KL IR Series Photoresist

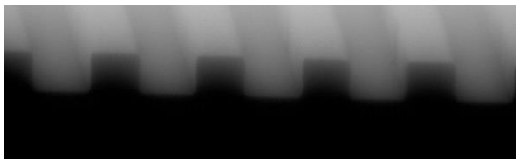
Image Reversible Resist

For i-Line, broadband and g-Line exposures

Negative Resist Mode Process Conditions	
Softbake	105 C for 90 seconds
Exposure	Broadband, i-line, g-line
Reversal Bake (critical step)	130 C for 90 seconds
Flood Exposure	150 mJ/cm2 (broadband)
Development	0.26N TMAH
Hardbake (optional)	130 C for 60 seconds
Removal	NMP / DMSO based strippers

Example 1: Negative tone Process

Film Thickness	1.5 microns
Broadband exposure	70 mJ/cm2
Develop time	60 seconds puddle (recommended)

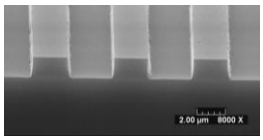


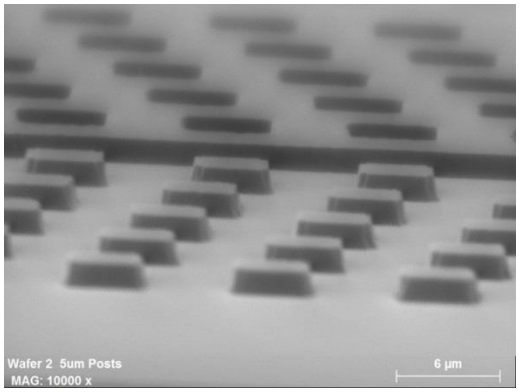
2 micron line/space

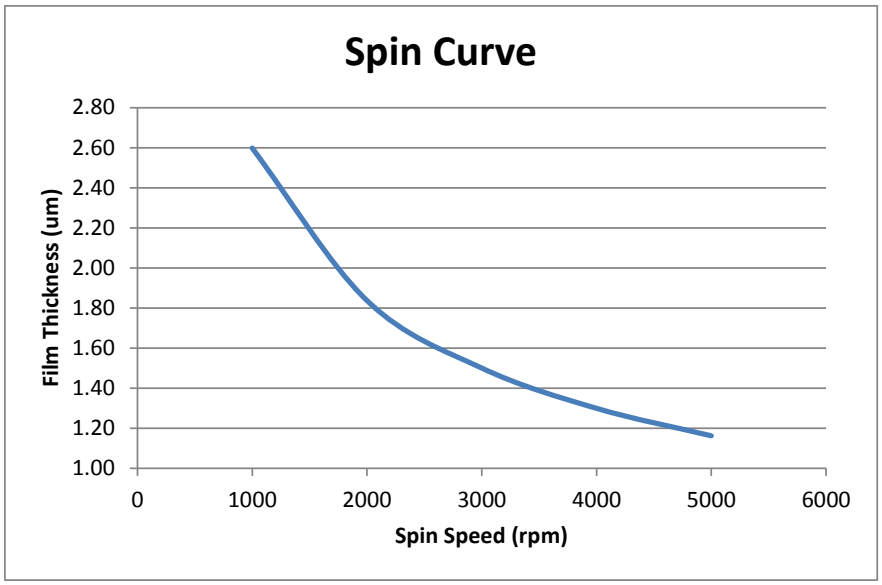
Positive Resist Mode Process Conditions	
Softbake	105 C for 90 seconds
Exposure	Broadband, i-line, g-line
PEB	115 C for 60 seconds
Development	0.26N TMAH develop
Removal	NMP or DMSO based strippers

Example 2: Positive tone Process

Film Thickness	1.5 microns
Broadband exposure	~70 mJ/cm2 at 1.5 um FT (broadband)
Develop time	60 seconds puddle (recommended)



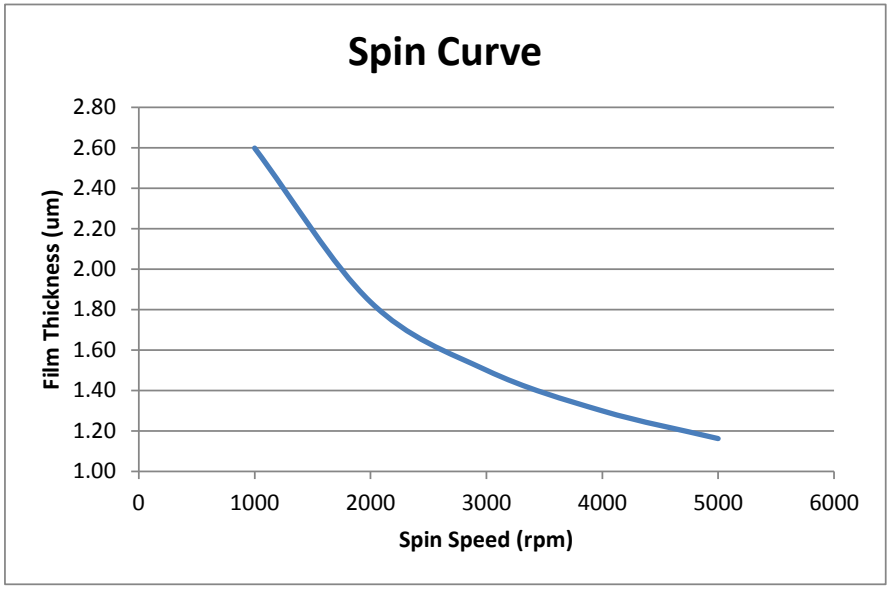




Formulary can be easily adjusted to modify spin curve.

