

Title (en)

SECURITY ELEMENT WITH RELIEF STRUCTURE AND METHOD FOR THE PRODUCTION THEREOF

Title (de)

SICHERHEITSELEMENT MIT RELIEFSTRUKTUR UND HERSTELLUNGSVERFAHREN HIERFÜR

Title (fr)

ÉLÉMENT DE SÉCURITÉ AVEC STRUCTURE EN RELIEF ET SON PROCÉDÉ DE FABRICATION

Publication

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Application

EP 18713788 A 20180319

Priority

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Abstract (en)

[origin: WO2018184715A1] The invention relates to a security element (S) for producing security documents, such as bank notes, checks, or the like, which shows a theme in front of a background, which has a relief structure (7, 10, 12-14, 16, 17), which covers a theme region (1, 4) of the security element (S) and provides the theme there and covers a background region (2) of the security element (S) and provides the background there, wherein there is an outline (3), which delimits the theme from the background, which is also formed by the relief structure, wherein the relief structure (12, 14 and 17) of the outline differs from the relief structure (10, 13, 16a) of the theme region and the relief structure (7, 16b) of the background region (2) such that there is a brightness and/or color contrast between the outline (3), on the one hand, and the theme region (1, 4) and background region (2), on the other.

IPC 8 full level

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Citation (opposition)

Opponent : De La Rue International Limited

- US 2014353959 A1 20141204 - LOCHBIHLER HANS [DE]
- EP 2077459 A1 20090708 - TOPPAN PRINTING CO LTD [JP]
- WO 2004077468 A2 20040910 - GIESECKE & DEVRIENT GMBH [DE], et al
- US 7265904 B2 20070904 - SCHILLING ANDREAS [CH], et al
- WO 9504948 A1 19950216 - COMMW SCIENT IND RES ORG [AU], et al

Opponent : Hueck Folien Gesellschaft m.b.H.

- WO 2013091858 A1 20130627 - GIESECKE & DEVRIENT GMBH [DE]
- DE 102008046128 A1 20100311 - GIESECKE & DEVRIENT GMBH [DE]
- WO 2011029602 A2 20110317 - OVD KINEGRAM AG [CH], et al
- WO 9719820 A1 19970605 - LANDIS & GYR TECH INNOVAT [CH], et al
- EP 2466345 A1 20120620 - TOPPAN PRINTING CO LTD [JP]
- EP 1747100 B1 20110316 - OVD KINEGRAM AG [CH]
- DE 10351129 A1 20050616 - OVD KINEGRAM AG ZUG [CH]
- ANONYMOUS: "Stuckelungen ", 23 September 2014 (2014-09-23), pages 1 - 1, XP093086341, Retrieved from the Internet <URL:https://www.ecb.europa.eu/euro/banknotes/current/denominations/html/index.de.html#es2-010> [retrieved on 20230927]

Opponent : Müller-Boré & Partner Patentanwälte PartG mbB

- JP 2011027832 A 20110210 - TOPPAN PRINTING CO LTD
- JP 2008107472 A 20080508 - TOPPAN PRINTING CO LTD
- JP 2007292899 A 20071108 - DAINIPPON PRINTING CO LTD
- US 2013285361 A1 20131031 - STAUB RENE [CH], et al
- US 2014353959 A1 20141204 - LOCHBIHLER HANS [DE]
- US 2015192897 A1 20150709 - SCHILLING ANDREAS [CH], et al
- US 9188716 B2 20151117 - LOCHBIHLER HANS [DE]
- US 4984824 A 19910115 - ANTES GREGOR [CH], et al
- JP 2007286256 A 20071101 - DAINIPPON PRINTING CO LTD

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