

Title (en)

MULTILAYER BODY OPTICAL ANTI-COUNTERFEITING ELEMENT AND FABRICATION METHOD THEREFOR

Title (de)

OPTISCHES FÄLSCHUNGSSCHUTZELEMENT MIT MEHRLAGIGEM KÖRPER UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

ÉLÉMENT ANTI-CONTREFAÇON OPTIQUE À CORPS MULTICOUCHE ET SON PROCÉDÉ DE FABRICATION

Publication

EP 4035903 A4 20230104 (EN)

Application

EP 20868863 A 20200916

Priority

- CN 201910932440 A 20190929
- CN 2020115557 W 20200916

Abstract (en)

[origin: EP4035903A1] The disclosure provides an optical anti-counterfeiting element and a manufacturing method therefor. The optical anti-counterfeiting element includes a relief structure layer (2), which includes a first region (A) having a first microstructure and a second region (B) having a second microstructure, a specific volume of the second microstructure is greater than a specific volume of the first microstructure; and a first coating (31), a dielectric layer (32), a second coating (33) and a protective layer (4) stacked in sequence on a side of the relief structure layer (2), wherein the first coating (31) and the dielectric layer (32) are located in the first region (A) and the second region (B), the second coating (33) and the protective layer (4) are located in the first region (A) but not located in the second region (B), and the first coating (31), the dielectric layer (32) and the second coating (33) form a functional coating group (3), the functional coating group (3) and the first microstructure have a combined optical characteristic in the first region (A), and the first coating (31) and the second microstructure have a combined optical characteristic in the second region (B).

IPC 8 full level

B42D 25/324 (2014.01); **B42D 25/328** (2014.01); **B42D 25/351** (2014.01); **B42D 25/373** (2014.01); **B42D 25/425** (2014.01); **B42D 25/445** (2014.01)

CPC (source: CN EP)

B42D 25/324 (2014.10 - EP); **B42D 25/328** (2014.10 - CN EP); **B42D 25/351** (2014.10 - EP); **B42D 25/36** (2014.10 - CN); **B42D 25/373** (2014.10 - CN EP); **B42D 25/40** (2014.10 - CN); **B42D 25/425** (2014.10 - EP); **B42D 25/445** (2014.10 - CN EP)

Citation (search report)

- [A] CN 106891637 A 20170627 - ZHONGCHAO SPECIAL SECURITY TECHNOLOGY CO LTD, et al
- [A] CN 109895527 A 20190618 - ZHONGCHAO SPECIAL SECURITY TECHNOLOGY CO LTD, et al
- [A] DE 102015010744 A1 20170223 - GIESECKE & DEVRIENT GMBH [DE]
- [A] EP 3208099 A1 20170823 - ZHONGCHAO SPECIAL SECURITY TECHNOLOGY CO LTD [CN], et al
- See references of WO 2021057574A1

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 4035903 A1 20220803; **EP 4035903 A4 20230104**; **EP 4035903 B1 20231101**; CN 112572018 A 20210330; CN 112572018 B 20220614; JP 2022551240 A 20221208; JP 7307853 B2 20230712; WO 2021057574 A1 20210401

DOCDB simple family (application)

EP 20868863 A 20200916; CN 201910932440 A 20190929; CN 2020115557 W 20200916; JP 2022519716 A 20200916