

Stencil lithography

Semester Project / Master Project

(Section: microengineering, material science)

Stencil lithography is a high resolution shadow-mask technique used for structuring micro and nanometer structures. The principal of it is to use shadow mask (stencil) to locally define atoms or molecules onto substrate. It serves a lot of advantages such as allowing for processing on biocompatible and biodegradable substrates due to its resistless property, easy manipulation and implementation.

The goal of this project will be systematically studying the behavior of the deposited biodegradable metals on biodegradable substrates for implantable applications by using stencil lithography.



Work description:

- Design and fabrication of stencil test keys.
- Hands-on e-beam evaporator with stencil (LMIS1 lab facilities).
- Geometrical and electrical characterization of deposited biodegradable structures.

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