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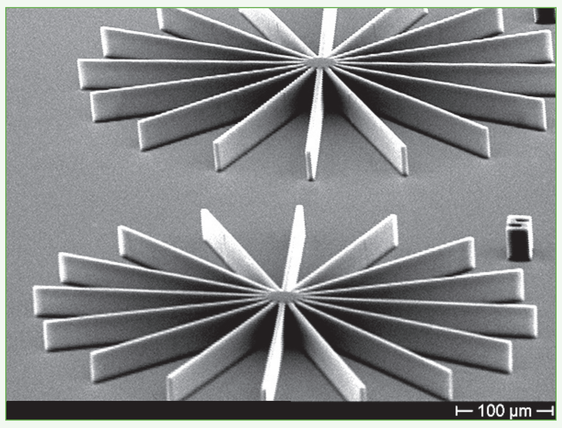
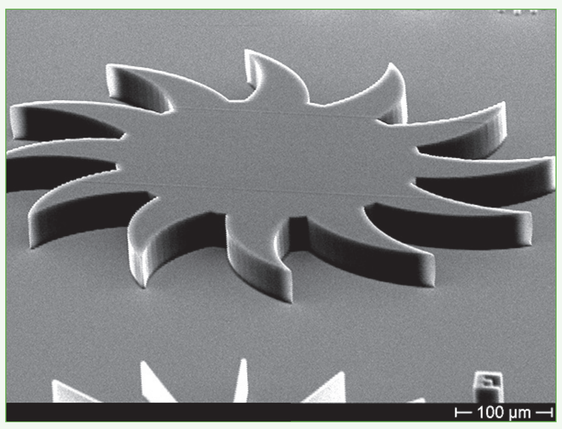
mr-DWL — Negative Tone Photoresist Series

For Direct Laser Writing (DLW) @ 405 nm & Two Photon Polymerization (2PP)

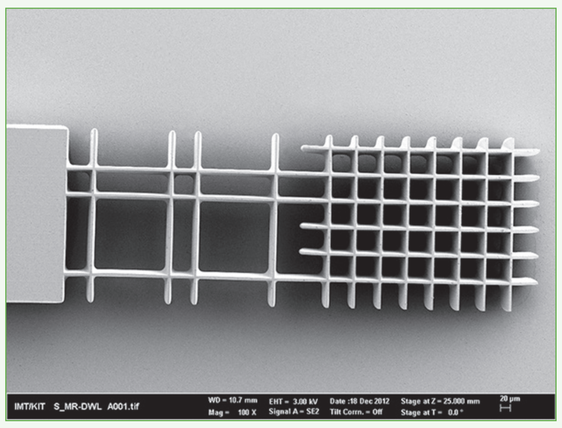
DLW



Film thickness 50 µm, 5 µm Star pattern, AR: 10

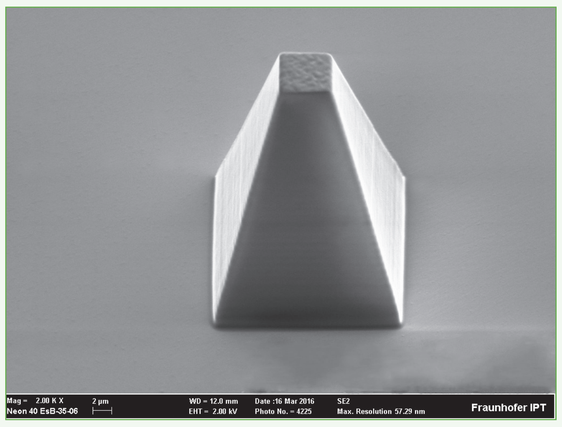


Film thickness 50 µm, wheel pattern

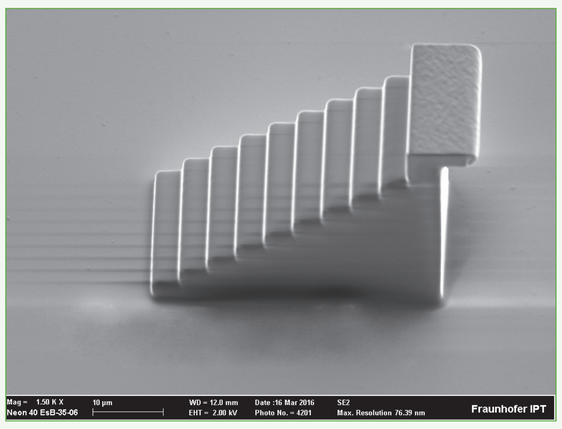


Film thickness 150 µm, AR: ≥ 10 [1]

2PP



40 µm thick mr-DWL, pyramid pattern [2]



