

MICROPUMP HAVING A CAPILLARY STRUCTURE, AND USE

ABSTRACT

Known micropumps transport liquid between a supply region and a working region exclusively by means of a capillary structure, no gas region having to be overcome. In the case of the micropump (01) claimed with the invention, the gas region is bridged by means of the capillary structure (17) and a continuous liquid exchange with constantly minimal volume is made possible. A capillary pipette (04), having a closed pipette tip (06) and an open pipette inlet (07), is used. The capillary structure (17) extends therebetween, preferably in the form of a rod (18) made of glass. The working region (03) of the micropump (01), which has a very small volume (400 μ l), lies above the pipette tip (06). The gas region (09), which adjoins the supply region (02), lies above the working region. The supply region is preferably a region (14) of an open body of water (15). In order to prevent the ingress of particles (19) and organisms, the pipette inlet (07) is covered by a fine-meshed filter (10), which touches the rod (18). The micropump (01) is suitable particularly for measuring the fluorescence of living organisms (23) which are accumulated in the working region (03) and which increase their fluorescence when the liquid (13) is contaminated.

[Figure 2]