

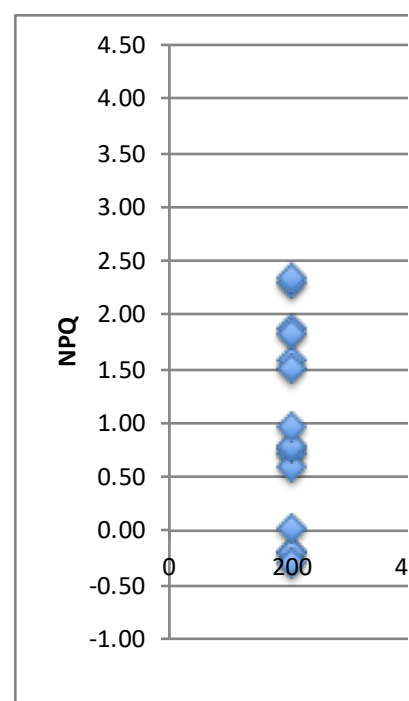
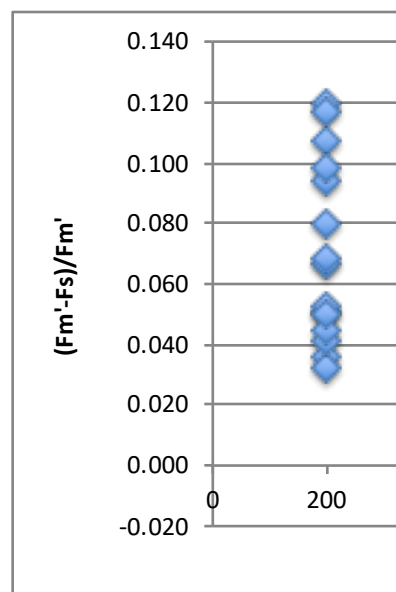
Date	Sample	Pulses in light			
		Pulse Time	Fm'	Fs	Qin
190208	190208 pisp B1 R1	1128	68.8	60.6	200
		1133	61.3	60.8	1600
190208	190208 pisp B1 R2	1142	58.7	52.4	200
		1147	53.2	52.9	1600
190208	190208 pisp B1 R3	1156	45.7	41.4	200
		1201	42.1	42.4	1600
190208	190208 ceag B1 R1	1216	247.7	231.2	200
		1221	230.1	227.8	1600
190208	190208 ceag B1 R2	1230	287.1	253.6	200
		1236	264.8	260.9	1600
190208	190208 ceag B1 R3	1245	287.8	259.6	200
		1251	263.9	260.5	1600
190208	190208 pizs B1 R1	1303	121.9	117.5	200
		1308	108.8	109.2	1600
190208	190208 pizs B1 R2	1317	144.2	139.5	200
		1323	128.8	128.9	1600
190208	190208 pizs B1 R3	1332	145.5	138.1	200
		1337	134	133.1	1600
190208	190208 pinp B1 R1	1347	53.8	51	200
		1352	50.9	50.8	1600
190208	190208 pinp B1 R2	1401	55.6	53.3	200
		1406	51.9	51.3	1600
190208	190208 pinp B1 R3	1415	64.9	62	200
		1420	59.7	59.9	1600
190208	190208 jsba B1 R1	1429	100.9	94	200
		1434	92	91.6	1600

190208 190208 jsba B1 R2	1448	163	154.9	200
	1453	156.7	156.7	1600
190208 190208 jsba B1 R3	1501	121.5	111.8	200
	1506	112.8	112.7	1600