40 µm thick mr-DWL, rod pattern [2]

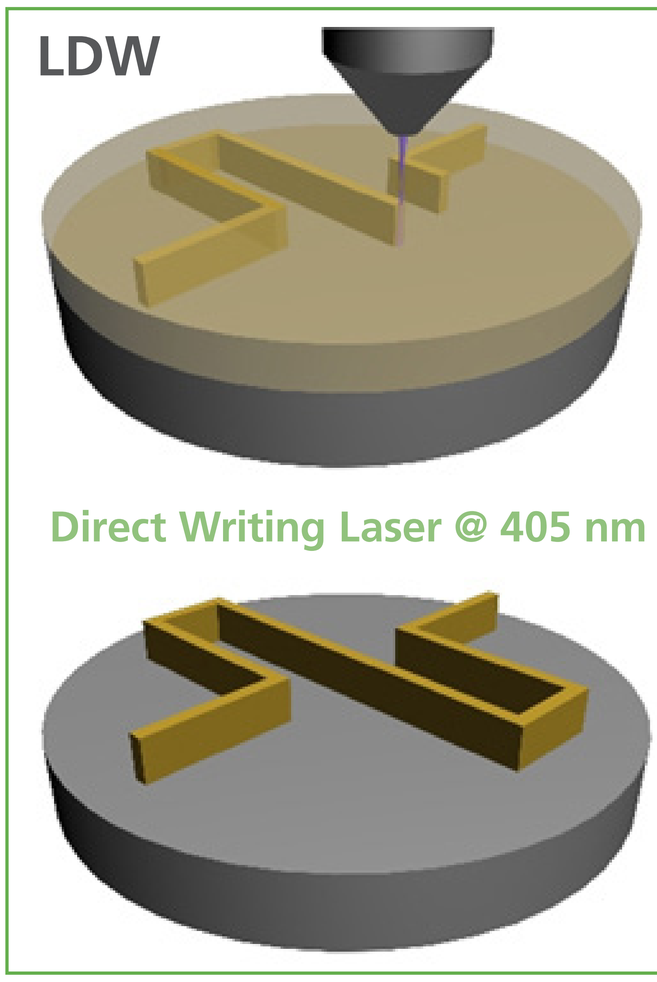
Unique features

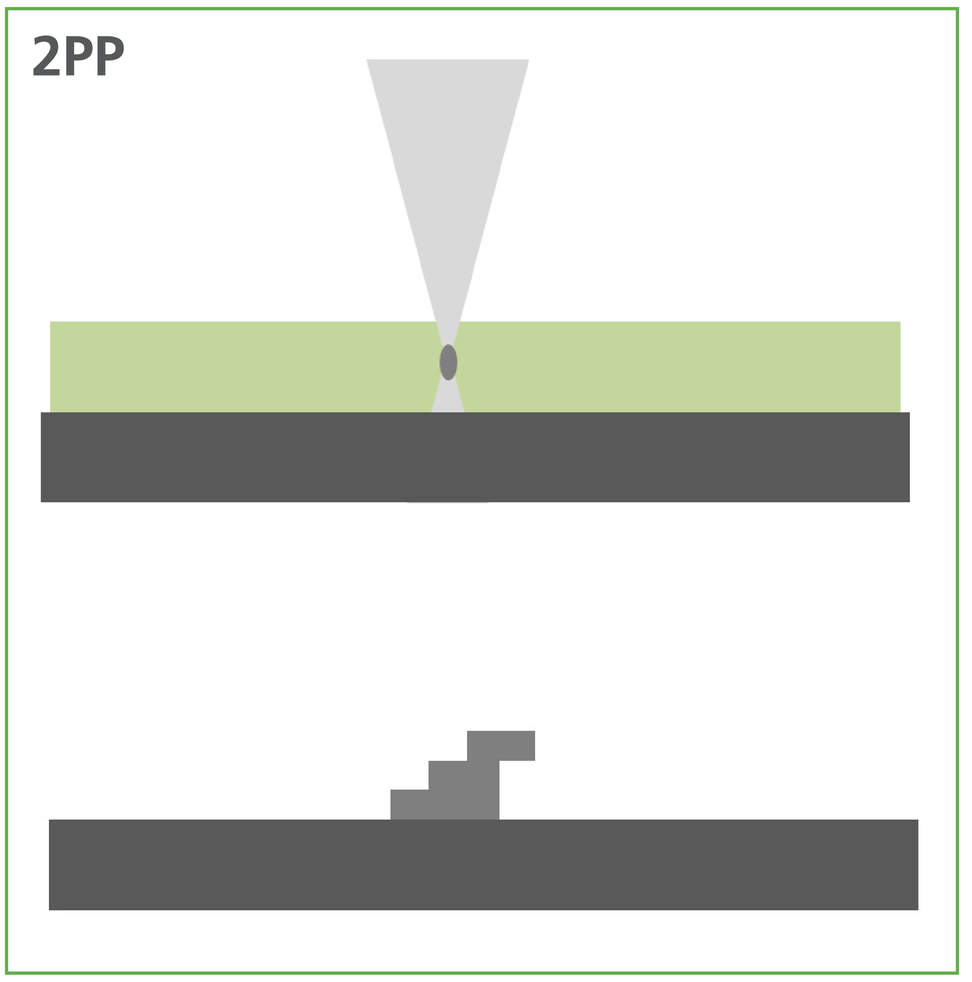
- Specifically designed for exposure wavelengths above 400 nm
- Suitable for DLW (e.g. @ 405 nm) & 2PP
- High sensitivity
- Excellent thermal and chemical stability
- High wet and dry etch stability

