

P09051 Oxygen Gas Sensor

Weekly Status Report MSD II Week 4

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

Task	Expected Date	Responsible Team Member	Modified Completion Date	Comments
Obtain Materials				
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	3-19-09	JVG	4/3/09	Purchasing today
LED Pulsing Circuitry				
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	Need polymer to define signal characteristics
Ru(dpp) Polymer				
Contact Chris Collison	Complete	JVG		contacted
Develop Fabrication Plan (in writing)	Complete	JVG		Mixing procedure found in ieee article
Establish BOM	Complete	All		
Complete polymer fabrication	3-19-09	All	4/10/09	All parts in, need to mix together in chem. lab
Photodiode				
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	
Device				
Put Device Together	Complete	SHS	4/17/09	

Completed for 04/03/09:

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)
Rev 1 Prototypes of emitter and receiver	SHS	4/3/09	Will wait on polymer and planning to see its frequency response to define values for RC filter

To Be Completed for 4/10/09:

Task	Responsible	Comp Date	Comment
Make polymer, coat on microscope slide	JVG		got all the material, just need to cook
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		
Look into starting technical paper	SHS/JVG	TBD	
Draft up Test Plan Phase 2	JVG/SHS	4/10/09	

Action Items

Item #	Description	Responsible	Due Date	Close Date	Comments
A001					
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				

