Isolated Post Processing on Si using nLOF 2020.

Process Details:

-HMDS spin @ 5K RPM for 60 sec.

- NLOF2020 spin @5k RPM for 60sec.

- 110C “soft”-bake for 60sec.

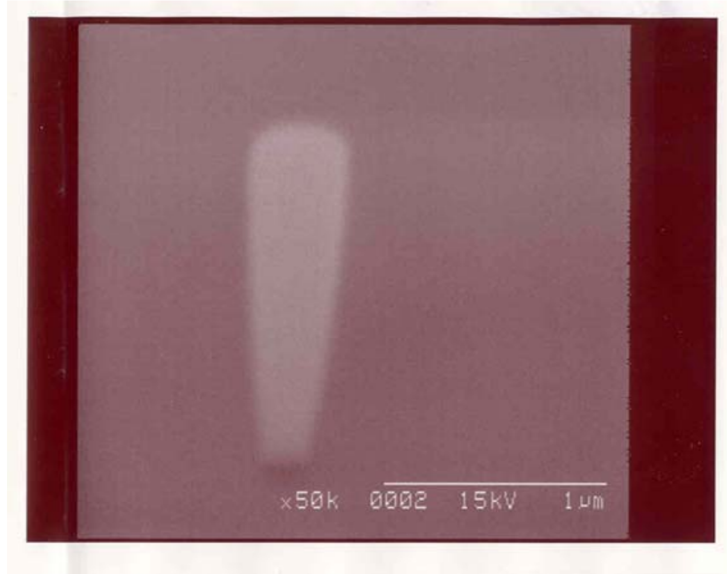
- exposure time varied for each image, Focus Offset -6

- 113C post exposure bake for 60sec.

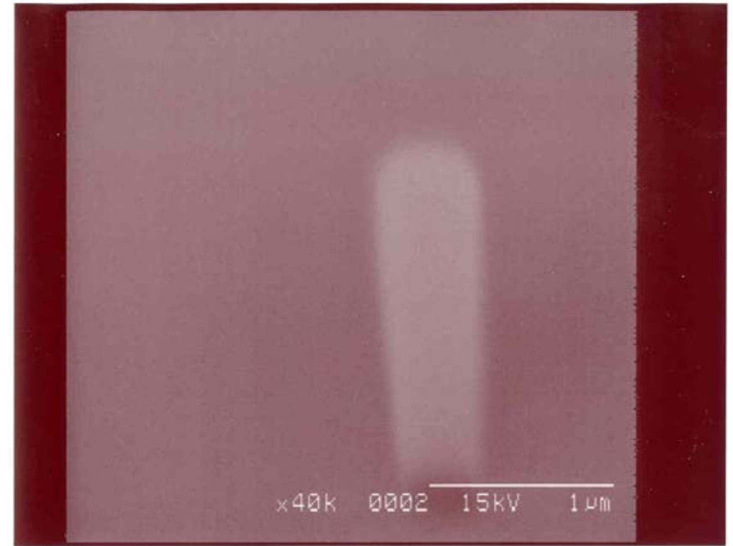
- MF701 develop for 90sec.

- 120C Hardbake for 120sec.

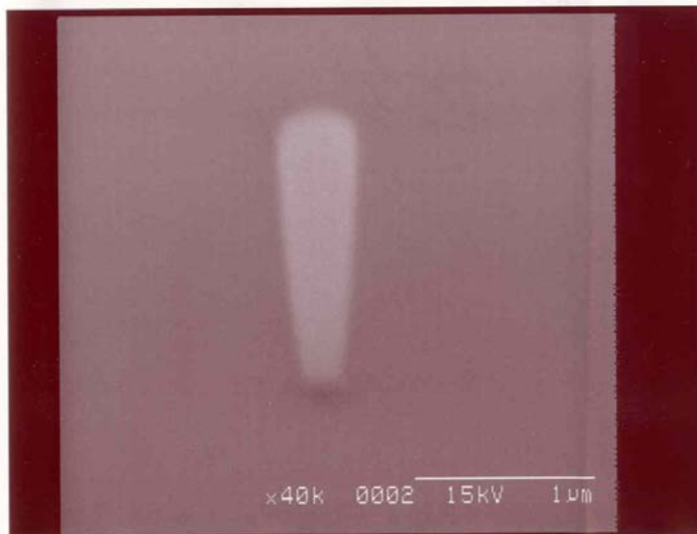
Exposure: 0.4sec. , Mask Opening diameter: 0.5um