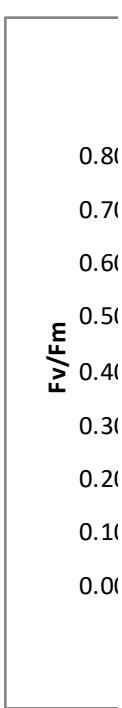
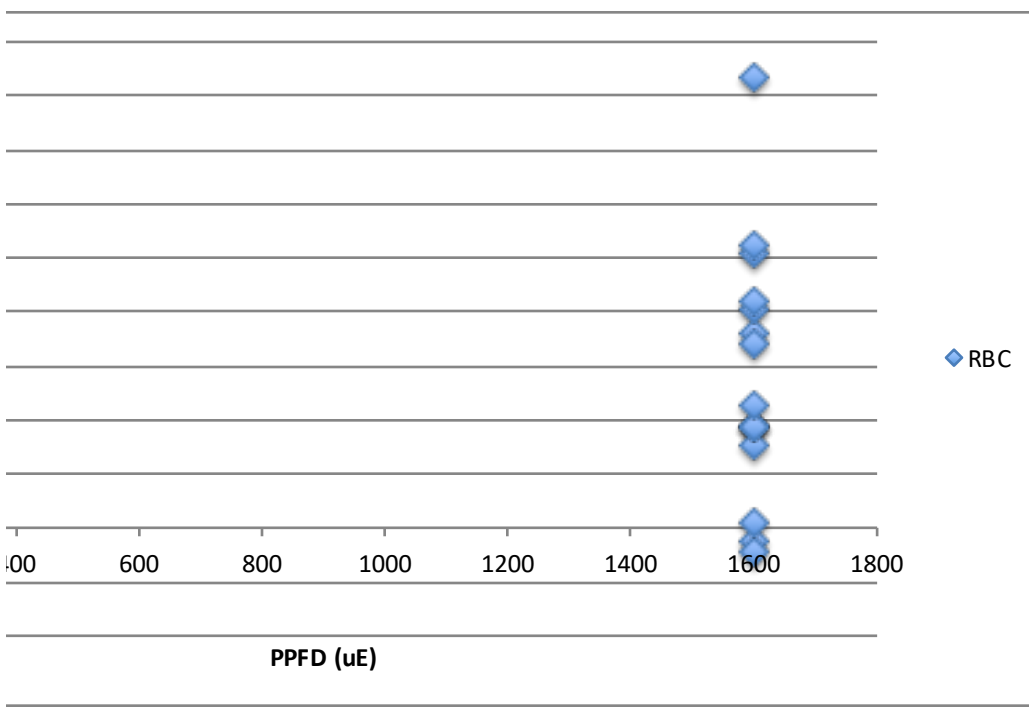
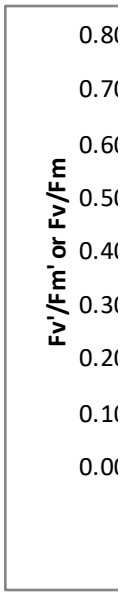
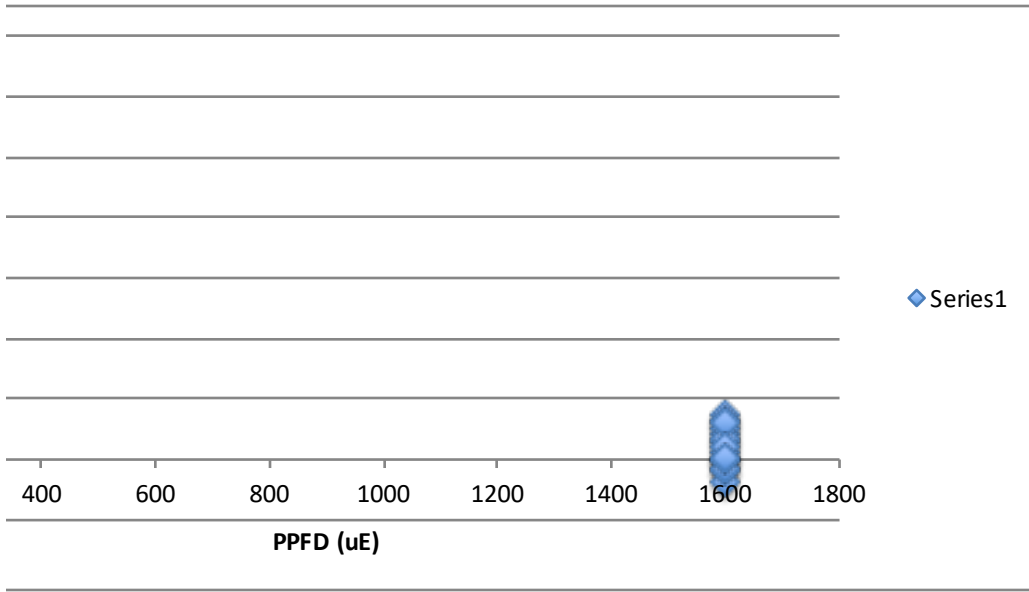
Tleaf	After Dark Pulse			After Dark adapting		calculated (Fm'-Fs)/Fm'
	Fv'	Fs	Fo'	Fm	Fo	
5.0 4.8	25	60.8	36	118.228	63.5778	0.119 0.008
5.5 5.7	31	52.9	22.4	93.784	53.9889	0.107 0.006
5.0 5.1	27	42.4	15	81.0128	47.5111	0.094 -0.007
6.9 7.9	47	227.8	183.2	442.325	230.722	0.067 0.010
9.0 5.2	59	260.9	205.4	739.41	311.789	0.117 0.015
4.9 4.9	57	260.5	206.6	561.488	261.867	0.098 0.013
4.7 5.0	43	109.2	66	97.16	43.1778	0.036 -0.004
4.9 5.0	45	128.9	84.2	113.866	74.4778	0.033 -0.001
5.28 5.7	56	133.1	78.2	102.546	61.7444	0.051 0.007
4.9 5.0	27	50.8	24.2	154.34	62.6889	0.052 0.002
4.6 5.1	27	51.3	24.6	183.459	84.2222	0.041 0.012
5.0 6.0	30	59.9	29.2	161.858	94.9222	0.045 -0.003
5.1 5.6	32	91.6	60.4	283.886	176.322	0.068 0.004

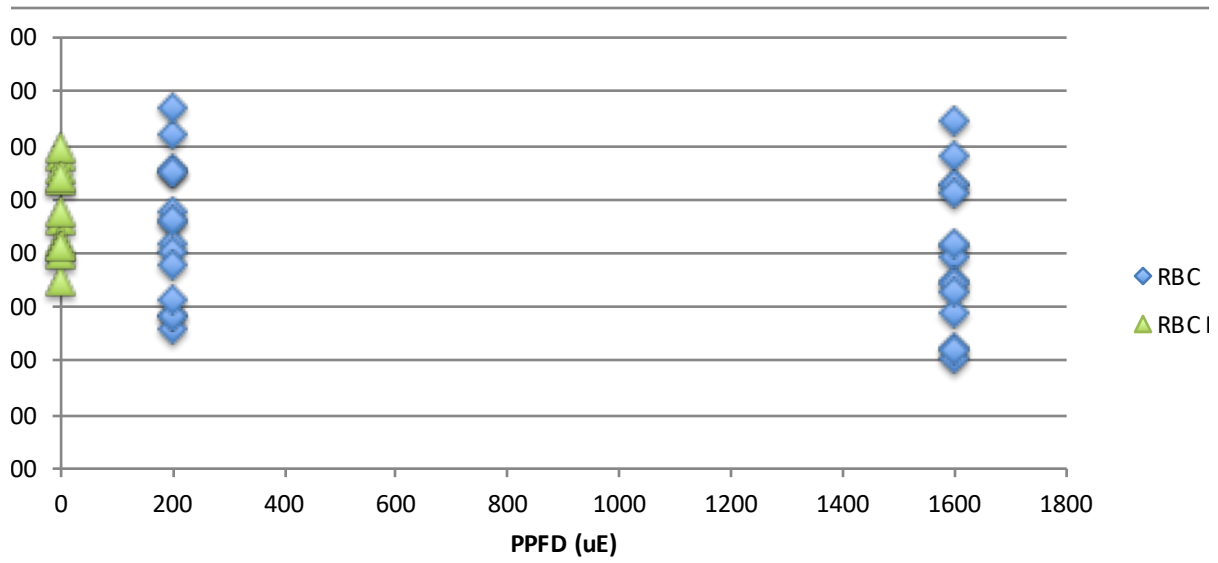
5.0	45	156.7	111.6	164.726	117.167	0.050
5.0						0.000
4.9	37	112.7	75.6	406.501	230.767	0.080
5.0						0.001

