

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
G01J 3/26 (2006.01); **G02B 5/20** (2006.01); **G02B 5/28** (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)
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)
WO 2015169761 A1 20151112; EP 3140686 A1 20170315; FR 3020878 A1 20151113; US 10571612 B2 20200225; US 10895674 B2 20210119; US 2017059754 A1 20170302; US 2020142113 A1 20200507

DOCDB simple family (application)
EP 2015059743 W 20150504; EP 15720711 A 20150504; FR 1454082 A 20140506; US 201515308448 A 20150504; US 202016732767 A 20200102