

Title (en)

METHOD FOR CHECKING THE AUTHENTICITY OF PRODUCTS AND PRINTED IMAGE

Title (de)

VERFAHREN ZUM AUTHENTIZITÄTSNACHWEIS VON PRODUKTEN SOWIE GEDRUCKTE ABBILDUNG

Title (fr)

PROCÉDÉ POUR PROUVER L'AUTHENTICITÉ DE PRODUITS ET REPRÉSENTATION IMPRIMÉE

Publication

**EP 3791368 A1 20210317 (DE)**

Application

**EP 19749178 A 20190622**

Priority

- DE 102018115146 A 20180624
- DE 2019100576 W 20190622

Abstract (en)

[origin: WO2020001695A1] The invention relates to a method for producing security elements in an image which are not visible to the human eye and which cannot be copied, in particular for checking the authenticity of images, the image being imaged by means of a halftone, the halftone consisting of individual image dots and in particular being produced by duplex printing, four-colour printing or hexachrome printing. At least one field is defined in the image/the halftone, wherein, by means of manipulation of image dots in the field and/or by means of manipulation of the entire field, an encrypted information item that cannot be copied is stored for comparison with at least one data bank, and the series number is displayed by means of contours formed in the halftone. The printed image comprises at least one security element which cannot be copied, wherein the image is printed from a halftone with individual image dots, and within its halftone comprises an evaluable information item in such a way that the image comprises at least one field which comprises a manipulation of the image dots not visible to the human eye, and/or the image comprises at least one manipulated field not visible to the human eye.

IPC 8 full level

**G07D 7/0047** (2016.01); **G07D 7/005** (2016.01); **G07D 7/20** (2016.01); **G07D 7/2033** (2016.01)

CPC (source: EP US)

**G06K 15/1836** (2013.01 - US); **G06K 15/1881** (2013.01 - US); **G06V 20/80** (2022.01 - US); **G07D 7/0047** (2017.04 - EP); **G07D 7/005** (2017.04 - EP); **G07D 7/0055** (2017.04 - EP); **G07D 7/2008** (2013.01 - EP); **G07D 7/2033** (2013.01 - EP); **H04L 9/3278** (2013.01 - US); **H04N 1/00838** (2013.01 - US); **H04N 1/0087** (2013.01 - US); **H04N 1/32251** (2013.01 - US); **H04N 1/32256** (2013.01 - US); **H04N 1/32272** (2013.01 - US); **H04N 1/32352** (2013.01 - US); **G06T 2201/0051** (2013.01 - US); **G06V 20/95** (2022.01 - US); **H04L 9/50** (2022.05 - US); **H04N 2201/3235** (2013.01 - US); **H04N 2201/3281** (2013.01 - US)

Citation (search report)

See references of WO 2020001696A1

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 102018115146 A1 20191224**; CN 112292716 A 20210129; CN 112313716 A 20210202; CN 112313716 B 20230526; EP 3791367 A1 20210317; EP 3791368 A1 20210317; US 11587339 B2 20230221; US 11715309 B2 20230801; US 2021245542 A1 20210812; US 2021248369 A1 20210812; WO 2020001695 A1 20200102; WO 2020001695 A4 20200220; WO 2020001696 A1 20200102

DOCDB simple family (application)

**DE 102018115146 A 20180624**; CN 201980041941 A 20190622; CN 201980042323 A 20190622; DE 2019100575 W 20190622; DE 2019100576 W 20190622; EP 19749177 A 20190622; EP 19749178 A 20190622; US 201916973071 A 20190622; US 201916973072 A 20190622