

Title (en)

Apparatus and method for displacement of particles

Title (de)

Vorrichtung und Verfahren zur Verschiebung von Teilchen

Title (fr)

Dispositif et procédé de déplacement de particules

Publication

EP 1524675 A1 20050420 (FR)

Application

EP 04104982 A 20041012

Priority

FR 0350679 A 20031014

Abstract (en)

The displacement of a particle (10) putting into operation a device incorporating a substrate (4), a wave guide (2) and a network (6) formed on the wave guide, consists of: (a) injecting light with a wave length λ into the wave guide; (b) diffracting the light transmitted by the guide towards a medium (14) of nsuper index in which the particle is found. An independent claim is also included for a device for the displacement of a particle.

Abstract (fr)

L'invention concerne un procédé de déplacement d'une particule mettant en oeuvre un dispositif comportant un substrat (4), un guide d'ondes (2) et un réseau (6) formé sur le guide d'ondes, dans lequel : on injecte de la lumière de longueur d'onde λ dans le guide d'ondes, on diffracte la lumière transmise par le guide vers un milieu (14) d'indice nsup dans lequel se trouve la particule. <IMAGE>

IPC 1-7

G21K 1/00

IPC 8 full level

G02B 6/122 (2006.01); **B07B 13/04** (2006.01); **B82B 3/00** (2006.01); **G21K 1/00** (2006.01)

CPC (source: EP US)

G21K 1/006 (2013.01 - EP US)

Citation (search report)

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- [X] ROSENBLATT D ET AL: "RESONANT GRATING WAVEGUIDE STRUCTURES", IEEE JOURNAL OF QUANTUM ELECTRONICS, IEEE INC. NEW YORK, US, vol. 33, no. 11, 1 November 1997 (1997-11-01), pages 2038 - 2059, XP000725006, ISSN: 0018-9197
- [A] OGURA Y ET AL: "OPTICAL LEVITATION AND TRANSLATION OF A MICROSCOPIC PARTICLE BY USE OF MULTIPLE BEAMS GENERATED BY VERTICAL-CAVITY SURFACE-EMITTING LASER ARRAY SOURCES", APPLIED OPTICS, OPTICAL SOCIETY OF AMERICA, WASHINGTON, US, vol. 41, no. 27, 20 September 2002 (2002-09-20), pages 5645 - 5654, XP001130498, ISSN: 0003-6935

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