calculated Fv'/Fm'	calculated Fv/Fm	calculated NPQ	for plotting Fv/Fm
0.477	0.462	0.72	0
0.413		0.93	
0.618	0.424	0.60	0
0.579		0.76	
0.672	0.414	0.77	0
0.644		0.92	
0.260	0.478	0.79	0
0.204		0.92	
0.285	0.578	1.58	0
0.224		1.79	
0.282	0.534	0.95	0
0.217		1.13	
0.459	0.556	-0.20	0
0.393		4.16	
0.416	0.346	-0.21	0
0.346		-0.12	
0.463	0.398	-0.30	0
0.416		-0.23	
0.550	0.594	1.87	0
0.525		2.03	
0.558	0.541	2.30	0
0.526		2.53	
0.550	0.414	1.49	0
0.511		1.71	
0.401	0.379	1.81	0
0.343		2.09	

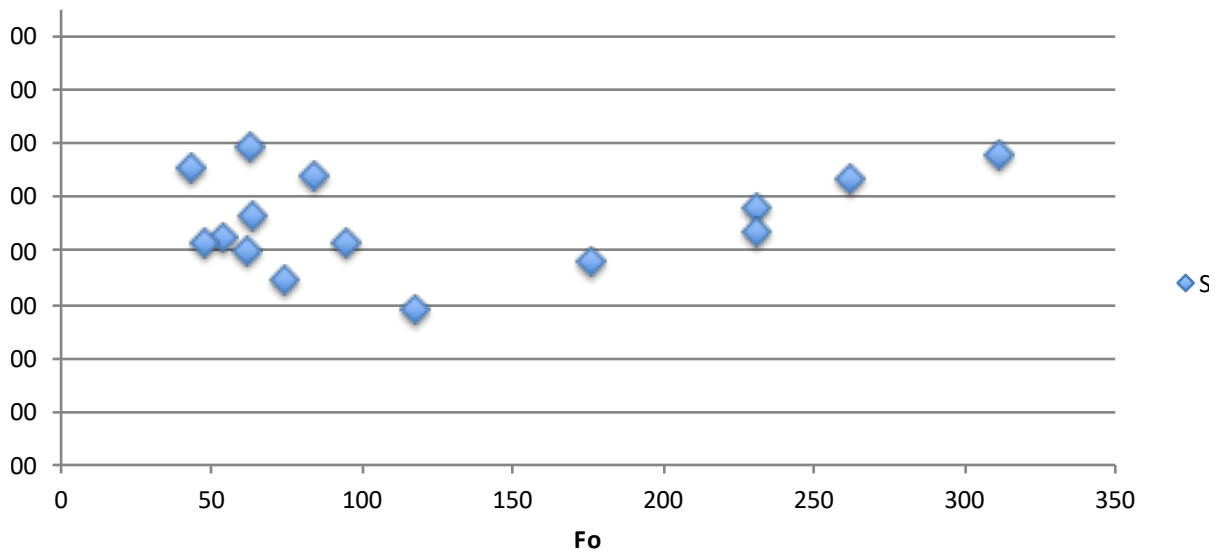


0.315	0.289	0.01	0
0.288		0.05	
0.378	0.432	2.35	0
0.330		2.60	





dark adapted results - signal strength check



Fv/Fm

series1

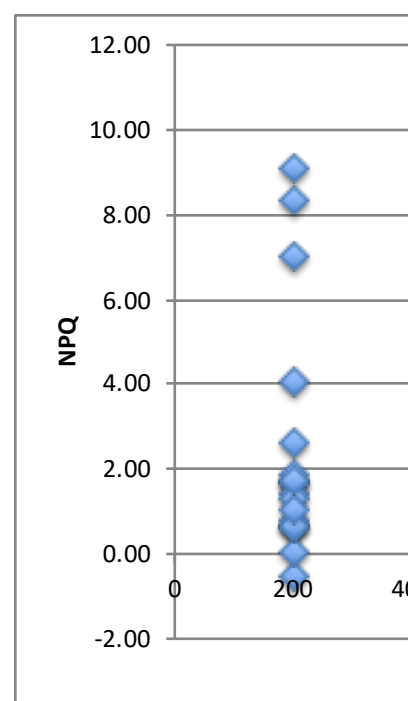
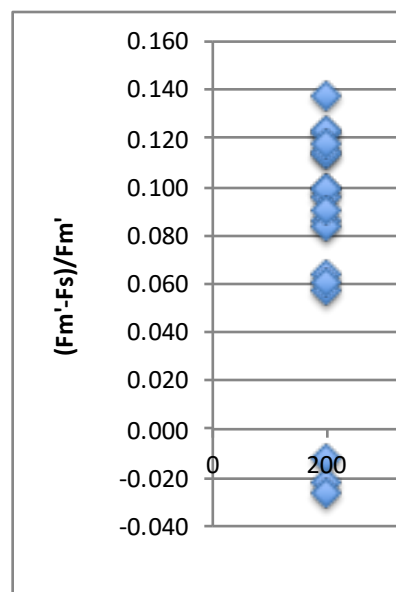
Date	Sample	Pulses in light			
		Pulse Time	Fm'	Fs	Qin
190209	190209 plif B1 R1	1005	71.9	62	200
		1010	58.1	57.6	1600
190209	190209 plif B1 R2	1020	132.8	117.7	200
		1025	108.8	107.8	1600
190209	190209 plif B1 R3	1035	78.4	70.6	200
		1040	72.5	71.9	1600
190209	190209 pasc B1 R1	1100	355.3	335	200
		1105	307.2	302.6	1600
190209	190209 pasc B1 R2	1123	410.8	384.5	200
		1128	353.2	349.6	1600
190209	190209 pasc B1 R3	1139	342.8	322	200
		1146	302	298.9	1600
190209	190209 sgvm B1 R1	1209	319.1	291.8	200
		1214	248.8	246.5	1600
190209	190209 sgvm B1 R2	1223	386.9	354.7	200
		1228	303.2	300.9	1600
190209	190209 sgvm B1 R3	1239	331.3	291	200
		1244	243.8	239.1	1600
190209	190209 pije B1 R1	1324	22.5	23	200
		1329	20.3	20.5	1600
