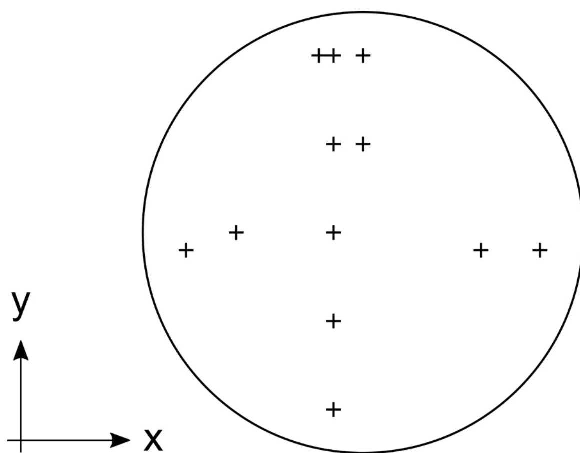
MOORFIELD
NANOTECHNOLOGY

Magnetron Sputtering Uniformity Data

Overview:

Magnetron sputtering was carried out using Moorfield MAGNETRON sources with 3" targets, arranged in a confocal manner in a Moorfield MiniLab deposition system. Substrates were 6" diameter polished wafers that were rotated during deposition. Thickness measurements were by surface profilometry.

SiO_2 Deposition (RF):

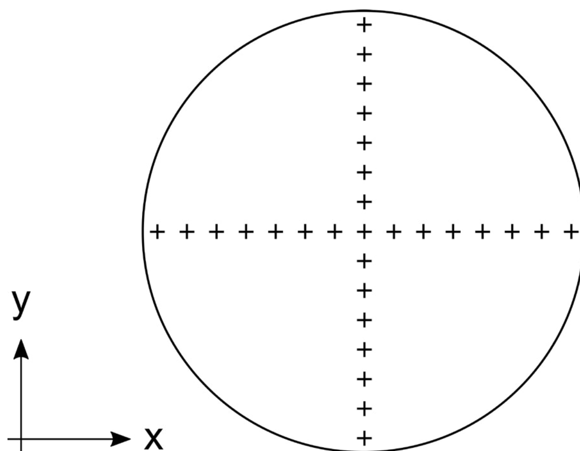


Power: 150 W (RF); Time: 40 minutes

Non-uniformity: ±2.1%

x (mm)	y (mm)	Thickness (Å)
-10	0	597
-10	-30	599
-10	-60	588
-10	30	599
-10	60	596
-43	0	596
-60	-6	588
40	-6	596
60	-6	586
0	30	600
0	60	575
-15	60	585

Ti Deposition (DC):



Power: 540 W (DC); Time: 30 minutes

Non-uniformity: ±4.5%

x sweep (mm)	Thickness (Å)
70	4450
60	4285
50	4320
40	4330
30	4295
20	4290
10	4240
0	4290
-10	4380
-20	4340
-30	4340
-40	4315
-50	4340
-60	4375
-70	4630

y sweep (mm)	Thickness (Å)
70	4580
60	4440
50	4300
40	4400
30	4300
20	4340
10	4390
0	4290
-10	4260
-20	4380
-30	4400
-40	4430
-50	4470
-60	4290
-70	4480

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