Title (en)

Security element with an optically variable layer

Title (de)

Sicherheitselement mit einer optisch variablen Schicht

Title (fr)

Elément de sécurité doté d'une couche optiquement variable

Publication

**EP 2420391 A3 20150902 (DE)**

Application

**EP 11005638 A 20110709**

Priority

AT 12142010 A 20100719

Abstract (en)

[origin: EP2420391A2] The safety element (2) has an optical variable layer (7) including different color impressions under different angles of vision. A metallic color layer (8) is arranged in a defined region adjacent to the optical variable layer or in a plane of the element. A color impression of the color layer is adapted to one color impression of the optical variable layer under a defined angle of vision. The color layer includes a layer containing metal composites e.g. oxide, sulfide or chromate, and a partially reflecting layer. The element is formed with a hot-, cold- or self-adhesive coating.

IPC 1-7

**B44F 1/12**

IPC 8 full level

B42D 15/00 (2006.01)

CPC (source: EP US)

**B42D 25/29** (2014.10 - EP); **B42D 25/373** (2014.10 - US); B42D 2033/10 (2022.01 - EP); B42D 2033/20 (2022.01 - EP); B42D 2033/26 (2022.01 - EP); B42D 2035/24 (2022.01 - EP)

Citation (search report)
- [XAI] DE 102008031325 A1 20100107 - GIESECKE & DEVRIENT GMBH [DE]
- [A] DE 102007061828 A1 20090625 - GIESECKE & DEVRIENT GMBH [DE]

Cited by

WO2022034193A1; EP3954544A1; EP2960068A1; US11932001B2; EP3777605A4; EP3777604A4; WO2016192828A1; WO2017194189A1; US11812837B2; CN110978577A; EP3808210A4; EP3808209A4; EP3808208A4; EP3808206A4; US11589663B2; US11889910B2; US11906760B2; US11940636B2; US12013555B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 2420391 A2 20120222**; **EP 2420391 A3 20150902**; AT 510220 A1 20120215; AT 510220 B1 20130715

DOCDB simple family (application)

**EP 11005638 A 20110709**; AT 12142010 A 20100719