THHMR-iP5680 HP
I-line Photoresist

Evaluation Conditions

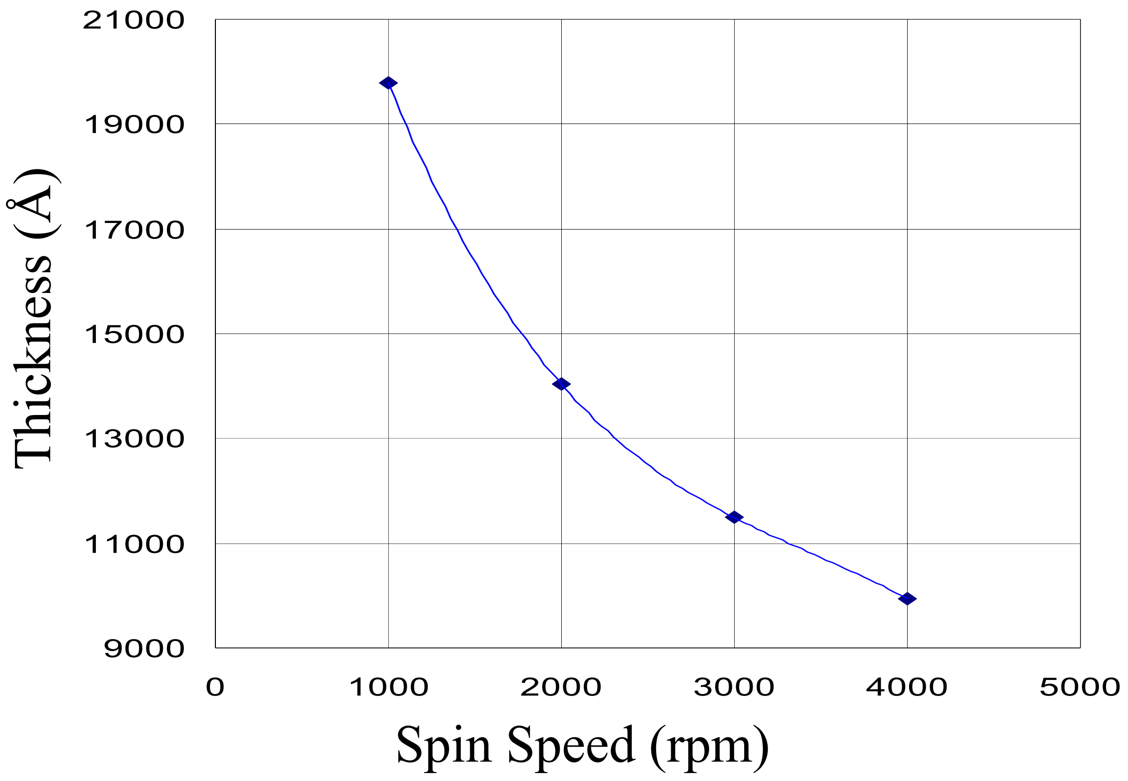
THMR-iP5680 HP

Substrate	Si (HMDS treatment)
Thickness	1.05 µm (E_{max})
Prebake	90ºC-90s
Exposure tool	Nikon NSR-2205i10D (NA=0.57 σ=0.6)
Reticle	Binary
PEB	110ºC-90s
Target CD	0.6 µm 1:1 L/S
Developer	NMD-W 2.38% 60s puddle

