

ELECTRO-OSMOTIC PUMP, METHOD OF MANUFACTURING ELECTRODE, FLUID PUMPING SYSTEM USING THE SAME, AND OPERATION METHOD THEREOF

ABSTRACT

An electro-osmotic pump according to an embodiment of the present disclosure includes: a membrane that allows fluid movement; and a first electrode and a second electrode respectively provided on both sides of the membrane. The first electrode and the second electrode are formed of an impermeable substrate material and an electrode material coated thereon and have at least one fluid pathway. The impermeable substrate material is a plate-shaped substrate including at least one of a conducting material, a semiconducting material and a non-conducting material.

FIG. 2A