

Title (en)

VALUABLE DOCUMENT COMPRISING A SECURITY ELEMENT AND METHOD FOR PRODUCING SAID VALUABLE DOCUMENT

Title (de)

WERTDOKUMENT MIT EINEM SICHERHEITSELEMENT UND VERFAHREN ZUR HERSTELLUNG DES WERTDOKUMENTS

Title (fr)

DOCUMENT DE VALEUR COMPORTANT UN ELEMENT DE SECURITE ET PROCEDE DE FABRICATION D'UN DOCUMENT DE VALEUR

Publication

EP 1631461 B1 20061018 (DE)

Application

EP 04724592 A 20040331

Priority

- EP 2004003411 W 20040331
- DE 10326644 A 20030611

Abstract (en)

[origin: WO2004108426A2] The invention relates to a valuable document (1) comprising at least one security element (6) that is provided with a marking layer (8) in a marking region (4), said layer containing an electroluminescent pigment (10) and being applied to a carrier body. The electroluminescence of the pigment (10) of one such valuable document must be able to be excited even with comparably low, externally applied field intensities. To this end, a plurality of electrically insulated field displacement elements (14) having a minimum dielectric constant of 100 is distributed over the surface of the marking region (4), said field displacement elements being at a distance of approximately between 5 µm and 500 µm from each other and compressing the applied field in the gaps thereinbetween.

IPC 8 full level

B42D 15/00 (2006.01)

CPC (source: EP US)

B42D 25/29 (2014.10 - EP US); **B42D 25/387** (2014.10 - EP US)

Cited by

DE102008034021A1; DE102012219905A1; DE102008034022A1; DE102016215002A1; DE102013205052A1; WO2014067922A1; US10255515B2; WO2018029253A1; DE102013114496A1; WO2015091237A1; US9670406B2; DE102021119436A1; WO2023006142A1; DE102020111461B3; WO2021219568A1; EP4350649A2

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 PL PT RO SE SI SK TR

Designated extension state (EPC)

AL LT LV MK

DOCDB simple family (publication)

WO 2004108426 A2 20041216; WO 2004108426 A3 20050303; AT E342811 T1 20061115; AU 2004245177 A1 20041216; AU 2004245177 B2 20090528; CA 2528111 A1 20041216; CA 2528111 C 20110329; CN 100408349 C 20080806; CN 1784314 A 20060607; CY 1105918 T1 20110406; DE 10326644 A1 20050113; DE 502004001817 D1 20061130; DK 1631461 T3 20070212; EP 1631461 A2 20060308; EP 1631461 B1 20061018; ES 2275216 T3 20070601; JP 2006527103 A 20061130; JP 4295786 B2 20090715; PL 1631461 T3 20070330; PT 1631461 E 20070228; RU 2006100302 A 20060727; RU 2329151 C2 20080720; UA 80621 C2 20071010; US 2007199999 A1 20070830; US 7427029 B2 20080923

DOCDB simple family (application)

EP 2004003411 W 20040331; AT 04724592 T 20040331; AU 2004245177 A 20040331; CA 2528111 A 20040331; CN 200480011973 A 20040331; CY 071100041 T 20070111; DE 10326644 A 20030611; DE 502004001817 T 20040331; DK 04724592 T 20040331; EP 04724592 A 20040331; ES 04724592 T 20040331; JP 2006515750 A 20040331; PL 04724592 T 20040331; PT 04724592 T 20040331; RU 2006100302 A 20040331; UA A200600237 A 20040331; US 55895704 A 20040331