

Title (en)

Electronic security means for security documents using a thermoelectric power generator

Title (de)

Elektronisches Sicherheitsmittel für Sicherheitsdokumente mithilfe eines thermoelektrischen Leistungsgenerator

Title (fr)

Dispositif de sécurité électronique pour documents de sécurité utilisant un générateur de puissance thermoélectrique

Publication

**EP 1813439 A1 20070801 (EN)**

Application

**EP 06001668 A 20060127**

Priority

EP 06001668 A 20060127

Abstract (en)

Security document comprising substrate means (1) and at least one electronic security means, characterized in that said security document also comprises at least one thermoelectric power generator means (2) electrically connected to said electronic security means. The security document can be manufactured by providing said thermoelectric power generator means (2) and said electronic security means on said substrate means (1). It is particularly useful for checking its authenticity, wherein a temperature gradient is applied to said thermoelectric power generator means (2) and a status change of said electronic security means is observed.

IPC 8 full level

**B42D 15/00** (2006.01); **G06K 19/07** (2006.01)

CPC (source: EP US)

**B42D 25/21** (2014.10 - US); **B42D 25/29** (2014.10 - EP); **B42D 25/373** (2014.10 - US); **B42D 2033/46** (2022.01 - EP)

Citation (applicant)

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- D.M ROWE; D. V. MORGAN; J. KIELY: "Miniature low power/high voltage thermoelectric generators", ELECTRONICS LETTERS, vol. 25, no. 2, 1989, pages 166, XP000046250
- WENMIN QU: "Microfabrication of thermoelectric generators on flexible foil substrates as a power source for autonomous microsystems", J. MICROMECH. MICROENG., vol. 11, 2001, pages 146 - 152, XP020068628, DOI: doi:10.1088/0960-1317/11/2/310
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Citation (search report)

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Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK YU

DOCDB simple family (publication)

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DOCDB simple family (application)

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