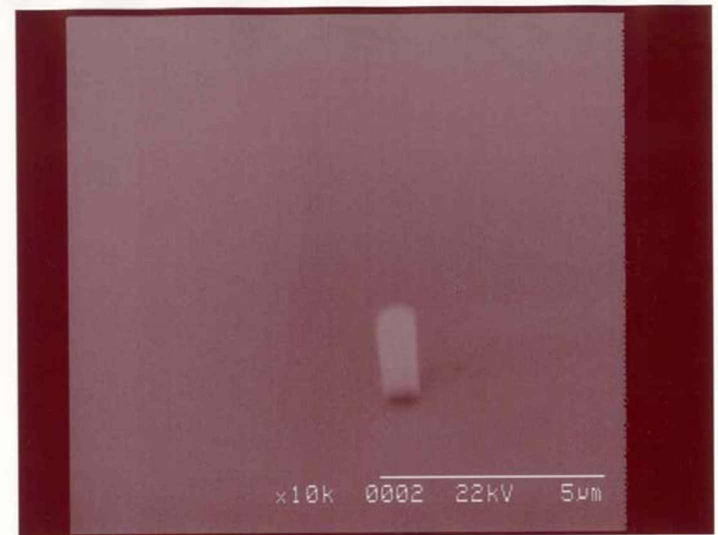
Exposure: 1.8sec. , Mask Opening diameter: 0.5um



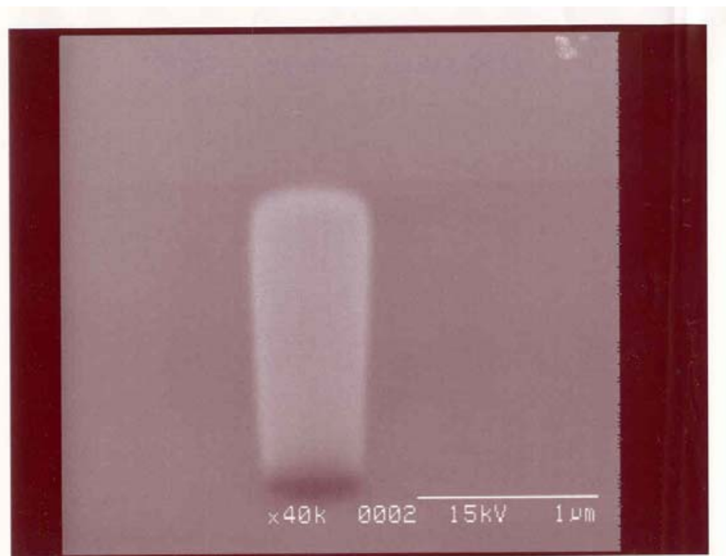
Exposure: 0.8sec. , Mask Opening diameter: 0.5um



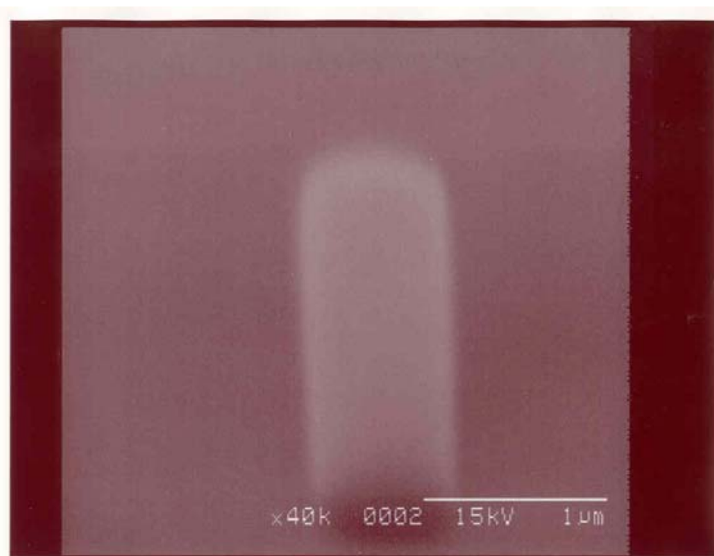
Exposure: 2.8sec. , Mask Opening diameter: 0.5um



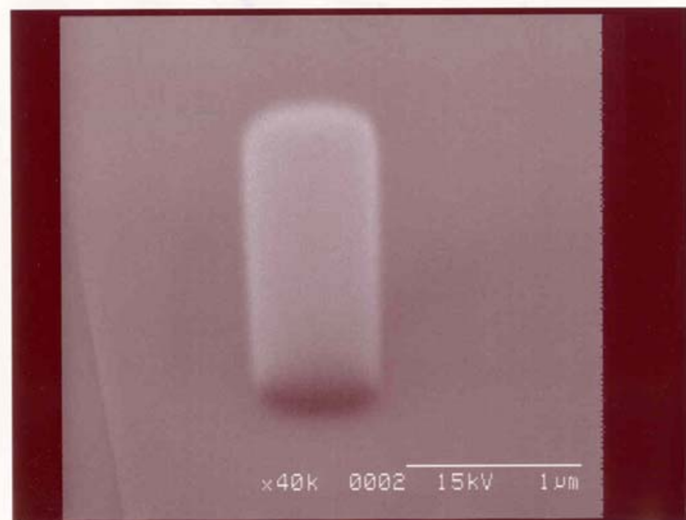
Exposure: 0.8sec. , Mask Opening diameter: 0.7um



