produce a color impression that varies with the view	Die Erfindung betrifft ein Substrat (1, 8, 9) mit einer darauf vorgesehenen Schichtabfolge (2, 7) zur Erzeugung eines in Abhängigkeit des Blickwinkels sich ändernden Farbeindrucks, wobei die Schichtabfolge (2, 7) eine elektromagnetische Wellen reflektierende Reflexionsschicht (3), eine auf der Reflexionsschicht (3) lagernde für elektromagnetische Wellen durchlässige Abstandsschicht (4) und eine auf der Abstandsschicht (4) lagernde aus metallischen Clustern gebildete Absorberschicht (5) aufweist, wobei die Reflexionsschicht (3) für elektromagnetische Wellen teilweise durchlässig ist.	Publication/Patent Number: DE102006027263A1 Publication Date: 2007-12-13 Application Number: DE102006027263 Filing Date: 2006-06-09 Inventor : Kosak, Hans Domnick, Ralph Assignee: IDENTIF GMBH IPC: G02B5/26
057	DEVICE AND METHOD FOR CHECKING THE AUTHENTICITY OF AN ANTI-FORGERY MARKING		Publication/Patent Number: EP1547026B1 Publication Date: 2007-06-27 Application Number: EP03757908.3 Filing Date: 2003-10-02 Inventor : Grassl, Björn Maksimovic, Radoslav Bauer, Georg Domnick, Ralph Walter, Harald Assignee: November Aktiengesellschaft IPC: G07D7/12
058	VORRICHTUNG UND VERFAHREN ZUR PRÜFUNG DER AUTHENTIZITÄT EINER FÄLSCHUNGSSICHEREN MARKIERUNG Title (English): A device and method for verifying the authenticity of an anti-counterfeiting mark		Publication/Patent Number: AT365955T Publication Date: 2007-07-15 Application Number: AT03757908 Filing Date: 2003-10-02 Inventor : Bauer, Georg Walter, Harald Grassl, Bjoern Maksimovic, Radoslav Domnick, Ralph Assignee: NOVEMBER AKTIENGESELLSCHAFT IPC: G07D7/12

059	<p>VORRICHTUNG UND VERFAHREN ZUR PRÜFUNG DER AUTHENTIZITÄT EINER FÄLSCHUNGSSICHEREN MARKIERUNG</p> <p>Title (English): Device and method for verifying the authenticity of an anti-fake mark</p>	<p>Publication/Patent Number: DE50307579D1 Publication Date: 2007-08-09 Application Number: DE50307579 Filing Date: 2003-10-02 Inventor : Bauer, Georg Walter, Harald Grassl, Bjoern Maksimovic, Radoslav Domnick, Ralph Assignee: NOVEMBER AG IPC: G07D7/12</p>
060	<p>Method for producing tamper-proof identification elements - The invention relates to a method for producing tamper-proof identification elements, and to tamper-proof identification elements produced according to said method and consisting respectively of at least one layer (2) reflecting electromagnetic waves (3), a spacer layer, and a layer consisting of metallic clusters (4). According to said method, a partial or all-over layer reflecting electromagnetic waves is applied to a carrier substrate (1), followed by at least one partial and/or all-over polymer layer having a defined thickness (3), and a layer consisting of metallic clusters which is produced by means of a method using vacuum technology or from systems based on solvents is then applied to said spacer layer(s).</p>	<p>Publication/Patent Number: US20060147640A1 Publication Date: 2006-07-06 Application Number: US10/523,825 Filing Date: 2003-07-28 Inventor : Kastner, Friedrich Bergsmann, Martin Walter, Harald Bauer, Georg Domnick, Ralph Assignee: Kastner, Friedrich Bergsmann, Martin Walter, Harald Bauer, Georg Domnick, Ralph IPC: B05D1/12</p>

