

Bachelor thesis



Finding the fs-laser threshold for ablating the glass

Description

Microtechnology has a great advantage and application in different areas such as electronics, biomedical, microfluidics and etc. The design and fabrication of these miniaturized systems have been an interest in the industry and also among researchers. There are different methods available to fabricate microsystems, and optimizing the parameter regarding each method has always been very crucial in order to achieve the most desirable dimensions and design. One of the widely used methods is the Femto-second ablation method.

The aim of this project is to optimize the parameter related to the ablation of PDMS and glass to fabricate a microchannel and at the end, find the threshold parameter in the fs-laser device which is located in IMT. In this project, one may work with a high-tech device, and gain a lot of information about micromachining and microfluidics.

Fields of activity

- Reviewing literature
- · Parameter study using fs-laser device
- Fabrication of the microchannel
- · Analysing the quality of the fabrication

Requirements

- Fluent English
- · Motivation and enthusiasm to work with microsystems

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