Title (en)

DEVICE FOR FOCUSING LIGHT WITH SUB-WAVELENGTH DIMENSIONS AND HIGH YIELD

Title (de)

VORRICHTUNG ZUR FOKALISIERUNG DES LICHTS ZU EINER GRÖSSE IM SUBWELLENLÄNGENBERICH MIT HOHEM ERTRAG

Title (fr)

DISPOSITIF DE FOCALISATION DE LUMIERE A DES DIMENSIONS SUB-LONGUEUR D'ONDE A FORT RENDEMENT

Publication

EP 2286413 A1 20110223 (FR)

Application

EP 09749843 A 20090519

Priority

- EP 2009056083 W 20090519
- FR 0802732 A 20080520

Abstract (en)

[origin: WO2009141353A1] The general field of the invention is that of devices for focusing light with sub-wavelength dimensions comprising at least one focusing structure comprising a metal film comprising a first aperture passing through the film and of dimensions of an order of magnitude that are smaller than the wavelength of use of the focusing device. In the devices according to the invention, the focusing structure comprises at least one optical cavity disposed on the aperture so that, when the structure is illuminated by an optical flux at the wavelength of use of the device, a significant part of this flux is concentrated on the aperture by said cavity. Several embodiments are described using various types of cavity that may comprise plasmon reflectors.

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G12B 21/06

IPC 8 full level

G01Q 60/22 (2010.01); G11B 7/135 (2012.01)

CPC (source: EP US)

G01Q 60/22 (2013.01 - EP US); **G02B 5/008** (2013.01 - US); Y10S 359/90 (2013.01 - EP US)

Citation (search report)

See references of WO 2009141353A1

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DOCDB simple family (application)

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