Spin Speed Curve

THMR-iP5680 HP

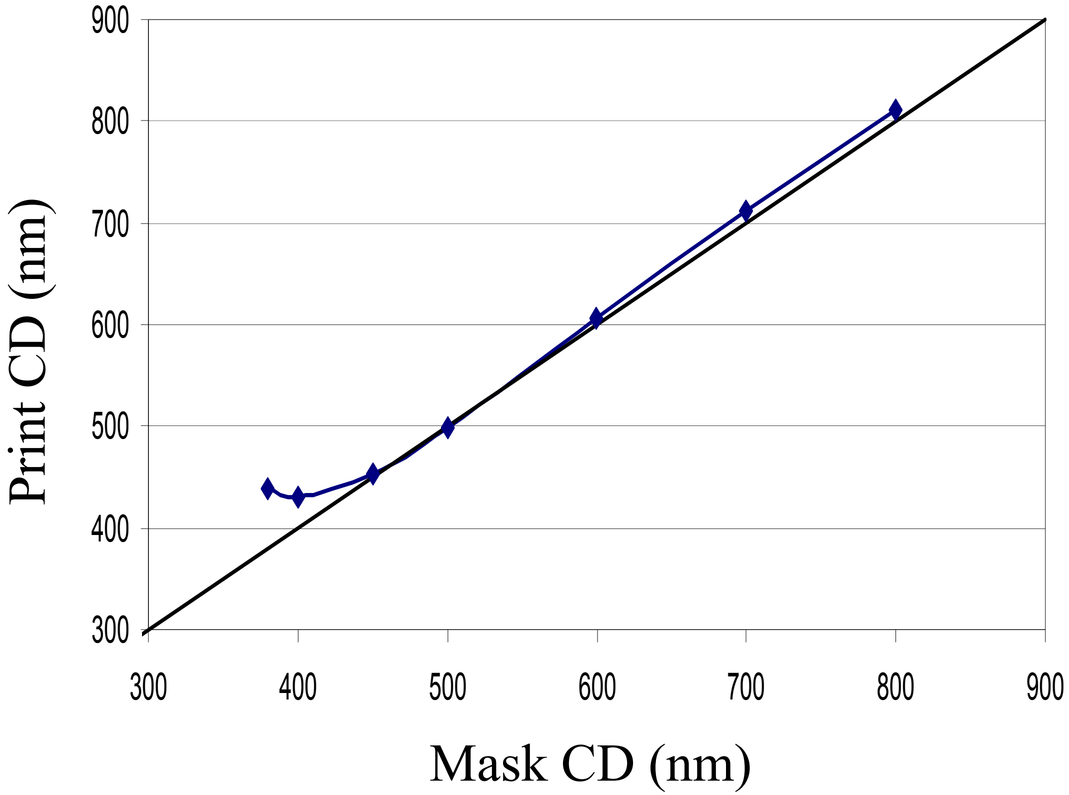
Viscosity = 8 cP



Mask Linearity

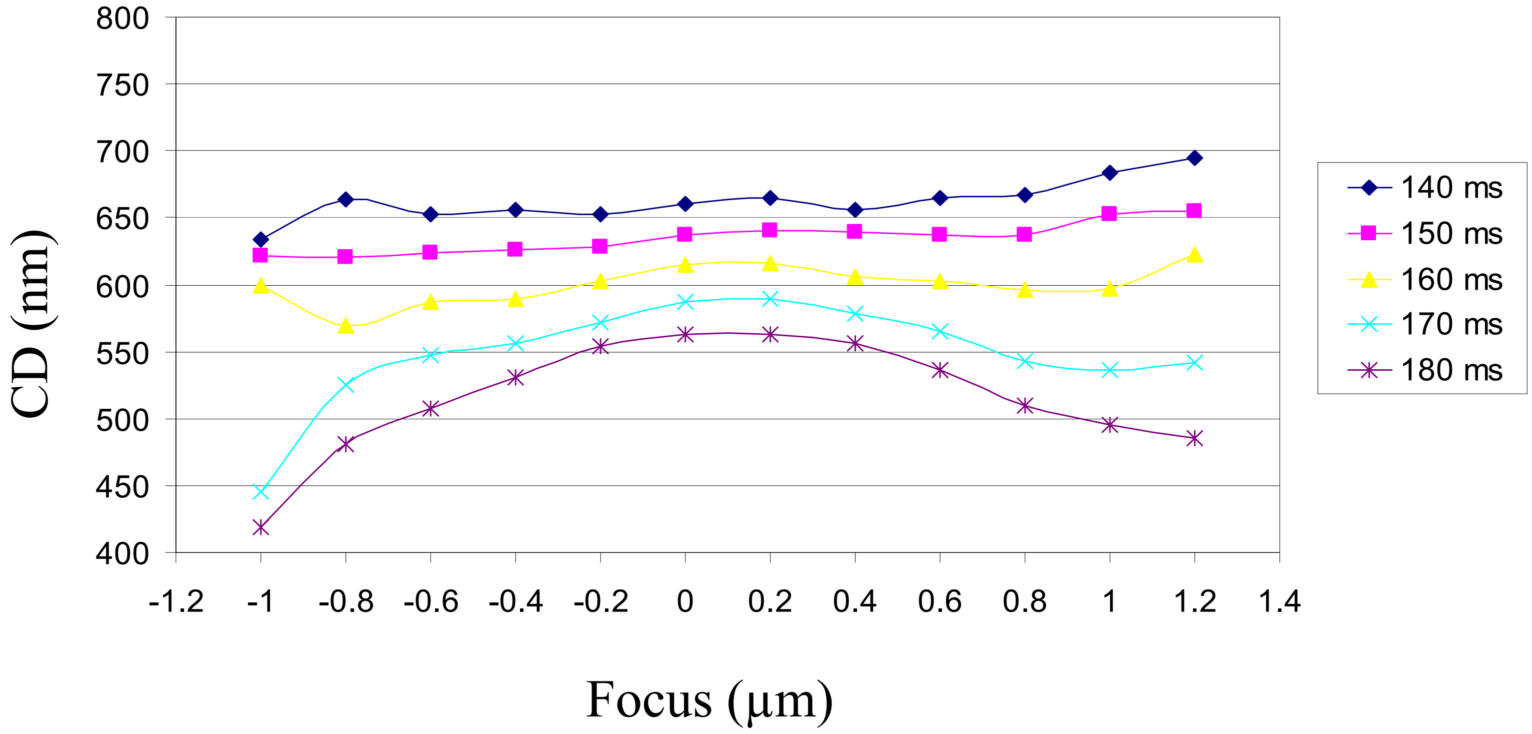
THMR-iP5680 HP

Target CD = 0.6 µm, exposure dose = 160 ms



Depth of Focus

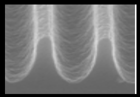
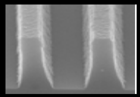
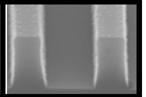
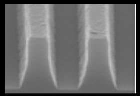
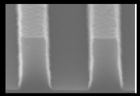
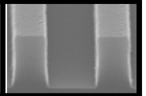
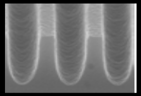
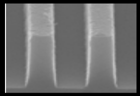
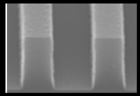
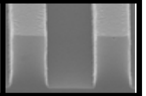
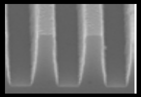
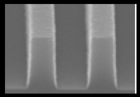
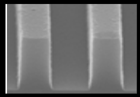
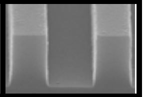
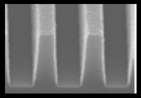
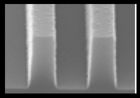
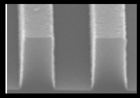
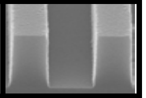
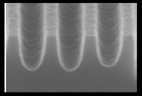
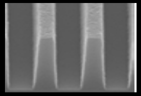