Applications

- Fast and contactless prototyping by DLW & 2PP
- Etch mask for wet and dry etch processes
- Mould for electroplating
- Mould for stamp fabrication by thermal or UV moulding
- Optical applications in micro systems technology

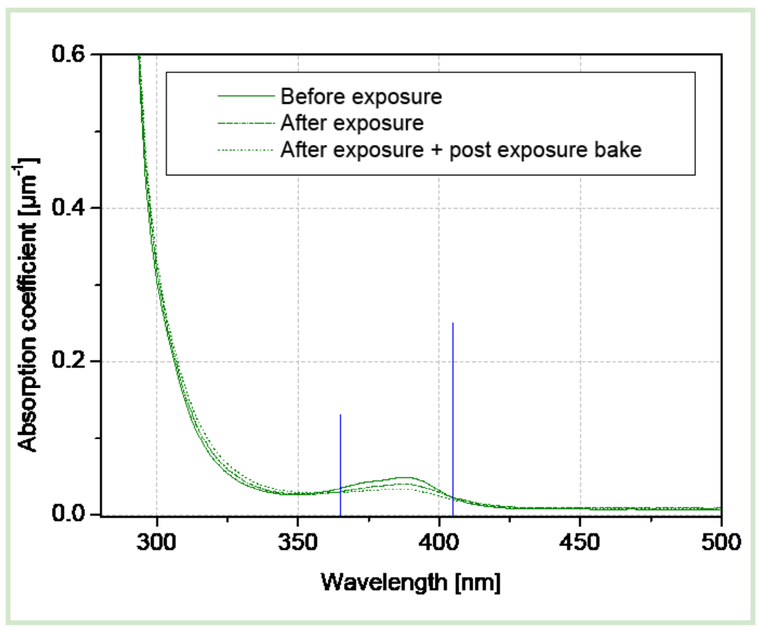
Process schematics

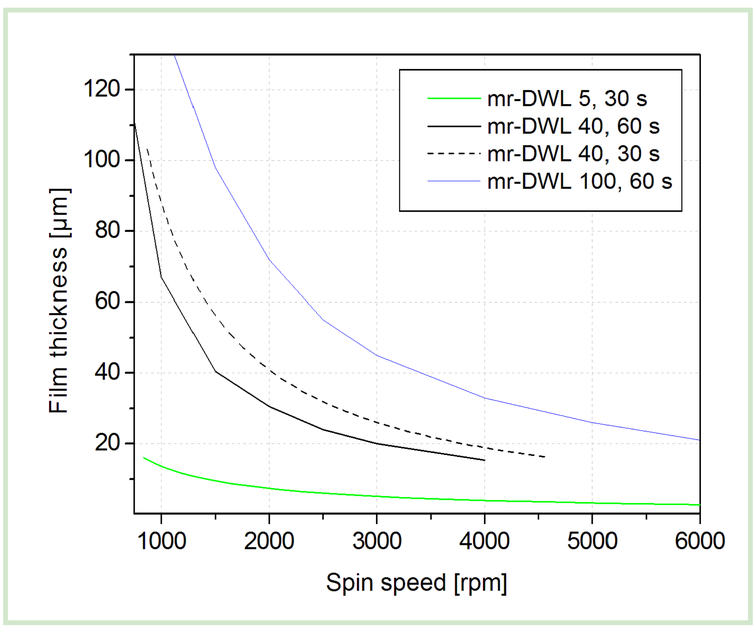




Technical data

Resist		mr-DWL 5	mr-DWL 40	mr-DWL 100
Film thickness	µm	3 - 12	20 - 100	20 - 150





[1] Pictures – Courtesy of Heidelberg Instruments/ Germany and [2] Fraunhofer IPT Aachen/ Germany