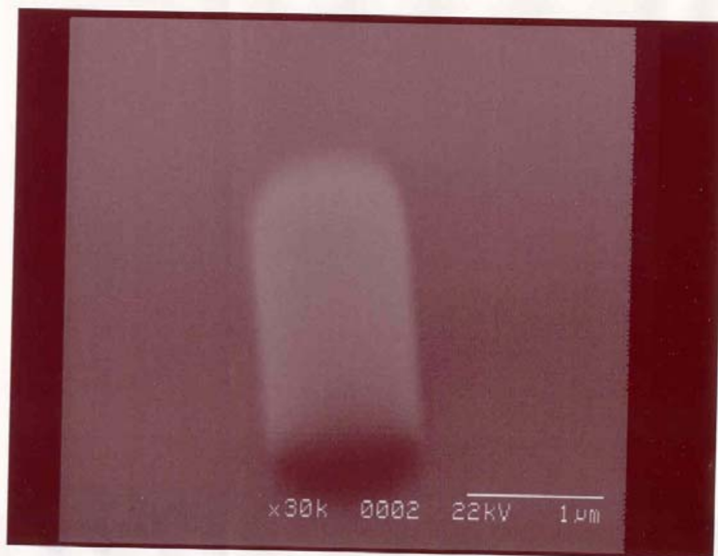
Exposure: 1.8sec. , Mask Opening diameter: 0.7um



Exposure: 1.4sec. , Mask Opening diameter: 0.7um



Exposure: 2.8sec. , Mask Opening diameter: 0.7um



Open Lines/Metal Lift-off on Si using nLOF 2020.

Process Details:

-HMDS spin @ 5K RPM for 60 sec.

- NLOF2020 spin @4k RPM for 60sec.

- 110C “soft”-bake for 60sec.

- exposure time varied, Focus Offset -6

- 109-113C post exposure bake for 60sec.

- MF701 develop for 90sec.

