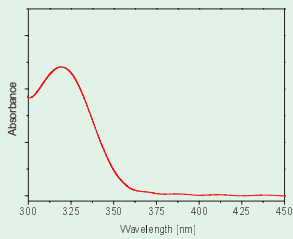
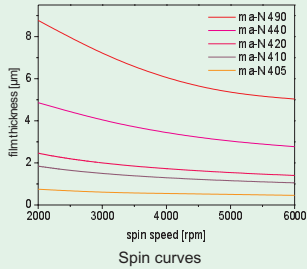


# ma-N 400 and ma-N 1400 Photoresists for Lift-Off Process

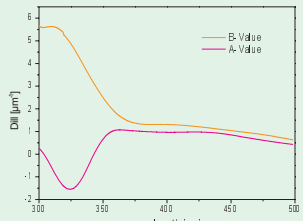
The ma-N 400 and ma-N 1400 are an innovation in negative tone photoresists for flexible use for proximity and contact exposure. Full application compatibility with processing of conventional positive tone photoresists is guaranteed. Adjustable negative sidewalls can be created by a simple lithographic process. The generation of more than 1000 nm metal structures by the lift-off process is achievable.

## Physical Properties

### ma-N 400

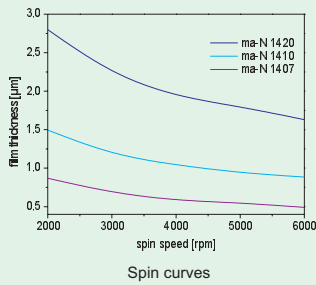


### UV sensitivity

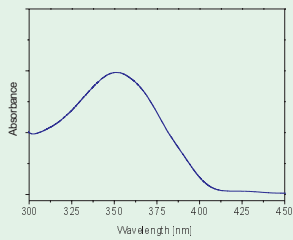


### Dill Parameters

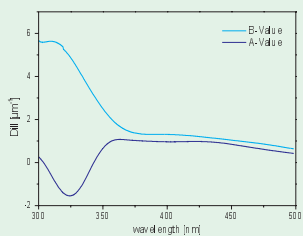
### ma-N 1400



### Spin curves

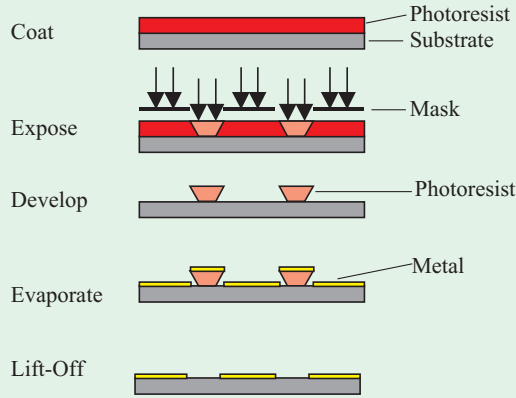


### UV sensitivity



### Dill Parameters

## Fast Lift-Off Process with ma-N 400 or 1400

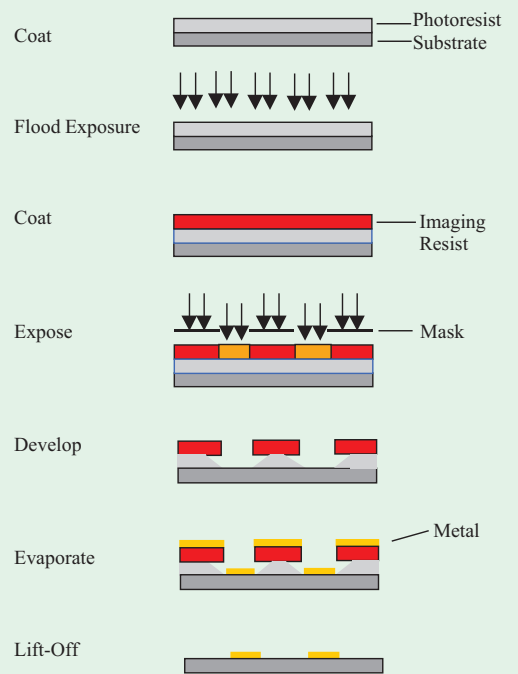


### Advantages

- full compatible to the positive tone type
- simple process
- high etch resistance
- easy to lift-off
- easy to remove
- high reproducibility

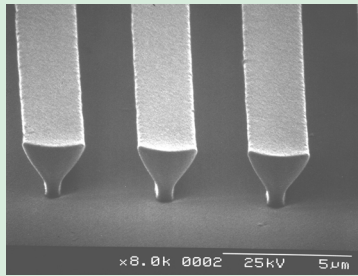


## Conventional Lift-Off Process with two Positive Resists

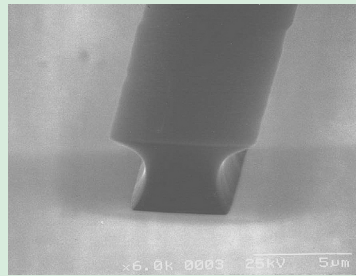


## Resist Patterning

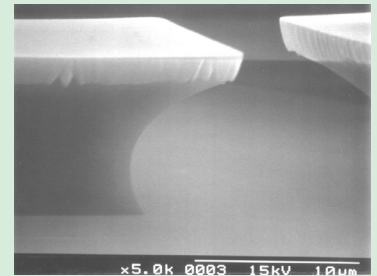
These negative tone photoresists are sensitive in the UV 300 and UV 400 range which is essential for the preparation of submicron geometries. Because of the easy handling of manufacture of undercut pattern profiles these photoresists are favoured for the lift-off technique. The undercut is adjusted by exposure dose and developing process. The resist is developed with aqueous-alkaline developer. Due to their etching resistance in the plasma etching process as well as in acidic and alkaline wet-chemical etching, these negative tone resists have a sufficient galvanic stability in acidic and alkaline electrolytic bathes. The process is full compatible to the positive tone type.



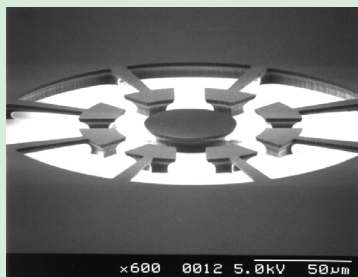
Resist thickness: 2 μm



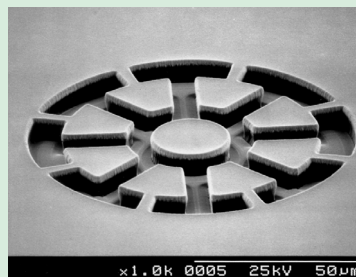
Resist thickness: 4 μm



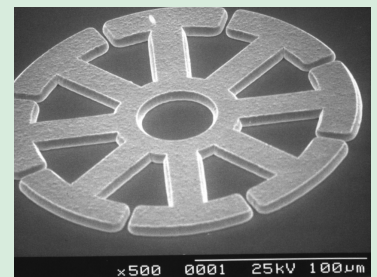
Resist thickness: 9 μm



Resist thickness: 9 μm



Deposited silver on a resist pattern



Deposited silver