

Towards the Integration of a Micro Pump in μ TAS

Authors : Y. Haik

Abstract : The objective of this study is to present a micro mechanical pump that was fabricated using SwIFT™ microfabrication surface micromachining process and to demonstrate the feasibility of integrating such micro pump into a micro analysis system. The micropump circulates the bio-sample and magnetic nanoparticles through different compartments to separate and purify the targeted bio-sample. This article reports the flow characteristics in the microchannels and in a crescent micro pump.

Keywords : crescent micropumps, microanalysis, nanoparticles, MEMS

Conference Title : ICMNSCLS 2017 : International Conference on Micro-Nano Systems for Chemistry and Life Sciences

Conference Location : Istanbul, Türkiye

Conference Dates : December 21-22, 2017