190209	190209 pije B1 R2	1338	22.6	23.2	200
		1343	20.9	20.8	1600
190209	190209 pije B1 R3	1351	16.5	16.7	200
		1356	15.5	15.6	1600
190209	190209 pied B1 R1	1411	239	216.2	200
		1416	193.7	191.5	1600

190209 190209 pied B1 R2	1440	188.4	165.1	200
	1446	155.2	153.4	1600
190209 190209 pied B1 R3	1458	738.3	665.1	200
	1504	593.5	583.9	1600
190209 190209 pipm B1 R1	1525	403.3	366.7	200
	1531	335.1	329.2	1600
190209 190209 pipm B1 R2	1541	426.9	378.2	200
	1547	344.2	337.3	1600
190209 190209 pipm B1 R3	1603	458.3	404.4	200
	1609	380.6	372.2	1600

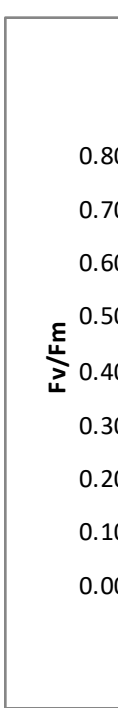
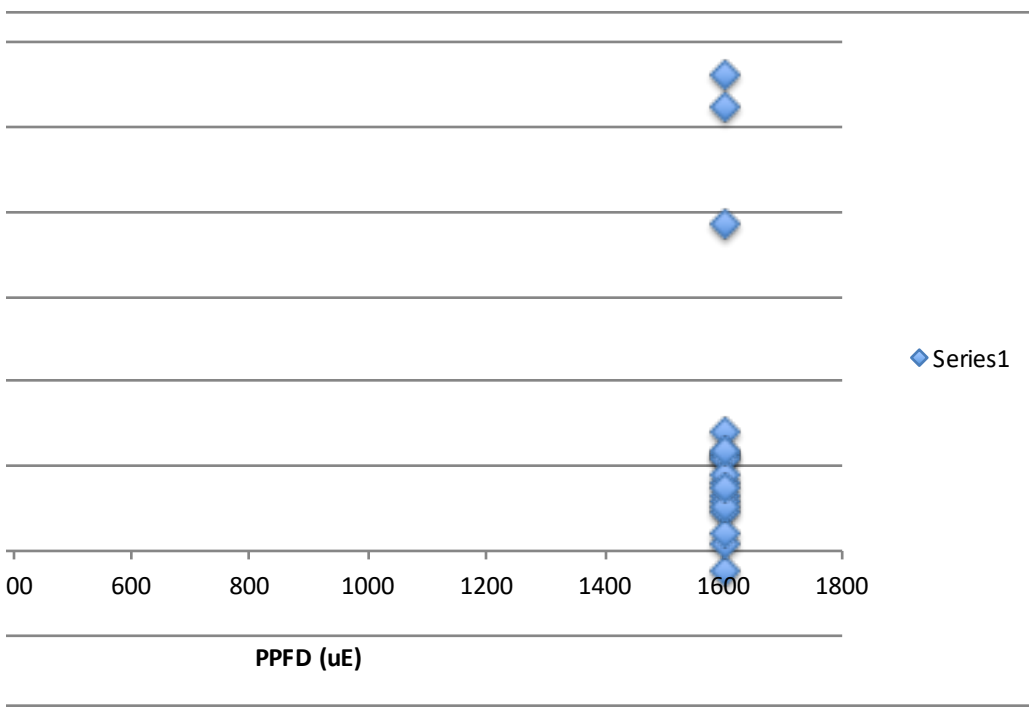
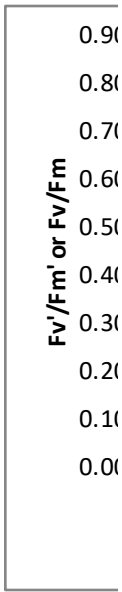
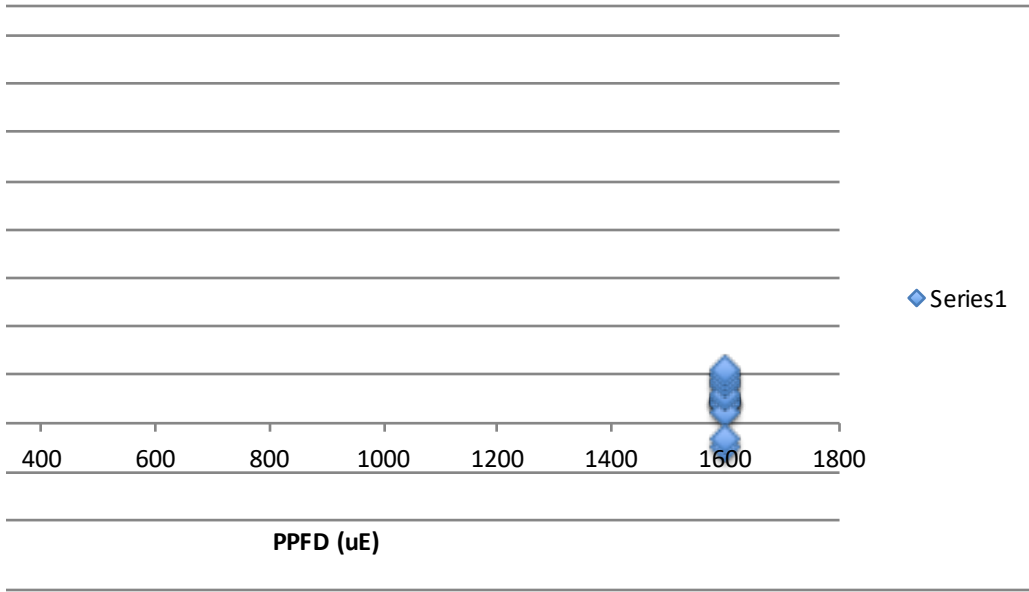
Tleaf	After Dark Pulse			After Dark adapting		calculated (Fm'-Fs)/Fm'
	Fv'	Fs	Fo'	Fm	Fo	
5.0	30	57.6	28.2	192.723	107.3	0.138
5.0						0.009
5.0	57	107.8	52.2	350.797	177.756	0.114
5.5						0.009
5.1	38	71.9	34.2	630.012	323.311	0.099
6.7						0.008
6.4	82	302.6	225.2	165.526	120.711	0.057
7.9						0.015
5.0	105	349.6	247.8	682.22	347.578	0.064
5.4						0.010
5.2	80	298.9	222.4	345.91	210.756	0.061
6.6						0.010
5.3	109	246.5	140.2	1604.74	427.722	0.086
7.2						0.009
5.1	145	300.9	157.8	692.123	269.289	0.083
6.1						0.008
6.2	112	239.1	131.8	530.078	228.489	0.122
8.1						0.019
5.8	17	20.5	3.4	63.8184	52.9667	-0.022
7.0						-0.010
5.3	15	20.8	5.6	54.5768	52.3333	-0.027
6.5						0.005
5.9	13	15.6	2.4	59.0288	54.6333	-0.012
7.2						-0.006
6.0	70	191.5	123.6	2225	678.922	0.095
8.0						0.011

