Abstract

A SIMULINK model for the simulation of the valveless micropump is developed. In this model the operating parameters namely voltage, diaphragm diameter and thickness are considered for simulation. To optimize the pump performance, three commonly used materials are considered for diaphragm and their performance for different diameters and thickness’s is studied. Results
obtained through the developed model compare well with earlier results. The volumetric discharge versus pressure difference is used for characterizing the pump performance.

Reference


Index Terms

Computer Science
Communications

Key words

Valveless micropump
SIMULINK model
optimization