

Reactor: **Cambridge Savannah**  
 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: 1 Al2O3\_200\_10nm-??Acyc  
 Growth Temperature: 200 °C  
 Precursor: TMA  
  
 Number of Cycles: 200 Cycles  
  
 Gaertner Angstroms grown: 203.77 Angstroms  
 Gaertner Refractive Index: 1.6782 n  
 Gaertner Growth Rate: 1.02 Angstrom/ Cycle  
  
 VASE Thickness: Angstroms  
 VASE MSE: MSE  
 VASE Refractive index: n  
 VASE Growth Rate: 0.00 Angstrom/ Cycle

<b>Gaertner Measurements</b>	<b>Thickness (A)</b>	<b>R.I. (n)</b>
Top Left	202.49	1.6752
Top Right	203.58	1.6289
Center	204.28	1.8268
Bottom left	204.92	1.6283
Bottom Right	203.59	1.6319
<b>Average:</b>	<b>203.77</b>	<b>1.6782</b>

**Recipe Information**

Dose Time: 20 milliseconds  
 Dose Purge Time: 7 seconds  
 Dose purge Ar Flow: 20 sccm  
  
 Water Dose Time: 20 milliseconds  
 Water Purge Time: 7 Seconds  
 Water Purge Ar Flow: 20 sccm  
  
 Precursor Jacket temp (Oven): N/A °C

Note: Increased purge times