

Title (en)

OPTICALLY VARIABLE ELEMENT COMPRISING A SEQUENCE OF THIN-FILM LAYERS

Title (de)

OPTISCH VARIABLES ELEMENT MIT DÜNNFILMSCHICHTFOLGE

Title (fr)

ELEMENT OPTIQUEMENT VARIABLE COMPORTANT UNE SERIE DE COUCHES CONSTITUEES D'UN FILM MINCE

Publication

EP 1503907 A1 20050209 (DE)

Application

EP 03718769 A 20030417

Priority

- EP 03718769 A 20030417
- EP 0304023 W 20030417
- EP 02010745 A 20020514

Abstract (en)

[origin: WO03095228A1] The invention relates to an optically variable element, in particular an optically variable security element for safeguarding banknotes, credit cards or similar, in addition to a security product and a foil, in particular a stamped foil or a laminated foil comprising an optically variable element of this type. The optically variable element has a thin-film layer (54, 55, 58) for creating colour shifts by means of interference and an additional layer (51, 52, 53, 59). The thin-film is configured as a partial thin-film element, which covers only certain regions of the surface area of the additional layer, forming a pattern.

IPC 1-7

B42D 15/10

IPC 8 full level

B42D 25/21 (2014.01); **B41M 3/14** (2006.01); **G07D 7/12** (2016.01)

CPC (source: EP KR US)

B41M 3/14 (2013.01 - KR); **B42D 25/21** (2014.10 - KR); **B42D 25/29** (2014.10 - EP US); **B42D 25/328** (2014.10 - EP US); **G07D 7/12** (2013.01 - KR); **B42D 2035/24** (2022.01 - EP)

Citation (search report)

See references of WO 03095228A1

Cited by

DE102018003030A1; US8794674B2; US8733797B2; US8613471B2; US9007669B2; DE102008027952A1; WO2009149833A2; US9308774B2; EP3726506B1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 03095228 A1 20031120; AT E352430 T1 20070215; AU 2003222822 A1 20031111; CN 100534806 C 20090902; CN 1652946 A 20050810; DE 50306381 D1 20070315; EP 1503907 A1 20050209; EP 1503907 B1 20070124; ES 2279944 T3 20070901; JP 2006504545 A 20060209; JP 4660187 B2 20110330; KR 100587984 B1 20060608; KR 20050007537 A 20050119; PL 208667 B1 20110531; PL 373142 A1 20050822; RU 2004136320 A 20050527; RU 2309050 C2 20071027; US 2005141094 A1 20050630; US 6982832 B2 20060103

DOCDB simple family (application)

EP 0304023 W 20030417; AT 03718769 T 20030417; AU 2003222822 A 20030417; CN 03810772 A 20030417; DE 50306381 T 20030417; EP 03718769 A 20030417; ES 03718769 T 20030417; JP 2004503282 A 20030417; KR 20047018251 A 20030417; PL 37314203 A 20030417; RU 2004136320 A 20030417; US 51352104 A 20041206