061	<p>VERFAHREN ZUR HERSTELLUNG VON FÄLSCHUNGSSICHEREN IDENTIFIKATIONSMERKMALE N</p> <p>Title (English): The method of Manufacturing Anti- counterfeiting Identification characteristics</p>		<p>Publication/Patent Number: AT413360B Publication Date: 2006-02-15 Application Number: AT11912002 Filing Date: 2002-08-06 Inventor : Kastner, Friedrich Dr Bergsmann, Martin Dr Walter, Harald Dr Bauer, Georg Dr Domnick, Ralph Dr Assignee: HUECK FOLIEN GES.M.B.H. NOVEMBER AKTIENGESELLSCHAFT GESELLSCHAFT FUER MOLEKULARE MEDIZIN IPC: B41M3/14</p>
062	<p>Forgery-proof marking for objects and method for identifying such a marking</p>	<p>The invention relates to forgery-proof marking for objects, such as check cards, banknotes, labels, and the like, comprising a plastic transparent film (1) having a first and second surface, whereby a series of layers is applied to the second surface. When viewed from the first surface, the color of this series of layers changes according to the viewing angle, and the series of layers is formed from an absorber layer provided on the second surface, from a spacer layer (3) overlying the absorber layer, and from a mirror layer (2) overlying the spacer layer (3). In order to improve the machine identification of the authenticity of the marking, the invention provides that the absorber layer is comprised of metallic clusters (4).</p>	<p>Publication/Patent Number: US20050001038A1 Publication Date: 2005-01-06 Application Number: US10/486,955 Filing Date: 2002-08-14 Inventor : Walter, Harald Bauer, Georg Domnick, Ralph Assignee: Walter, Harald Bauer, Georg Domnick, Ralph IPC: G06K019/00</p>

063	METHOD FOR PRODUCING TAMPER-PROOF IDENTIFICATION ELEMENTS		Publication/Patent Number: EP1558449A1 Publication Date: 2005-08-03 Application Number: EP03784094.9 Filing Date: 2003-07-28 Inventor : Kastner, Friedrich Bergsmann, Martin Walter, Harald Bauer, Georg Domnick, Ralph Assignee: Hueck Folien Ges.m.b.H November AG IPC: B42D15/00
064	Device and method for checking the authenticity of an anti-forgery marking	The invention relates to a device for checking the authenticity of an anti-forgery marking with colours which change depending on the angle of observation, comprising a) several first light sources, emitting in a given spectral range, whereby the light sources are different from each other with regard to the wavelength of the emission maximum thereof and the first light sources (1) are housed in a housing (5) such as to irradiate the surface (O), with the housing (5) placed thereon, at a given first angle (α_1), b) a first means (2) for measuring the intensity of the light reflected from the surface (O) arranged at a second angle (α_2) and c) a means (7) for the automatic comparison of measured intensities with the reference intensities stored for at least one given colour for each light source (1).	Publication/Patent Number: US20050257270A1 Publication Date: 2005-11-17 Application Number: US10/528,446 Filing Date: 2003-10-02 Inventor : Grassl, Bjorn Maksimovic, Radoslav Bauer, Georg Domnick, Ralph Walter, Harald Assignee: NOVEMBER AKTIENGESELLSCHAFT GESELLSCHAFT FUR MOLEKULARE MEDIZIN IPC: H04L009/00
065	DEVICE AND METHOD FOR CHECKING THE AUTHENTICITY OF AN ANTI-FORGERY MARKING		Publication/Patent Number: EP1547026A1 Publication Date: 2005-06-29 Application Number: EP03757908.3 Filing Date: 2003-10-02 Inventor : Grassl, Björn Maksimovic, Radoslav Bauer, Georg Domnick, Ralph Walter, Harald Assignee: November Aktiengesellschaft IPC: G07D7/12