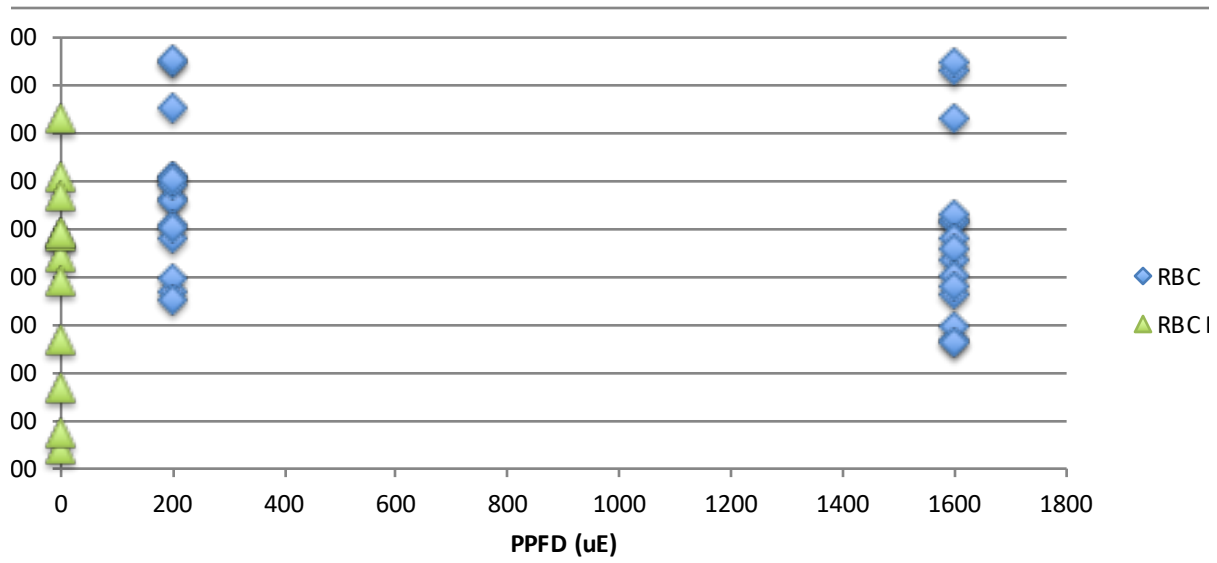
5.8	62	153.4	92.8	1898.73	556.133	0.124
7.7						0.012
5.6	226	583.9	368	1666.21	541.311	0.099
7.1						0.016
6.0	94	329.2	241.2	677.559	301.2	0.091
7.3						0.018
5.0	97	337.3	247.2	1162.13	462.844	0.114
5.5						0.020
6.4	98	372.2	282.6	946.304	389.4	0.118
7.6						0.022

