

Title (en)

MULTILAYERED SECURITY ELEMENT WITH VARIABLE OPTICAL EFFECT AND A COUNTERFEIT-PROOF DOCUMENT

Title (de)

MEHRSCHICHTIGES SICHERHEITSELEMENT MIT VERÄNDERLICHEM OPTISCHEM EFFEKT UND FÄLSCHUNGSSICHERES DOKUMENT

Title (fr)

ÉLÉMENT DE PROTECTION MULTICOUCHE POSSÉDANT UN EFFET OPTIQUE ALTERNANT, ET DOCUMENT PROTÉGÉ CONTRE LES CONTREFAÇONS

Publication

EP 2600332 A1 20130605 (EN)

Application

EP 10855407 A 20101206

Priority

- RU 2010131795 A 20100729
- RU 2010000732 W 20101206

Abstract (en)

The invention relates to counterfeit-proof documents with multilayered security markings. A multilayered security element comprises a flexible base layer with optically variable structures containing two or more groups of repeating images which move and/or changing as the viewing angle varies. The optically variable structures are formed so that when the viewing angle varies different groups of images move relative to each other. The invention makes it possible to enhance the security of documents owing to a novel optical effect which renders the protected item more readily identifiable and is based on observation of relative movement of images as the viewing angle varies.

IPC 8 full level

B42D 15/00 (2006.01); **D21H 21/40** (2006.01); **D21H 21/42** (2006.01); **D21H 21/44** (2006.01); **G07D 7/00** (2006.01); **G07D 7/12** (2006.01); **G09F 3/00** (2006.01)

CPC (source: EP US)

B42D 25/328 (2014.10 - EP US); **B42D 25/355** (2014.10 - EP US); **B42D 25/425** (2014.10 - EP); **B42D 25/45** (2014.10 - EP US); **D21H 21/40** (2013.01 - EP); **D21H 21/42** (2013.01 - EP); **D21H 21/44** (2013.01 - EP); **G07D 7/003** (2017.04 - EP); **G07D 7/12** (2013.01 - EP); **G09F 3/0292** (2013.01 - EP); **B42D 25/21** (2014.10 - US); **B42D 25/324** (2014.10 - EP); **B42D 2033/24** (2022.01 - EP); **B42D 2035/50** (2022.01 - EP)

Cited by

US10207531B2; WO2018206147A1; US10744812B2; EP2885135B1; EP2782765B1

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)

EP 2600332 A1 20130605; **EP 2600332 A4 20130821**; **EP 2600332 B1 20150610**; CN 103119638 A 20130522; CN 103119638 B 20160622; RU 2430836 C1 20111010; WO 2012015330 A1 20120202

DOCDB simple family (application)

EP 10855407 A 20101206; CN 201080068352 A 20101206; RU 2010000732 W 20101206; RU 2010131795 A 20100729