Optimization on the preparation of microfluidic channel using dry film resist

ABSTRACT

In this work, microfluidic channel was explored using dry film resist (DFR) method. Many of previous studies used SU-8 and PDMS as the medium to fabricate microfluidic channel for making a microfluidic chamber. Microscope slides were used as the substrate for the applications with bio components since it is inert and stable. The DFR serves to be the spacer to form the channel. Several processes which include cleaning, drying, prebaking, laminating, UV exposure and finally post-baking were involved in channel making. These processes need to be optimized in order to obtain a good chamber. Silicon rubber and UV glue were used to seal the chamber system to prevent any leakages.

Keyword: Dry film resist; Glass substrate; Microfluidic channel