

EE143 Lab Week 10 Measurement Checklist:
 Created: 2006/02/20, Shong Yin

1) Lithography

Time (sec)	
Softbake:	
Exposure:	
Developer:	
Hardbake:	

Linewidth (um) of Photoresist		
Nominal	Measured	% Overetch
2		
3		
4		
8		

Notes: 1 tick mark in the right eyepiece of microscope is 1um under 100X

Take a photo of the linewidth marks under 50X

Vernier Misalignment:	
X	
Y	

Take 3 Photos: Overall Vernier Pattern under 20X, and zoomed photo of X & Y vernier patterns under 50X

2) Aluminum:

Aluminum Etch Time:	
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Linewidth (um) of Al after etch		
Nominal	Measured	% Overetch
2		
3		
4		
8		

Notes: 1 tick mark in the right eyepiece of microscope is 1um under 100X

Sintering:	
Time (min)	
Temperature (C)	

Questions:

Calculate % overetch of the linewidth patterns

What was a visual method for determining completion of etching?

Calculate theoretical Al thickness from etch time.

Calculate theoretical Al thickness from the sheet resistance.