

Title (en)
SECURITY ELEMENT WITH DISPLAY ARRANGEMENT

Title (de)
SICHERHEITSELEMENT MIT DARSTELLUNGSANORDNUNG

Title (fr)
ÉLÉMENT DE SÉCURITÉ À SYSTÈME DE VISUALISATION

Publication
EP 2897812 B1 20170111 (DE)

Application
EP 13770637 A 20130920

Priority
• DE 102012018774 A 20120924
• EP 2013002845 W 20130920

Abstract (en)
[origin: WO2014044402A1] The invention relates to a security element (100) for protecting security papers, value documents and other data carriers, said element having a display arrangement for displaying one or more target images (14A, 14B), the motifs of which are each formed by visually recognizable contrasting metallic portions (16A, 16B) and non-metallic portions (18A, 18B). The display arrangement comprises a motif layer (106) with a plurality of metallised image elements and non-metallised image elements, and a viewing grid a distance away from the motif layer consisting of a plurality of viewing elements (104). When viewed with the viewing grid, the metallised image elements and the non-metallised image elements generate the visually recognizable contrasting metallic and non-metallic portions of the target images (14A, 14B). According to the invention, the motif layer (106) comprises an embossed structure with elevations (118) and depressions (110, 120), wherein the non-metallised image elements of the motif layer are formed by non-metallised elevations (118) of the embossed structure and the metallic image elements are formed by substantially metallised depressions (110, 120) of the embossed structure, and at least one part of the substantially metallised depressions (110), in a proportion of between 0.1% and 25% of the surface area, contain small elevated support structures (92) which are not visually recognizable when viewed with the viewing grid.

IPC 8 full level
B42D 15/00 (2006.01); **B42D 25/00** (2014.01)

CPC (source: EP US)
B42D 25/00 (2014.10 - EP); **B42D 25/29** (2014.10 - EP); **B42D 25/373** (2014.10 - US); **B42D 25/425** (2014.10 - EP US);
B42D 25/43 (2014.10 - EP); **B42D 25/324** (2014.10 - EP); **B42D 25/455** (2014.10 - EP); **B42D 25/46** (2014.10 - EP); **B42D 25/47** (2014.10 - EP);
B42D 2033/10 (2022.01 - EP); **B42D 2033/20** (2022.01 - EP); **B42D 2033/24** (2022.01 - EP); **B42D 2035/20** (2022.01 - EP)

Citation (examination)
DE 102007062089 A1 20090702 - GIESECKE & DEVRIENT GMBH [DE]

Cited by
US10800201B2

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

DOCDB simple family (publication)
WO 2014044402 A1 20140327; DE 102012018774 A1 20140327; EP 2897812 A1 20150729; EP 2897812 B1 20170111

DOCDB simple family (application)
EP 2013002845 W 20130920; DE 102012018774 A 20120924; EP 13770637 A 20130920