

Title (en)

SECURITY ELEMENT, AND METHOD FOR PRODUCING A SECURITY ELEMENT

Title (de)

SICHERHEITSELEMENT UND VERFAHREN ZUM HERSTELLEN EINES SICHERHEITSELEMENTS

Title (fr)

ÉLÉMENT DE SÉCURITÉ ET PROCÉDÉ DE FABRICATION D'UN ÉLÉMENT DE SÉCURITÉ

Publication

**EP 3529084 A2 20190828 (DE)**

Application

**EP 17791574 A 20171019**

Priority

- DE 102016012625 A 20161021
- EP 2017001226 W 20171019

Abstract (en)

[origin: WO2018072881A2] The invention relates to a method for producing a security element (12) comprising a flip image, the method comprising the following steps: providing a substrate (14) having a region with a dye that is sensitive to laser radiation; forming a plurality of microstructures (26) on the substrate (14), each microstructure (26) being formed such that it focuses radiation incident on a front face of the substrate (14) onto said region; and irradiating the microstructures (26) with a set (28) of parallel laser beams at a first angle to the substrate (14), the individual laser beams of the set (28) being arranged such that a structure of a first flip image (18) is created, which image can be discernible from the front face at a viewing angle associated with the first angle ( $\alpha$ ); wherein the dye that is sensitive to laser radiation changes its colour by irradiation with a specific laser radiation; and wherein the first flip image (18) displays a colour effect caused by the colour change.

IPC 8 full level

**B42D 25/324** (2014.01); **B42D 25/36** (2014.01); **B42D 25/378** (2014.01); **B42D 25/41** (2014.01)

CPC (source: EP)

**B42D 25/324** (2014.10); **B42D 25/36** (2014.10); **B42D 25/378** (2014.10); **B42D 25/41** (2014.10)

Citation (search report)

See references of WO 2018072881A2

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)

**DE 102016012625 A1 20180426**; CN 109562635 A 20190402; CN 109562635 B 20210720; EP 3529084 A2 20190828;  
EP 3529084 B1 20210106; WO 2018072881 A2 20180426; WO 2018072881 A3 20180614

DOCDB simple family (application)

**DE 102016012625 A 20161021**; CN 201780044412 A 20171019; EP 17791574 A 20171019; EP 2017001226 W 20171019