

Title (en)

HEAT ACTIVATED NANOMETER-SCALE PUMP

Title (de)

WÄRMEAKTIVIERTE PUMPE IM NANOMETERBEREICH

Title (fr)

POMPE A L'ECHELLE NANOMETRIQUE THERMOACTIVEE

Publication

**EP 1910217 A2 20080416 (EN)**

Application

**EP 06787919 A 20060719**

Priority

- US 2006028113 W 20060719
- US 70089405 P 20050719

Abstract (en)

[origin: WO2007012028A2] A pump is provided that includes a nanometer- scale beam that is suspended in a housing. The housing may include a number of apertures such that molecules can move in and out of the housing. The nanometer- scale beam may be suspended as a jump rope or as a cantilever. The movement of the nanometer- scale beam may be mechanically stopped from moving in a particular way (e.g. , towards a particular end of the housing) . Thus, for example, the beam and the stop work together to pump molecules in the direction that the beam bounces off the stop. The speed and movement of the nanometer- scale beam can also be influenced either electrostatically or electromagnetically . As such, the speed and direction that a working substance is pumped by a nanometer- scale beam may be electrically controlled.

IPC 8 full level

**B81B 3/00** (2006.01)

CPC (source: EP US)

**B81B 3/0051** (2013.01 - EP US); **F04B 19/00** (2013.01 - EP US); **F04B 19/006** (2013.01 - EP US); **B81B 2201/036** (2013.01 - EP US); **B81B 2203/0118** (2013.01 - EP US)

Citation (search report)

See references of WO 2007012028A2

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