

# P09051 Oxygen Gas Sensor

Weekly Status Report MSD II **Week 5**

Submitted: **April 10, 2009**

Team Members		
Samuel Shin <a href="mailto:Hxs3092@rit.edu">Hxs3092@rit.edu</a>	Jeremy Goodman <a href="mailto:Jvg5404@rit.edu">Jvg5404@rit.edu</a>	

## Major Milestone Chart *(Milestones from 11 week schedule):*

Task	Expected Date	Responsible Team Member	Modified Completion Date	Comments
<b>Obtain Materials</b>				
commercial photodiode	Complete	JVG		
LED (High Power)	Complete	JVG		
Ru(dpp) Powder	Complete	SHS		
Epiwafers	Complete	JVG		
Circuit Components	Complete	SHS		
N2 & O2 Gas	3-19-09	JVG		
Test Chamber Materials	3-19-09	JVG	4/15/09	Order from M/C or Grainger
OG570 Optical Filter	Complete	JVG	4/3/09	Purchased
<b>LED Pulsing Circuitry</b>				
Design block diagram for basic operation	Complete	SHS		
Simulate System	3-23-09	SHS	4/10/09	
Build and Test Circuitry	3-23-09	SHS	4/17/09	
<b>Ru(dpp) Polymer</b>				
Contact Chris Collison	Complete	JVG		contacted
Develop Fabrication Plan (in writing)	Complete	JVG		Mixing procedure found in iee article
Establish BOM	Complete	All		
Complete polymer fabrication	Complete	All	4/10/09	Finished mixing film, two slides made
<b>Photodiode</b>				
Observe Photodiode Behavior	Complete	All		
Simulate System	Complete	SHS		
Breadboard Testing	Complete	SHS		
Establish BOM	Complete	SHS		
Test System with Optical Filter	3-30-09	SHS, JVG	4/17/09	
<b>Device</b>				
Put Device Together		SHS	4/17/09	

**Completed for 04/10/09:**

Task	Responsible	Comp Date	Comment
Litho jobs made/tested on gca (PD)	JVG	4/2/09	need to fix some blading issues
final process flow finished (PD)	JVG	3/31/09	2 process flows (short/long)
Photodiode Progress – litho lvl4 contact cuts	JVG	4/8/09	
Fluorescent Film created	JVG	4/7/09	2 slides of film
Purchased optical filter / silver epoxy	JVG	4/7/09	Edmunds optics/mouser

**To Be Completed for 4/17/09:**

Task	Responsible	Comp Date	Comment
Buy materials from M/C for test chamber	JVG		need to talk to nash about SMFL supplies
Process short-run diodes up to test/start long-run	JVG		Litho LVL4
Keep refining the built protoboard, and keep testing	SHS		
Update edge	SHS		

**Action Items**

Item #	Description	Responsible	Due Date	Close Date	Comments
A001	Test out individual components	SHS, JVG	4/15/09		Before sensor is made
A002					
A003					
A004					
A005					

**Issues**

Item #	Description	Responsible	Open Date	Close Date	Comments
I005	SMFL Photodiode completion date, integration time	JVG/SHS	3/13/09		May take too long to be input into final sensor, might have to use commercial only

**Decisions**

Item #	Description	Contributing Individuals	Decision Date	Comments
D001				
D002				
D003				
D004				
D005				