

Title (en)

MICRODEVICE FOR CAPTURING PARTICLES, AND METHOD FOR CAPTURING, CONCENTRATING, OR SEPARATING PARTICLES USING THE SAME

Title (de)

MIKROVORRICHTUNG ZUM ABFANGEN VON PARTIKELN UND VERFAHREN ZUM ERFASSEN, KONZENTRIEREN ODER ABTRENNEN VON PARTIKELN DAMIT

Title (fr)

MICRODISPOSITIF POUR LA CAPTURE DE PARTICULES ET PROCÉDÉ DE CAPTURE, DE CONCENTRATION OU DE SÉPARATION DE PARTICULES L'UTILISANT

Publication

EP 3300805 B1 20220511 (EN)

Application

EP 17194232 A 20170929

Priority

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Abstract (en)

[origin: EP3300805A1] Provided is a device and a method with which particles such as rare cells in a sample can be captured precisely. The present disclosure relates to a microdevice (1) for capturing cells in a sample through dielectrophoresis, and the microdevice (1) includes an inlet (10), an outlet (12), and a flow channel chamber (11) that connects the inlet (10) and the outlet (12), in which the flow channel chamber (11) has an enlarged portion (14) in which a cross-sectional area of a flow channel (11) enlarges, and the flow channel chamber (11) is provided with an electric field generation means (13) disposed at least in the enlarged portion (14) or the vicinity of the enlarged portion (14). Also, the present disclosure relates to a method for capturing particles in a sample in the flow channel chamber (11) of the microdevice (1), and the method for capturing particles in a sample includes causing the electric field generation means (13) of the microdevice (1) to generate an electric field, and introducing the sample into the flow channel chamber (11) from the inlet (10) of the microdevice (1).

IPC 8 full level

B03C 5/02 (2006.01)

CPC (source: EP)

B03C 5/026 (2013.01)

Citation (examination)

- US 2006121555 A1 20060608 - LEAN MENG H [US], et al
- T. M?LLER ET AL: "A 3-D microelectrode system for handling and caging single cells and particles", BIOSENSORS AND BIOELECTRONICS, vol. 14, no. 3, 1 March 1999 (1999-03-01), pages 247 - 256, XP055108243, ISSN: 0956-5663, DOI: 10.1016/S0956-5663(99)00006-8

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