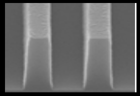
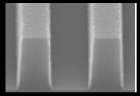
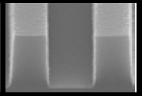
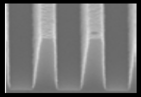
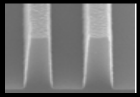
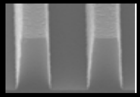
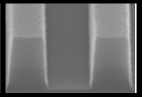
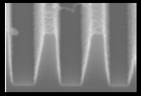
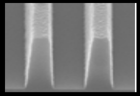
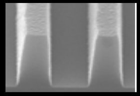
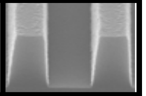
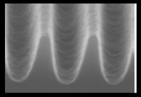
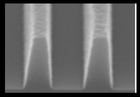
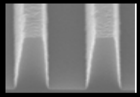
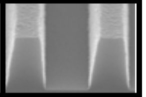
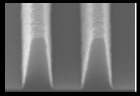
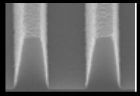
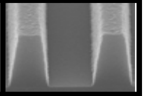
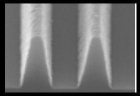
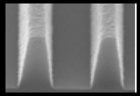
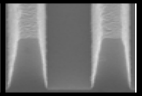
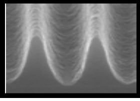
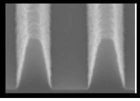
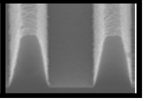
THMR-iP5680 HP
Target CD = 0.6 µm



