Title (en)

METHODS AND DEVICES FOR SEPARATING PARTICLES IN A LIQUID FLOW

Title (de)

VERFAHREN UND VORRICHTUNG ZUR TRENNUNG VON PARTIKELN IN EINER FLÜSSIGKEITSSTRÖMUNG

Title (fr)

PROCEDES ET DISPOSITIFS POUR SEPARER DES PARTICULES DANS UN ECOULEMENT DE LIQUIDE

Publication

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Application

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Abstract (en)

[origin: WO2004082840A1] The invention relates to methods and devices for separating particles (20, 21, 22) in a compartment (30) of a fluidic microsystem (100). According to the invention, a liquid (10) in which particles (20, 21, 22) are suspended is displaced in a pre-determined flow direction through the compartment (30), and a deviating potential is generated, causing at least part of the particles (20, 21, 22) to be displaced in a deviated direction in relation to the liquid. Furthermore, at least one focussing potential is generated, such that, under the effect of high-frequency electrical fields, at least part of the particles is displaced by dielectrophoresis, in the opposite direction to the deviated direction in relation to the liquid. Particles with different electric, magnetic or geometric properties are guided in different flow regions in the liquid.

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