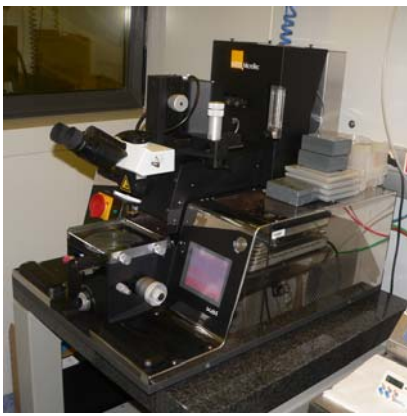


Mask aligner



UV-Photolithography for microfabrication

UV-photolithography is widely used for MEMS, microfluidics and optoelectronics applications. The MJB4 can handle standard and non-standard substrates, like semiconductors compounds, glass, foils, distorted and drilled substrates, etc. By choosing the appropriate UV-sensitive photoresist, 1 μm resolution can be achieved.

Technical specifications

- Wavelength range: 305-450 nm
- Exposure source: Hg lamp, 350 W
- Optical microscope with 10x objective for diffraction reducing optics
- Lamp control modes:
 - Constant power
 - Constant intensity
- Exposure modes:
 - Soft Contact (variable mechanic pressure)
 - Hard Contact (variable mechanic pressure + additional nitrogen pressure)
- Height adjusting range between 0 and 50 mm.
- Substrate size: from 10 mm to 100 mm (4") in diameter with thicknesses between 0.1 and 4 mm
- Mask size: up to 125 mm (5") in diameter
- Minimum resolution print down to 2 μm using Cr mask

Material available*

- Cr masks can be fabricated at the MicroFab Space under demand (ask for a quote on microfab@ibecbarcelona.eu)
- Photoresists: AZ 5214, AZ 1512, SU8 2010, SU8 2050, SU8 3050, SU8 2100
- Adhesion promoters: TI prime, OmniCoat
- Developers: AZ 400K developer, AZ 726MIF developer, SU8 developer
- Removers: AZ 100 remover, Remover PG

*Possibility to implement new materials under demand.