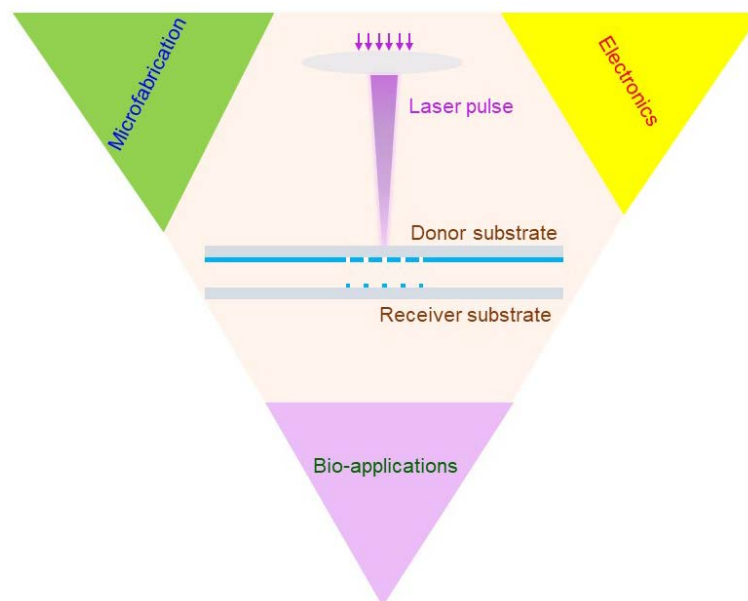


Laser-induced forward transfer for different materials printing

Master Project / Semester Project

(Section: microengineering, microfabrication)

Laser-induced forward transfer (LIFT) is a digital manufacturing technology which allows printing materials in a serial manner following a predesigned pattern. It is a noncontact direct-write technique that enables the deposition of small volumes of material into user-defined, high-resolution patterns with a wide range of structural and functional materials without the use of masks or molds. Compared to other printing techniques, LIFT is very competitive due to its mask-free, non-contact, material diversity, nozzle-free nature. Among all these advantages, LIFT's ability to transfer a broad variety of materials gain wide popularity because it would not be limited by the choice of materials. The goal of this project is to use LIFT to print/transfer prefabricated microstructures/devices, to study their transferability and assess the functionality after the transfer.



Work description:

- Preparation of prefabricated micro-structures/devices on the donor substrate.
- LIFT printing/transfer using the prepared samples.
- Characterization of optical and electrical properties of the transferred structures.
- Application of the printed structures.

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