Depth of Focus Pictures

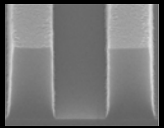
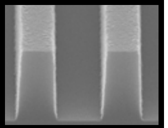
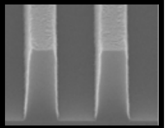
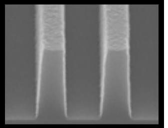
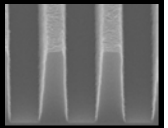
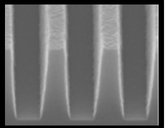
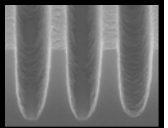
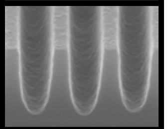
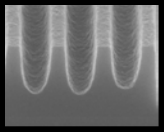
26-WE4C03-00

THMR-iP5680 HP
Target CD = 0.6 µm
Exposure dose = 160 ms

	0.32 µm	0.4 µm	0.5 µm	06 µm	0.7 µm
-1.0 µm					
-.8 µm					
-.6 µm					
-.4 µm					
-.2 µm					
0					
.2 µm					
.4 µm					
.6 µm					
.8 µm					
1.0 µm					
1.2 µm					

Resolution Limit

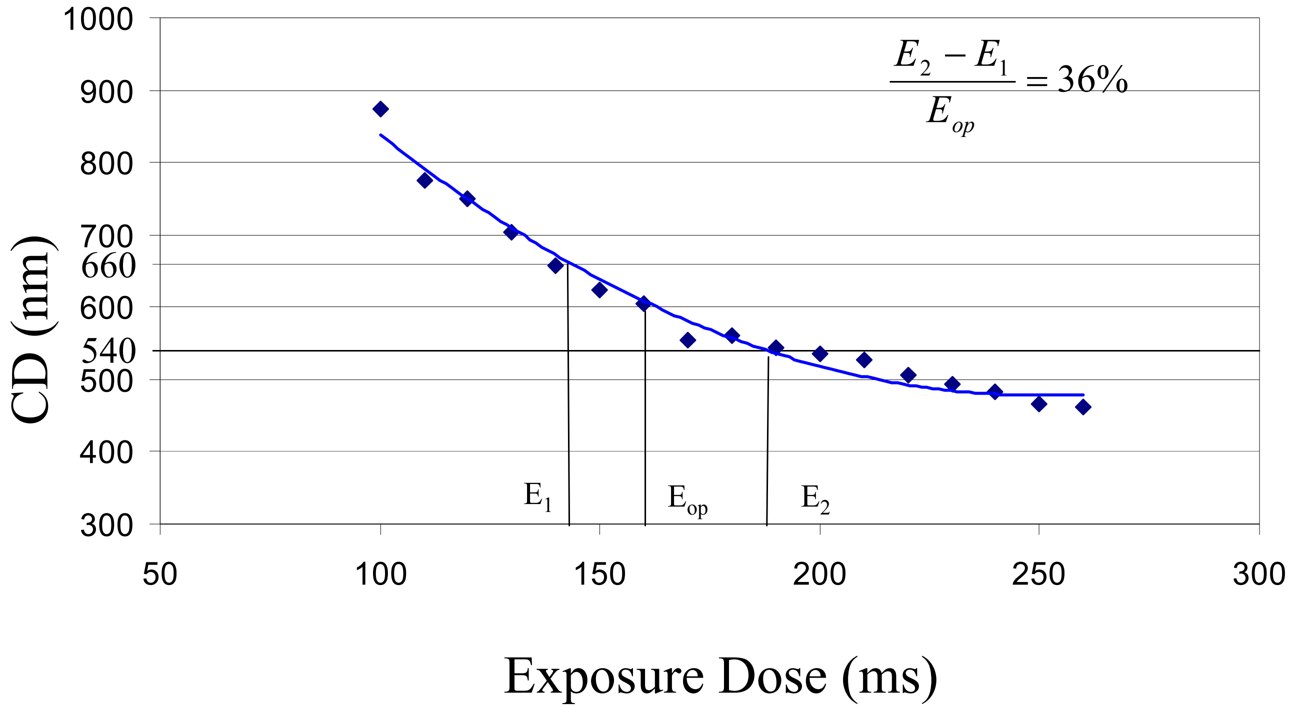
THMR-iP5680 HP
Target CD = 0.6 µm
Exposure dose = 160 ms

	0 focus
0.7 µm	
0.6 µm	
0.5 µm	
0.45 µm	
0.4 µm	
0.38 µm	
0.36 µm	
0.35 µm	
0.32 µm	

Exposure Latitude

THMR-iP5680 HP

Target CD = 0.6 µm, exposure latitude margin = 36%



$$\frac{E_2 - E_1}{E_{op}} = 36\%$$