KL IR Lift-Off Photoresist

Image Reversible Resist with Negative Lift-off Profile

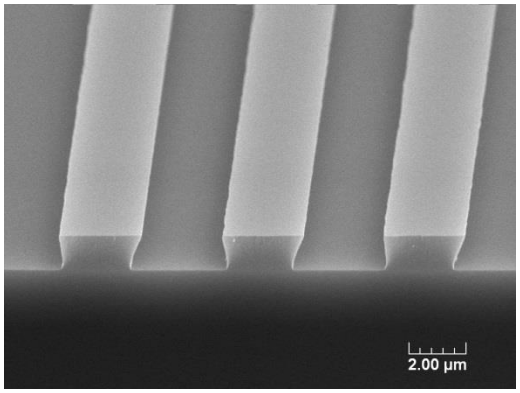


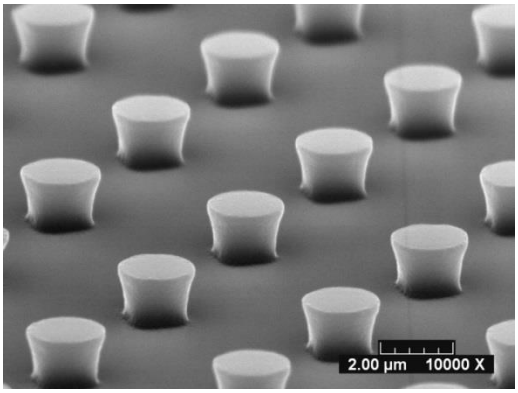
Formulary can be easily adjusted to modify spin curve.

Positive Resist Mode Process Conditions	
Softbake	105 C for 90 seconds
Exposure	Broadband, i-line, g-line
PEB	115 C for 60 seconds
Development	0.26N TMAH
Removal	NMP / DMSO based strippers

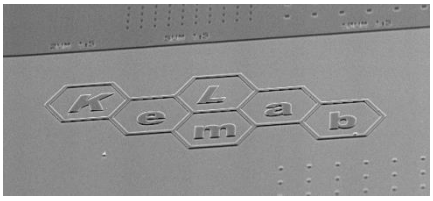
Negative Lift Off Resist Mode Process Conditions	
Softbake	105 C for 90 seconds
Exposure	Broadband, i-line, g-line
Reversal Bake (critical step)	130 C for 90 seconds
Flood Exposure (non-critical)	150 mJ/cm2 (broadband)
Development	0.26N TMAH
Hardbake (optional)	130 C for 60 seconds
Removal	NMP / DMSO based strippers

Example: Negative tone Lift-Off Process

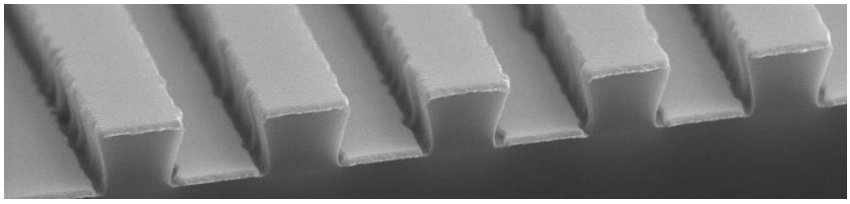




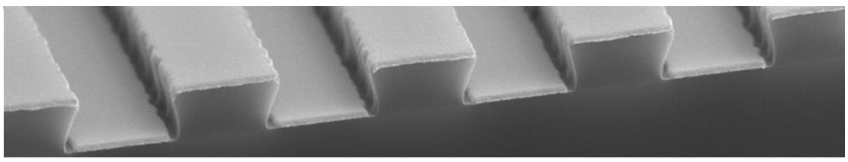
Film Thickness	1.5 microns
Broadband exposure	100 mJ/cm2
Develop time	45 seconds puddle (recommended)



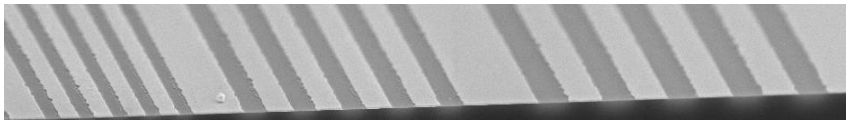
Example: Gold Deposition & Lift Off Process



2 µm line/space after E-beam metal deposition



3 µm line/space after E-beam metal deposition



2, 3, 4 µm dense line/space after lift off

Film Thickness of photoresist	1.5 µm
Film Thickness of Gold	150 nm
Adhesion Layer	Ti