

Title (en)

OPTICAL FILTERING DEVICE INCLUDING FABRY-PEROT CAVITIES COMPRISING A STRUCTURED LAYER AND HAVING DIFFERENT THICKNESSES

Title (de)

OPTISCHE FILTERUNGSVORRICHTUNG MIT FABRY-PEROT-RESONATOR MIT EINER STRUKTURIERTEN SCHICHT MIT UNTERSCHIEDLICHER DICKE

Title (fr)

DISPOSITIF DE FILTRAGE OPTIQUE COMPORTANT DES CAVITES FABRY-PEROT A COUCHE STRUCTUREE ET D'EPAISSEURS DIFFERENTES

Publication

EP 3140686 A1 20170315 (FR)

Application

EP 15720711 A 20150504

Priority

- FR 1454082 A 20140506
- EP 2015059743 W 20150504

Abstract (en)

[origin: WO2015169761A1] Filtering device (100) including first and second interference filters (106) each comprising a Fabry-Perot cavity formed by semi-reflective layers (108, 118) between which a structured layer (110.1) is placed, in which: the structured layer belongs conjointly to the two filters, has a substantially constant thickness, is substantially planar and comprises two materials of different refractive indices placed in each of the cavities so as to form vertical structures; the cavity of the second filter comprises a spacer (120) placed between one of the semi-reflective layers and the structured layer such that a distance between the semi-reflective layers of the cavity of the second filter is larger than a distance between the semi-reflective layers of the cavity of the first filter; and the filters comprise a second structured layer (110.2) placed in the cavities of the filters, and/or each filter comprises a second Fabry-Perot cavity containing a third structured layer.

IPC 8 full level

G02B 5/28 (2006.01); **G01J 3/26** (2006.01); **G02B 5/20** (2006.01); **G02B 27/10** (2006.01)

CPC (source: EP US)

G01J 3/26 (2013.01 - EP); **G01J 3/2823** (2013.01 - EP); **G01J 3/36** (2013.01 - EP); **G02B 5/201** (2013.01 - EP US); **G02B 5/288** (2013.01 - EP US); **G01B 2290/25** (2013.01 - US); **G01J 3/26** (2013.01 - US); **G01J 2003/2826** (2013.01 - EP US)

Citation (search report)

See references of WO 2015169761A1

Citation (examination)

- US 2013077029 A1 20130328 - NAGATO HITOSHI [JP], et al
- JP 2004287191 A 20041014 - SEIKO EPSON CORP

Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

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DOCDB simple family (application)

EP 2015059743 W 20150504; EP 15720711 A 20150504; FR 1454082 A 20140506; US 201515308448 A 20150504; US 202016732767 A 20200102