

Title (en)

Valuable or security document with a safety marker

Title (de)

Wert- oder Sicherheitsdokument mit einem Sicherheitsmerkmal

Title (fr)

Document de valeur ou de sécurité doté d'une caractéristique de sécurité

Publication

**EP 2138322 A2 20091230 (DE)**

Application

**EP 09160380 A 20090515**

Priority

DE 102008002583 A 20080623

Abstract (en)

The value or safety document has a structural element (102,104) for forming a meta-material. A conductor structure comprises a structural element, where the conductor structure is formed for a grid or a resonator. The structure elements are metallic and are complementary to each other. One layer has one structure element and another layer has another structure element. Independent claims are included for the following: (1) a document pile of documents with a meta-material; (2) a device for checking the number of stacked documents in a document pile; and (3) a method for checking a document pile.

Abstract (de)

Die Erfindung betrifft ein Wert- oder Sicherheitsdokument mit zumindest einem Strukturelement (102, 104) zur Bildung eines Metamaterials

IPC 8 full level

**G07D 7/10** (2006.01); **B42D 15/00** (2006.01); **B42D 15/10** (2006.01)

CPC (source: EP US)

**B42D 25/00** (2014.10 - EP); **B42D 25/29** (2014.10 - EP US); **G07D 7/10** (2013.01 - EP US)

Citation (applicant)

- US 6958729 B1 20051025 - METZ CARSTEN [US]
- SPEKTRUM DER WISSENSCHAFT, October 2006 (2006-10-01), pages 74 - 81
- "Electro-magnetic Resonances in Individual and Coupled Split-Ring Resonators", JOURNAL OF APPLIED PHYSICS, vol. 92, no. 5, 1 September 2002 (2002-09-01), pages 2929 - 2936
- LI JIUSHENG, MICROWAVE AND MILLIMETER WAVE TECHNOLOGY, 18 April 2007 (2007-04-18), pages 1 - 4

Cited by

EP3028869A1; CN105431301A; WO2014206977A1

Designated contracting state (EPC)

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 SE SI SK TR

DOCDB simple family (publication)

**EP 2138322 A2 20091230**; **EP 2138322 A3 20110713**; **EP 2138322 B1 20120905**; DE 102008002583 A1 20100114; PL 2138322 T3 20130131

DOCDB simple family (application)

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