calculated Fv'/Fm'	calculated Fv/Fm	calculated NPQ	for plotting Fv/Fm
0.608	0.443	1.68	0
0.515		2.32	
0.607	0.493	1.64	0
0.520		2.22	
0.564	0.487	7.04	0
0.528		7.69	
0.366	0.271	-0.53	0
0.267		-0.46	
0.397	0.491	0.66	0
0.298		0.93	
0.351	0.391	0.01	0
0.264		0.15	
0.561	0.733	4.03	0
0.436		0.39	
0.592	0.611	0.79	0
0.480		1.28	
0.602	0.569	0.60	0
0.459		1.17	
0.849	0.170	1.84	0
0.833		2.14	
0.752	0.041	1.41	0
0.732		1.61	
0.855	0.074	2.58	0
0.845		2.81	
0.483	0.695	8.31	0
0.362		10.49	

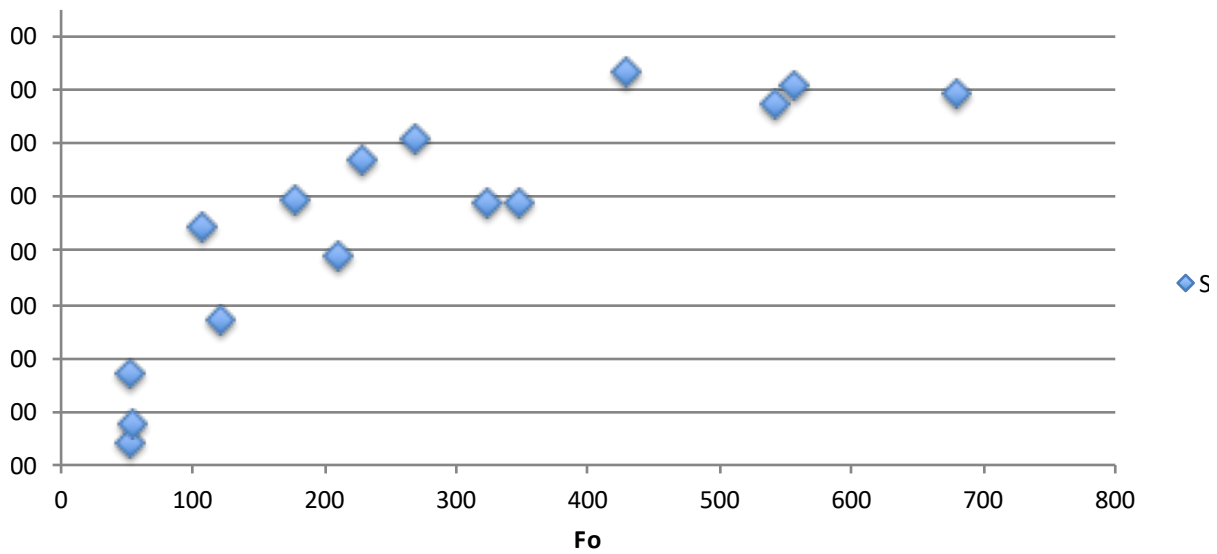


0.507	0.707	9.08	0
0.402		11.23	
0.502	0.675	1.26	0
0.380		1.81	
0.402	0.555	0.68	0
0.280		1.02	
0.421	0.602	1.72	0
0.282		2.38	
0.383	0.589	1.06	0
0.257		1.49	





dark adapted results - signal strength check



Fv/Fm

series1

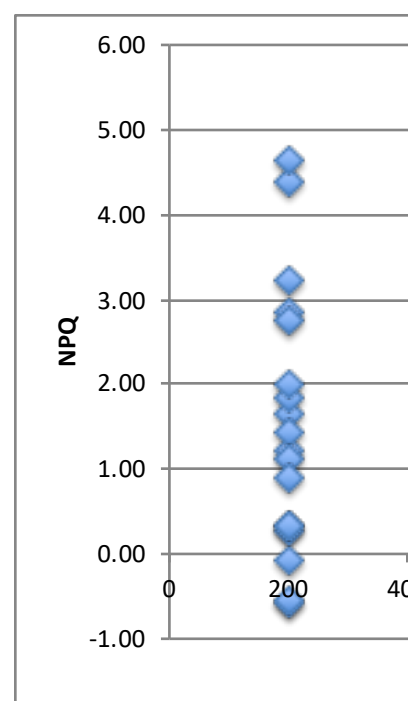
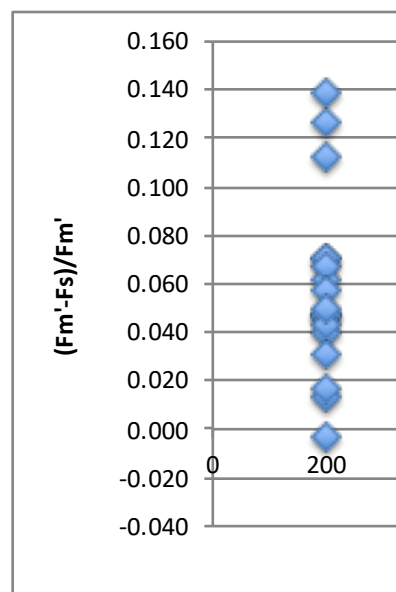
Date	Sample	Pulses in light			
		Pulse Time	Fm'	Fs	Qin
190210	190210 piph B1 R1	1204	147.6	140.8	200
		1210	135.7	136	1600
190210	190210 piph B1 R2	1233	289	275.2	200
		1238	242.4	242.1	1600
190210	190210 piph B1 R3	1248	322.8	300.1	200
		1253	284	281.3	1600
190210	190210 jcsg B1 R1	1317	809	718	200
		1323	667.9	658.1	1600
190210	190210 jcsg B1 R2	1333	659.9	576.4	200
		1338	541.6	532.5	1600
190210	190210 jcsg B1 R3	1349	651.3	561.3	200
		1355	529.8	522.7	1600
190210	190210 ponc B1 R1	1415	306.3	284.7	200
		1421	253	250.9	1600
190210	190210 ponc B1 R2	1433	328.8	308.6	200
		1438	288.7	287.1	1600
190210	190210 ponc B1 R3	1447	343.1	320.1	200
		1452	295.9	294.4	1600
190210	190210 pist B1 R1	1511	67.9	68.1	200
		1516	63.6	65	1600
190210	190210 pist B1 R2	1527	66.2	65.3	200
		1533	61.4	62.4	1600
190210	190210 pist B1 R3	1542	65	63.9	200
		1547	60.3	62	1600
190210	190210 choc B1 R1	1601	1273.1	1222.8	200
		1606	1189.7	1183.1	1600

