

Title (en)  
FLUID TRANSFER APPARATUS

Title (de)  
FLÜSSIGKEITSÜBERTRAGUNGSVORRICHTUNG

Title (fr)  
APPAREIL DE TRANSFERT DE FLUIDE

Publication  
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Application  
**EP 09814824 A 20090922**

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Abstract (en)  
The invention relates to an apparatus for transferring a fluid, an object to be transferred, in the vertical or horizontal direction. More particularly, the apparatus of the present invention has a surface formed into a pattern recursively alternating in a fluid transfer direction such that the surface of the apparatus has a contact angle different from that of the fluid, and the fluid is transferred by the hydrodynamic force generated by the difference of the contact angles. The fluid transfer apparatus of the present invention, more particularly, a microfluidic tube for fluid transfer, minimizes the consumption of energy of external sources including an external device, physical vibration from wind power, force from an electromagnetic field generated by static electricity or an electric field, physical force, vibration from thermal energy, or the like, and enables the fluid to be transferred in the vertical or horizontal direction without using a pump.

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