

Title (en)
DOUBLE SYRINGE FOR SUPPLYING A FLUID INTO A MICROFLUIDIC SYSTEM

Title (de)
DOPPELSPRITZE FÜR DIE ZUFÜHRUNG EINER FLÜSSIGKEIT IN EIN MIKROFLUIDIKSYSTEM

Title (fr)
DOUBLE SÉRINGUE POUR AMENER UN LIQUIDE DANS UN SYSTÈME MICRO-FLUIDIQUE

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Abstract (en)
[origin: WO2016131537A1] The invention relates to a double syringe (200) for supplying a fluid (202) into a microfluidic system comprising a cylindrical outer chamber (204) which defines a storage space (208) for receiving the fluid (202) to be supplied, a cylindrical inner chamber (206) arranged inside the outer chamber (204), which inner chamber in the distal cylinder cover area (212) thereof has an outlet opening (210) for connecting to the microfluidic system, and which has a fluidic connection to the outer chamber (204) via through-holes (218), an inner piston (216) which is axially displaceable in the inner chamber (206), which inner piston in a closed position closes the through-holes (218) on the inner chamber side and in a release position releases the through-holes (218) and enables a fluid flow from the outer chamber into the inner chamber, and an annular piston (214) which is displaceable in the outer chamber (204) axially to the distal end of the outer chamber, i) which in a proximal supply position closes off the storage space (208) for the fluid to be supplied, ii) through the displacement whereof to the distal end, a fluid (202) introduced in the storage space (208) is pressed via the through-holes (218) into the inner chamber (206) if the inner piston (216) is in the release position thereof, and iii) which in a distal closed position closes the through-holes (218) from the outer chamber side and hence enables a retraction of fluid from the microfluidic system into the inner chamber (206) by an axial movement of the inner piston (216) to the proximal end.

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