190210 190210 choc B1 R2	1614	1618.6	1525.8	200
	1619	1413	1405.4	1600
190210 190210 choc B1 R3	1627	1032.5	984	200
	1633	955.2	950.7	1600
190210 190210 cunj B1 R1	1653	138.6	134.4	200
	1658	133.2	133.3	1600
190210 190210 cunj B1 R2	1706	291.4	279	200
	1711	263.1	260.7	1600
190210 190210 cunj B1 R3	1719	324.8	308.9	200
	1724	290	286.9	1600

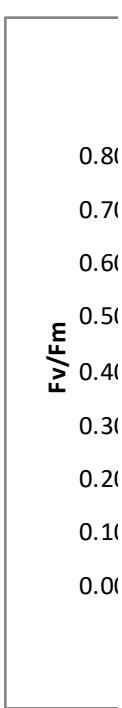
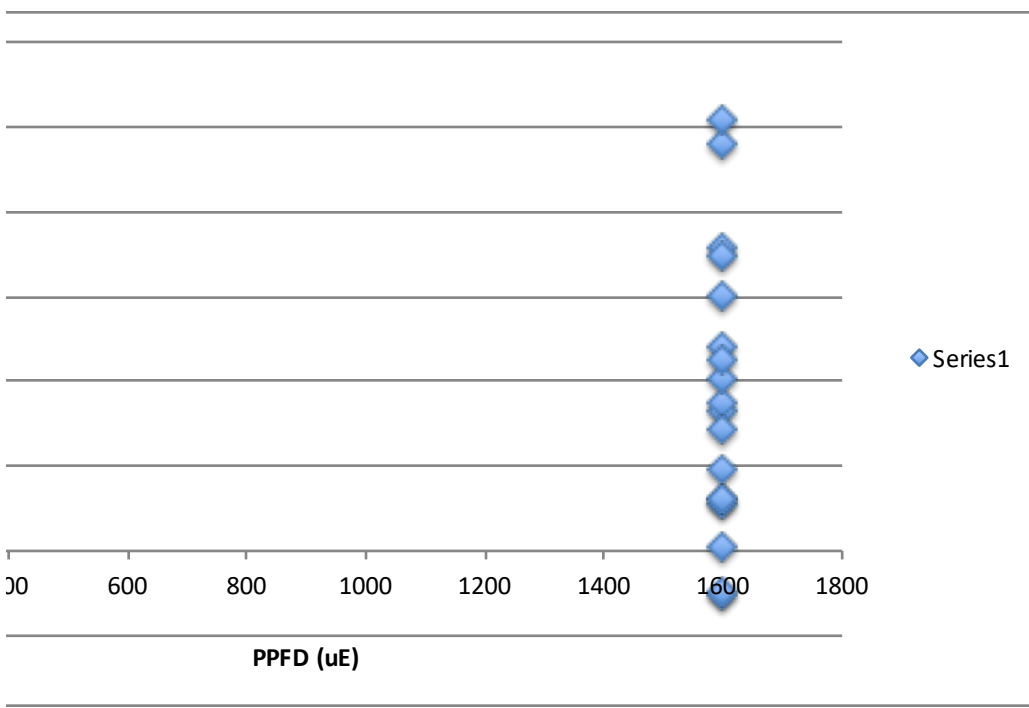
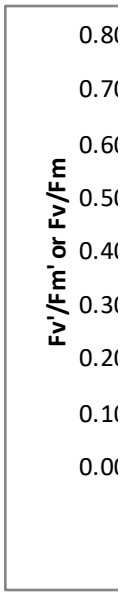
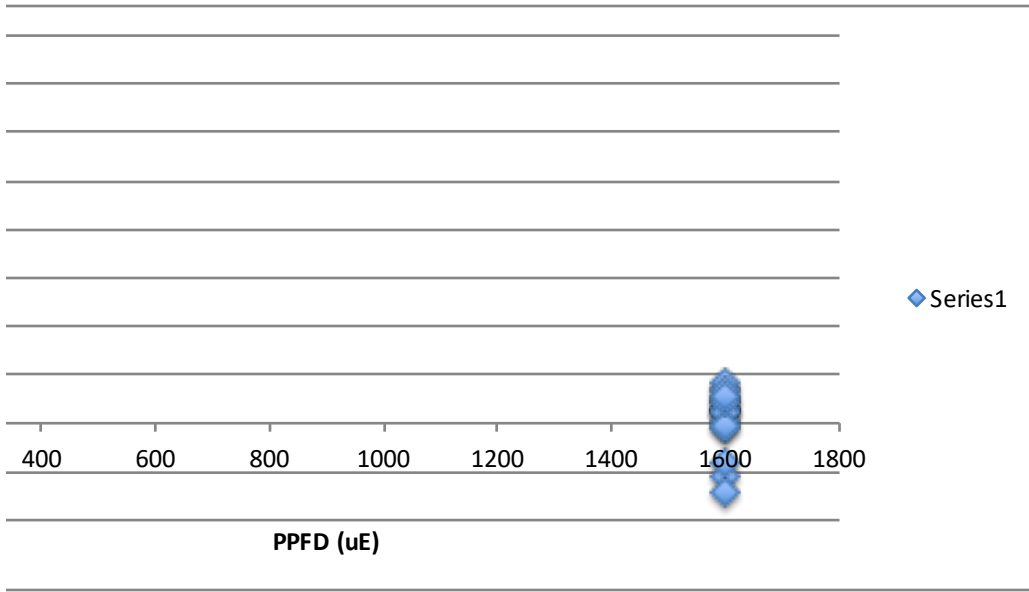
Tleaf	After Dark Pulse			After Dark adapting		calculated (Fm'-Fs)/Fm'
	Fv'	Fs	Fo'	Fm	Fo	
6.0	51	136	84.2	621.165	392.722	0.046
7.2						-0.002
5.4	65	242.1	177.8	638.995	398.367	0.048
6.5						0.001
5.3	79	281.3	204.8	296.619	198.222	0.070
5.9						0.010
5.9	262	658.1	406	1027.14	256.267	0.112
7.5						0.015
6.5	233	532.5	308.2	875.176	243.289	0.127
8.8						0.017
7.8	242	522.7	288	861.88	212.5	0.138
8.9						0.013
5.4	98	250.9	154.6	814.82	376.233	0.071
7.1						0.008
5.0	97	287.1	192	795.427	378.778	0.061
5.3						0.006
5.2	105	294.4	190.8	1319.82	576.111	0.067
6.8						0.005
6.3	24	65	39.8	192.012	150.467	-0.003
7.9						-0.022
5.6	23	62.4	38.4	356.604	251.4	0.014
6.6						-0.016
5.4	33	62	27.6	367.28	264.889	0.017
7.4						-0.028
6.2	595	1183.1	594.8	4759.6	895.667	0.040
7.7						0.006

