

Title (en)
Security document

Title (de)
Sicherheitsdokument

Title (fr)
Document de sécurité

Publication
EP 1923229 B1 20100804 (EN)

Application
EP 06023970 A 20061118

Priority
EP 06023970 A 20061118

Abstract (en)

[origin: EP1923229A1] The invention relates to a security document comprising a substrate 4 which is provided with a security feature. According to the invention, the security feature comprises an arrangement of optical elements 2 within a predetermined area 32, 34 of the security document, wherein each of said optical elements 2 forms an optical reflector and wherein each of said optical elements 2 comprises a stack of curved alternating layers 10 of different refractive indices. The optical reflector changes its appearance depending on the type of incident illumination. When viewed from any direction under diffuse white incident illumination, the optical reflector has the appearance of a single dull colour, while under directional white incident illumination a bright sparkling effect is observed.

IPC 8 full level
B42D 15/10 (2006.01); **B42D 15/00** (2006.01)

CPC (source: EP US)
B42D 25/00 (2014.10 - EP); **B42D 25/29** (2014.10 - EP US); **B42D 25/324** (2014.10 - EP); **B42D 2035/20** (2022.01 - EP)

Cited by
EP3591442A1; CN107407747A; WO2016156863A3; US11889894B2; US11987073B2; US11987074B2; US10310152B2; CN109567305A; CN111433031A; US11612208B2; US11986042B2; US11597996B2; US11840755B2; US11987873B2; US11385382B2; US11391867B2; US11397283B2; US11402544B2; US11402546B2; US11402545B2; US11609359B2; US11614563B2; US11733430B2; US11988806B2; US11994649B2; US12000977B2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1923229 A1 20080521; EP 1923229 B1 20100804; AT E476304 T1 20100815; DE 602006015974 D1 20100916; ES 2348045 T3 20101129

DOCDB simple family (application)
EP 06023970 A 20061118; AT 06023970 T 20061118; DE 602006015974 T 20061118; ES 06023970 T 20061118