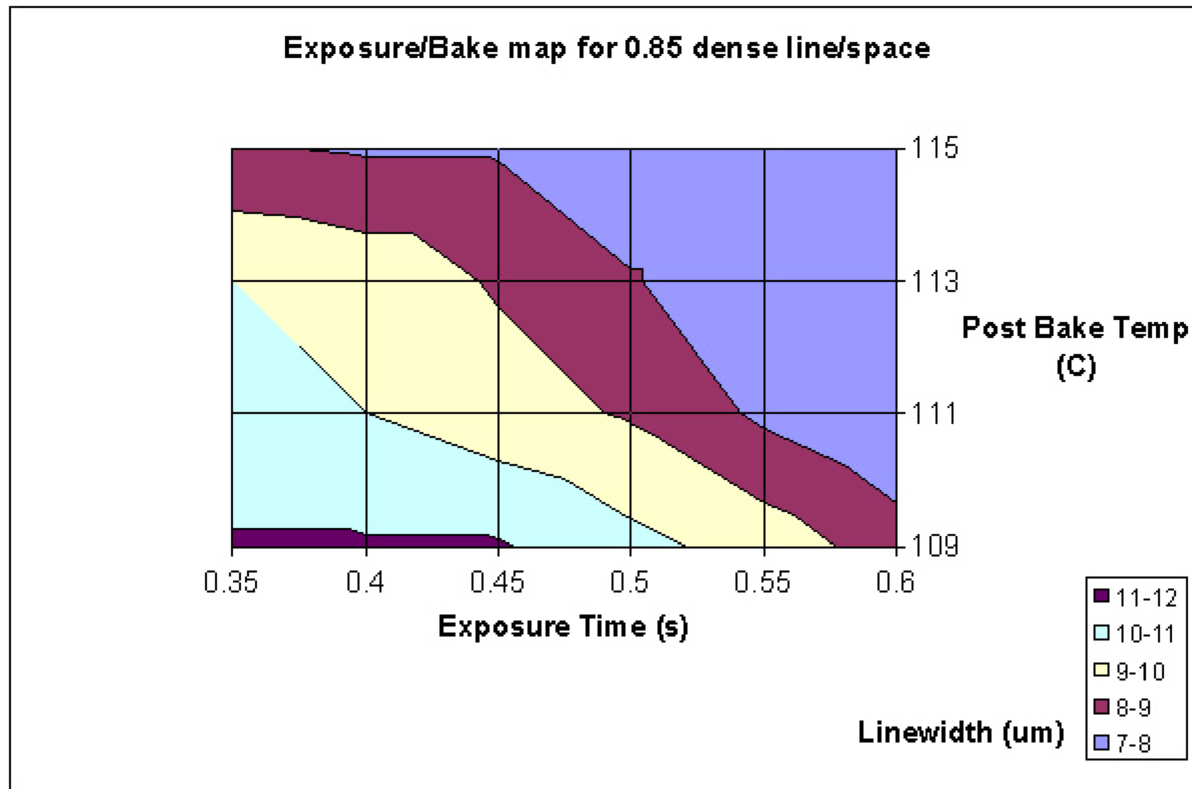
Desired line space is 0.85 microns

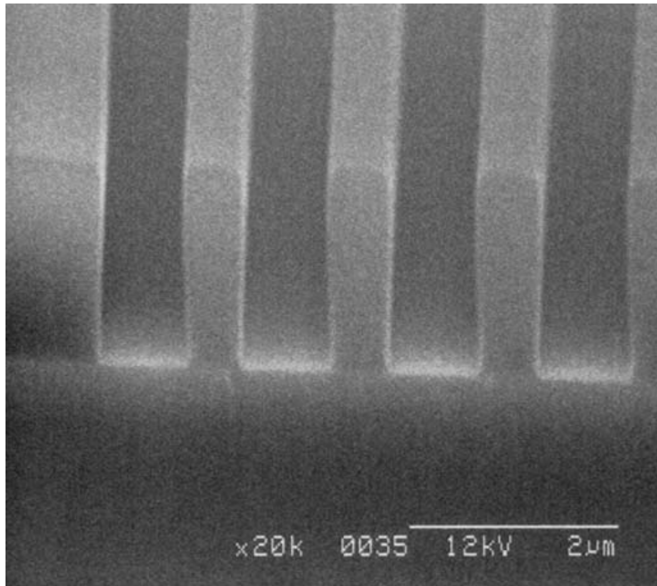
Linewidth

Exp Time	Bake Temp 109	111	113	115
0.35	11.1	10.3	10	8.1
0.4	11.1	10	9.6	7.9
0.45	11.1	9.4	8.9	7.9
0.5	10.3	8.9	8.1	7
0.55	9.6	7.8	7	7
0.6	8.5	7	7	7

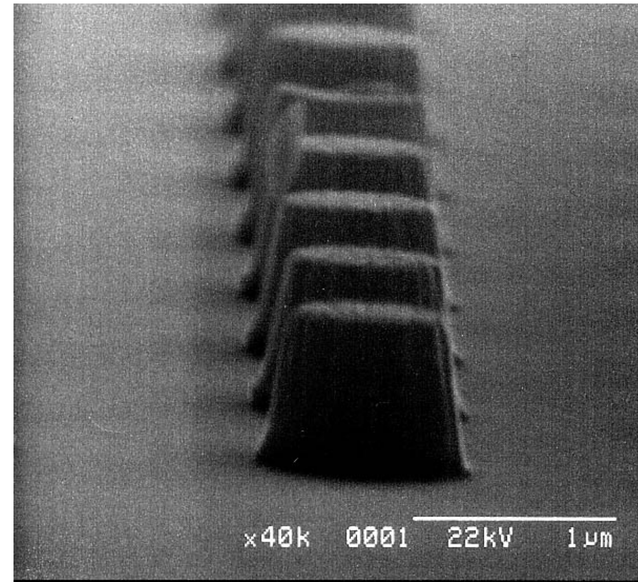
Profile (1=OK, 0=bad)

Exp Time	Bake Temp 109	111	113	115
0.35	1	1	1	0
0.4	1	1	1	0
0.45	1	1	1	0
0.5	1	1	0	0
0.55	1	0	0	0
0.6	1	0	0	0

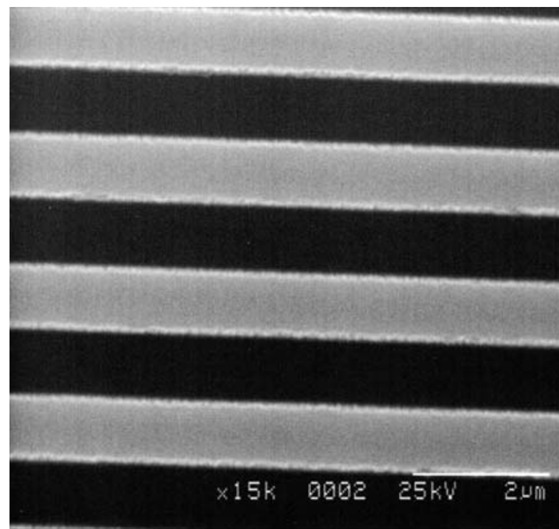




Resist 0.6” exp, 110 C PEB



Metal Pillars 1um high lift-off no wings



Metal lines 1um high lift-off no wings (top-view)