066	<p>Publication/Patent Number: EP1547026A1 Publication Date: 2005-06-29 Application Number: EP03757908.3 Filing Date: 2003-10-02 Inventor : Grassl, Björn Maksimovic, Radoslav Bauer, Georg Domnick, Ralph Walter, Harald Assignee: November Aktiengesellschaft IPC: G07D7/12</p>	<p>Publication/Patent Number: ATA11912002A Publication Date: 2005-07-15 Application Number: AT11912002 Filing Date: 2002-08-06 Inventor : Kastner, Friedrich Dr Bergsmann, Martin Dr Walter, Harald Dr Bauer, Georg Dr Domnick, Ralph Dr Assignee: HUECK FOLIEN GES.M.B.H. NOVEMBER AKTIENGESELLSCHAFT GESELLSCHAFT FUER MOLEKULARE MEDIZIN IPC: B41M3/14</p>	
067	<p>METHOD FOR PRODUCING TAMPER-PROOF IDENTIFICATION ELEMENTS</p>	<p>A method for producing forgery proof identification features, and forgery-proof identification features produced according to said method, each consisting of at least one electromagnetic wave-reflecting layer (2). one spacer layer (3) and one layer formed of metallic clusters (4), are described, wherein a partially or fully covering electromagnetic wave-reflecting layer followed by one or more partially and/or fully covering polymer layers (3) of defined thickness are applied to a base substrate (1), whereupon a layer formed of metallic clusters produced using a vacuum method or from solvent-based systems is applied to said spacer layer(s).</p>	<p>Publication/Patent Number: CA2494961A1 Publication Date: 2004-02-19 Application Number: CA2494961 Filing Date: 2003-07-28 Inventor : Kastner, Friedrich Bergsmann, Martin Bauer, Georg Walter, Harald Domnick, Ralph Assignee: HUECK FOLIEN GES.M.B.H. NOVEMBER AG IPC: B41M3/14</p>

068	Color determination device for determining the colors on a surface, said colors varying dependent on the angle of observation, e.g. for banknote checking, whereby an arrangement of angled light emitters and detectors is used	<p>Device for determining the color or colors on a surface (O), in which the colors observed vary with the observation angle. The device has a number of light sources (1) emitting light within a given spectral range, but with different wavelengths. The sources are contained in a housing (5) so that their light is incident at a first angle (α_1) on the surface. Detection means (2) detect reflected light at a second angle (α_2), while means are provided for automatic comparison of the measured intensities with reference intensities or for calculation of coordinates in color space. The device can be expanded by provision of further light sources (3) emitting at a third angle (approximately B_1), while a second detector detects light at a fourth angle (approximately B_2). An Independent claim is made for a method for detecting the colors or colors on a surface, whereby said colors vary dependent on the angle of observation.</p>	<p>Publication/Patent Number: DE10246563A1 Publication Date: 2004-04-15 Application Number: DE10246563 Filing Date: 2002-10-05 Inventor : Bauer, Georg Walter, Harald Maksimovic, Radoslav Domnick, Ralph Grasl, Bjoern Assignee: NOVEMBER AKTIENGESELLSCHAFT GESELLSCHAFT FUER MOLEKULARE MEDIZIN IPC: G07D7/12</p>
069	DEVICE AND METHOD FOR CHECKING THE AUTHENTICITY OF AN ANTI-FORGERY MARKING		<p>Publication/Patent Number: AU2003273943A1 Publication Date: 2004-05-04 Application Number: AU2003273943 Filing Date: 2003-10-02 Inventor : Walter, Harald Bauer, Georg Grasl, Bjorn Domnick, Ralph Maksimovic, Radoslav Assignee: NOVEMBER AKTIENGESELLSCHAFT GESELLSCHAFT FUR MOLEKULARE MEDIZIN IPC: G07D7/12</p>

070	DEVICE AND METHOD FOR CHECKING THE AUTHENTICITY OF AN ANTI-FORGERY MARKING	The invention relates to a device for checking the authenticity of an anti-forgery marking with colours which change depending on the angle of observation, comprising a) several first light sources, emitting in a given spectral range, whereby the light sources are different from each other with regard to the wavelength of the emission maximum thereof and the first light sources (1) are housed in a housing (5) such as to irradiate the surface (O), with the housing (5) placed thereon, at a given first angle (α 1), b) a first means (2) for measuring the intensity of the light reflected from the surface (O) arranged at a second angle (α 2) and c) a means (7) for the automatic comparison of measured intensities with the reference intensities stored for at least one given colour for each light source (1).	Publication/Patent Number: WO2004034338A1 Publication Date: 2004-04-22 Application Number: EP2003010964 Filing Date: 2003-10-02 Inventor : Bauer, Georg Walter, Harald Grassl, Bjoern Maksimovic, Radoslav Domnick, Ralph Assignee: BAUER, GEORG NOVEMBER AKTIENGESELLSCHAFT GESELLSCHAFT FUER MOLEKULARE MEDIZIN WALTER, HARALD GRASSL, BJOERN MAKSIMOVIC, RADOSLAV DOMNICK, RALPH IPC: G07D7/12
071	Method for producing tamper-proof identification elements		Publication/Patent Number: AU2003253348A1 Publication Date: 2004-02-25 Application Number: AU2003253348 Filing Date: 2003-07-28 Inventor : Walter, Harald Bauer, Georg Kastner, Friedrich Bergsmann, Martin Domnick, Ralph Assignee: HUECK FOLIEN GES.M.B.H. IPC: B41M3/14
072	Method for producing tamper-proof identification elements		Publication/Patent Number: AU2003253348A8 Publication Date: 2004-02-25 Application Number: AU2003253348 Filing Date: 2003-07-28 Inventor : Walter, Harald Bauer, Georg Kastner, Friedrich Bergsmann, Martin Domnick, Ralph Assignee: HUECK FOLIEN GES.M.B.H. IPC: B41M3/14

