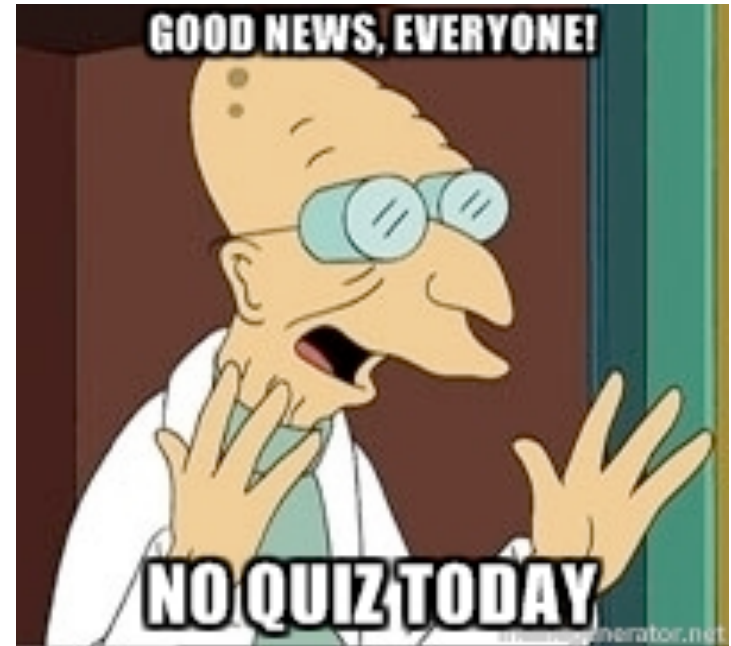


**M3D5:
TEM**

5/5/15

Lab business

- Lab treat...
- Extra office hours
 - Noreen: Su 3-5p (56-302)
 - Leslie: Su 12-3p (56-302)
 - Shannon: M 2-5p (16-317)
 - Angie: M 1-4p 74-561



Mod 3 research proposal

- Define your problem
 - Why is this important/interesting?
 - Discuss the novelty
- Discuss your specific aims
 - Avoid goals that are too long out (5 year plan)
 - Who will do the work?
 - What are alternative strategies?
 - What equipment will you need?
- Please read the rubric

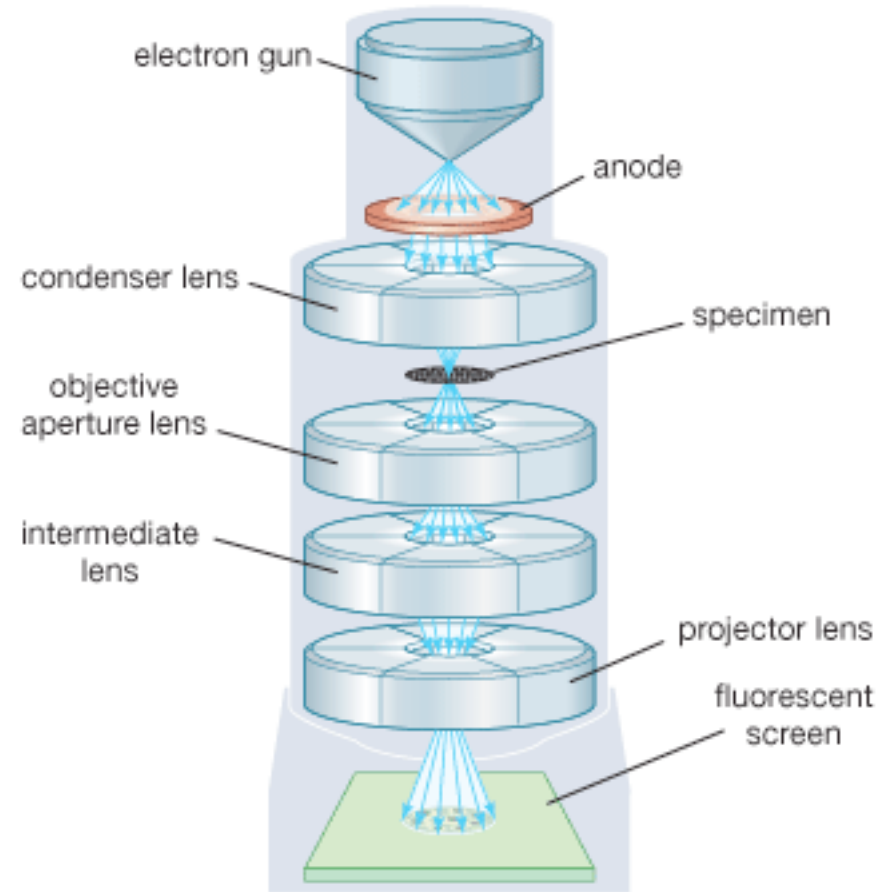
Solar cell efficiencies

Talk:20.109(S15):Solar cell testing (Day 5)

Day	Team	AuNP Size	V_OC (mV)	I_SC (mA)	FF	P_Max (mW)	Efficiency (%)
WF	Pt	12 nm	795.7	1.12	73.6	0.657	2.8
WF	Pink	50 nm	841.2	.37	81	.249	1.2
WF	Prp	5 nm	811.6	.54	76.2	.334	1.8
WF	Grn	5 nm	788.5	0.2	69	0.109	0.5
TR	Blue	5 nm	618	0.052	83.9	0.03	0.19
TR	Green	12 nm	586	0.098	74.9	0.05	0.33
TR	Orange	12 nm	512	0.051	56.5	0.03	0.3
TR	Purple	50 nm	661	0.61	77.7	0.37	1.83
TR	Yellow	50 nm	608	0.55	69.4	0.29	1.82
WF	Blue	12 nm	608	0.57	67.5	0.30	1.88
WF	Orange	12 nm	714	0.35	70.5	0.21	1.32
WF	Red	5 nm	639	0.17	61.8	0.08	0.39
WF	Yellow	50 nm	661	1.1	77.6	0.69	2.88

Transmission electron microscopy

- Electron beam
forms image
- Electromagnets
directs beam
- Vacuum
stops interference



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Today

1. TEM

- Round 1: Blue, Red, Orange
- Round 2: Pink, Purple, Yellow
- Round 3: Green, Platinum

2. Cross-group discussions of research proposal ideas

Krystal	Rachel
Tara	Marissa
Katherine	Anastassia
Vipul	Alex
Hannah	Lauren B.
Joe	Will
Cortni	Sonia
Lauren A.	Kristina
Whoever is available	Jennifer