

Title (en)

Security element

Title (de)

Sicherheitselement

Title (fr)

Élément de sécurité

Publication

**EP 0537439 B2 20030709 (DE)**

Application

**EP 92113563 A 19920808**

Priority

CH 300691 A 19911014

Abstract (en)

[origin: EP0537439A1] A security element for authenticating a substrate (1) has a pattern consisting of optical diffraction elements (4) embossed in a support material of plastic and of unembossed neutral areas (5). On the embossing side of the support material, a reflecting layer covers only areas with relief structures of the diffraction elements (4), whereas the neutral areas (5) lying between them are free of the reflecting layer and hence are non-reflecting. If the security element is bonded to the substrate (1) as a stamp (3) and if the support material is transparent, partial images (6) of a feature (2) on the substrate (1), masked by the stamp (3), are identifiable through the neutral areas (5). <IMAGE>

IPC 1-7

**B42D 15/10**

IPC 8 full level

**B42D 25/00** (2014.01); **B42D 25/328** (2014.01); **G02B 5/18** (2006.01); **G06K 19/06** (2006.01); **G09F 3/02** (2006.01)

CPC (source: EP US)

**B42D 25/324** (2014.10 - EP US); **B42D 25/328** (2014.10 - EP US); **B42D 25/351** (2014.10 - EP US); **B42D 25/425** (2014.10 - EP US); **B42D 25/47** (2014.10 - EP US); **Y10S 428/908** (2013.01 - EP US); **Y10S 428/913** (2013.01 - EP US); **Y10S 428/916** (2013.01 - EP US); **Y10T 428/24364** (2015.01 - EP US); **Y10T 428/24736** (2015.01 - EP US); **Y10T 428/31681** (2015.04 - EP US)

Cited by

FR2738185A1; FR2893424A1; EP1698486A1; RU2471634C2; DE102017004784A1; EP0758587A1; US5759420A; AU702924B2; US8439402B2; US6359734B1; US8685488B2; US8367277B2; WO2008061515A1; WO9707987A1; WO2006084686A3; WO2007057613A1; EP2711195A3; EP2711196A3; DE102012001121C5; WO2006084685A2; US7748321B2; US7821716B2; EP0675006B1; US8053146B2; US8450029B2; EP2711195A2; EP2711196A2; US9321294B2; EP2848425B1; EP2848425B2

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI NL SE

DOCDB simple family (publication)

**EP 0537439 A1 19930421**; **EP 0537439 B1 19951206**; **EP 0537439 B2 20030709**; AT E131115 T1 19951215; AU 2620392 A 19930422; AU 664202 B2 19951109; CA 2077165 A1 19930415; CA 2077165 C 20041109; DE 59204591 D1 19960118; FI 924621 A0 19921013; FI 924621 A 19930415; JP 3618766 B2 20050209; JP H05224606 A 19930903; US 5714213 A 19980203

DOCDB simple family (application)

**EP 92113563 A 19920808**; AT 92113563 T 19920808; AU 2620392 A 19921002; CA 2077165 A 19920828; DE 59204591 T 19920808; FI 924621 A 19921013; JP 26399792 A 19921002; US 22637994 A 19940412