073	METHOD FOR PRODUCING TAMPER-PROOF IDENTIFICATION ELEMENTS	The invention relates to a method for producing tamper-proof identification elements, and to tamper-proof identification elements produced according to said method and consisting respectively of at least one layer (2) reflecting electromagnetic waves (3), a spacer layer, and a layer consisting of metallic clusters (4). According to said method, a partial or all-over layer reflecting electromagnetic waves is applied to a carrier substrate (1), followed by at least one partial and/or all-over polymer layer having a defined thickness (3), and a layer consisting of metallic clusters which is produced by means of a method using vacuum technology or from systems based on solvents is then applied to said spacer layer(s).	Publication/Patent Number: WO2004014663A1 Publication Date: 2004-02-19 Application Number: EP2003008327 Filing Date: 2003-07-28 Inventor : Kastner, Friedrich Bergsmann, Martin Bauer, Georg Walter, Harald Domnick, Ralph Assignee: HUECK FOLIEN GES.M.B.H. KASTNER, FRIEDRICH BERGSMANN, MARTIN BAUER, GEORG WALTER, HARALD DOMNICK, RALPH NOVEMBER AG IPC: B41M3/14
074	Forgery-proof marking system for e.g. check cards comprises plastic film and layers whose color varies with angle of observation, made up of absorbing layer of metal clusters, spacer and reflecting layers	Forgery-proof marking system for check cards, bank notes, tickets, etc. comprises a plastic film (1) and an arrangement of layers whose color varies with the angle of observation. This is made up of an absorbing layer of metal clusters (4), a spacer layer (3) and a reflecting layer (2). An Independent claim is included for a mechanical method for verifying the marking comprising: (a) observing the spectrum of light reflected from the markings for a given angle of observation; (b) identifying absorption peaks in the spectrum; and (c) comparing these with preset values.	Publication/Patent Number: DE10208036A1 Publication Date: 2003-08-21 Application Number: DE10208036 Filing Date: 2002-02-26 Inventor : Bauer, Georg Walter, Harald Domnick, Ralph Assignee: NOVEMBER AKTIENGESELLSCHAFT GESELLSCHAFT FUER MOLEKULARE MEDIZIN IPC: B42D15/10

075	FORGERY-PROOF MARKING FOR OBJECTS AND METHOD FOR IDENTIFYING SUCH A MARKING	<p>The invention relates to a forgery-proof marking for objects, such as check cards, banknotes, labels and the like, comprising a plastic transparent film (1) having a first and second surface, whereby a series of layers is applied to the second surface. When viewed from the first surface, the color of this series of layers changes according to the viewing angle, and the series of layers is formed from an absorber layer provided on the second surface, from a spacer layer (3) overlying the absorber layer, and from a mirror layer (2) overlying the spacer layer (3). In order to improve the machine identification of the authenticity of the marking, the invention provides that the absorber layer is comprised of metallic clusters (4).</p>	<p>Publication/Patent Number: WO03016073A1 Publication Date: 2003-02-27 Application Number: EP0209124 Filing Date: 2002-08-14 Inventor : Bauer, Georg Walter, Harald Domnick, Ralph Assignee: BAUER, GEORG NOVEMBER AKTIENGESELLSCHAFT GESELLSCHAFT FUER MOLEKULARE MEDIZIN WALTER, HARALD DOMNICK, RALPH IPC: B42D15/10</p>
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