

Reactor: **Oxford Flexal ALD**
 Date: **10-Jan-20**

 Growth: Al₂O₃ on 4" Silicon wafer
 Expected growth rate: 0.9-1.3 Angstrom per cycle
 Expected Refractive Index: 1.7 n

 Recipe name: mrichmon - Al₂O₃ Plasma @300C
 Growth Temperature: 300 °C
 Precursor: TMA

 Number of Cycles: 175 Cycles

 Gaertner Angstroms grown: 204.53 Angstroms
 Gaertner Refractive Index: 1.6764 n
 Gaertner Growth Rate: 1.17 Angstrom/ Cycle

 VASE Thickness: Angstroms
 VASE MSE:
 VASE Refractive index: n
 VASE Growth Rate: 0 Angstrom/ Cycle

Gaertner Measurements	Thickness (A)	R.I. (n)
Top Left	204.40	1.6355
Top Right	204.56	1.6381
Center	204.67	1.6347
Bottom left	204.36	1.6383
Bottom Right	204.67	1.8353
Average:	204.532	1.6764

Recipe Information

Dose Time: 40 milliseconds

 Dose Purge Time: 8 seconds
 Dose purge pressure: 15 milliTorr
 Dose purge Ar Flowrate: 100 sccm

 Stabilization Time: 500 milliseconds
 Stabilization O₂ flow rate: 60 sccm
 Stabilization pressure: 15 milliTorr

 plasma:
 Plasma time: 3 seconds
 Plasma power: 300 watts

 Plasma purge: 5 seconds
 Plasma purge Argon Flow: 100 sccm
 Plasma pressure: 15 milliTorr

 Precursor Jacket temp (Oven): N/A °C