

Reactor: **Oxford Flexal ALD**  
 Date: **25-Jul-19**  
  
 Growth: SiO2 on 4" Silicon wafer  
 Expected growth rate: Angstrom per cycle  
 Expected Refractive Index: n  
  
 Recipe name: mrichmon - SiO2 Plasma @300C  
 Growth Temperature: 300 °C  
 Precursor: BDEAS  
  
 Number of Cycles: 250 Cycles  
  
 Gaertner Angstroms grown: 176.112 Angstroms  
 Gaertner Refractive Index: 1.62034 n  
 Gaertner Growth Rate: 0.704448 Angstrom/ Cycle  
  
 VASE Thickness: Angstroms  
 VASE MSE:  
 VASE Refractive index: n  
 VASE Growth Rate: 0 Angstrom/ Cycle

<b>Gaertner Measurements</b>	<b>Thickness (A)</b>	<b>R.I. (n)</b>
Top Left	174.71	1.6224
Top Right	176.97	1.6159
Center	176.68	1.6176
Bottom left	176.86	1.618
Bottom Right	175.34	1.6278
<b>Average:</b>	<b>176.112</b>	<b>1.62034</b>

**Recipe Information**

Dose Time: 220 milliseconds  
 Dose Purge Time: 4 seconds  
  
 Plasma time: 3 seconds  
 Plasma power: 290 watts  
 Plasma purge: 3 seconds  
  
 Precursor Jacket temp (Oven): 32 °C