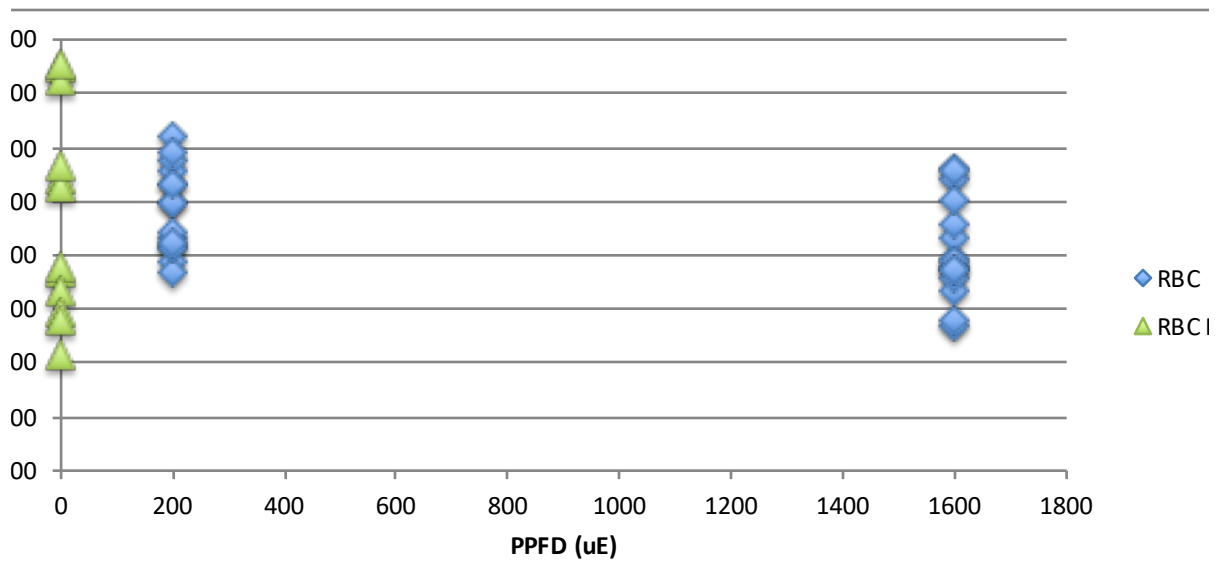
7.1	794	1405.4	619	3446.71	922.378	0.057
8.2						0.005
6.8	530	950.7	425.6	3105.16	949.622	0.047
7.9						0.005
5.7	41	133.3	92	261.661	180.956	0.030
7.5						-0.001
6.3	87	260.7	176.4	125.921	96.8	0.043
7.5						0.009
7.0	94	286.9	196	147.174	112.033	0.049
8.7						0.011

calculated Fv'/Fm'	calculated Fv/Fm	calculated NPQ	for plotting Fv/Fm
0.430 0.380	0.368	3.21 3.58	0
0.385 0.267	0.377	1.21 1.64	0
0.366 0.279	0.332	-0.08 0.04	0
0.498 0.392	0.751	0.27 0.54	0
0.533 0.431	0.722	0.33 0.62	0
0.558 0.456	0.753	0.32 0.63	0
0.495 0.389	0.538	1.66 2.41	0
0.416 0.335	0.524	1.42 1.76	0
0.444 0.355	0.563	2.85 3.46	0
0.414 0.374	0.216	1.83 2.02	0
0.420 0.375	0.295	4.39 4.81	0
0.575 0.542	0.279	4.65 5.09	0
0.533 0.500	0.812	2.74 3.00	0

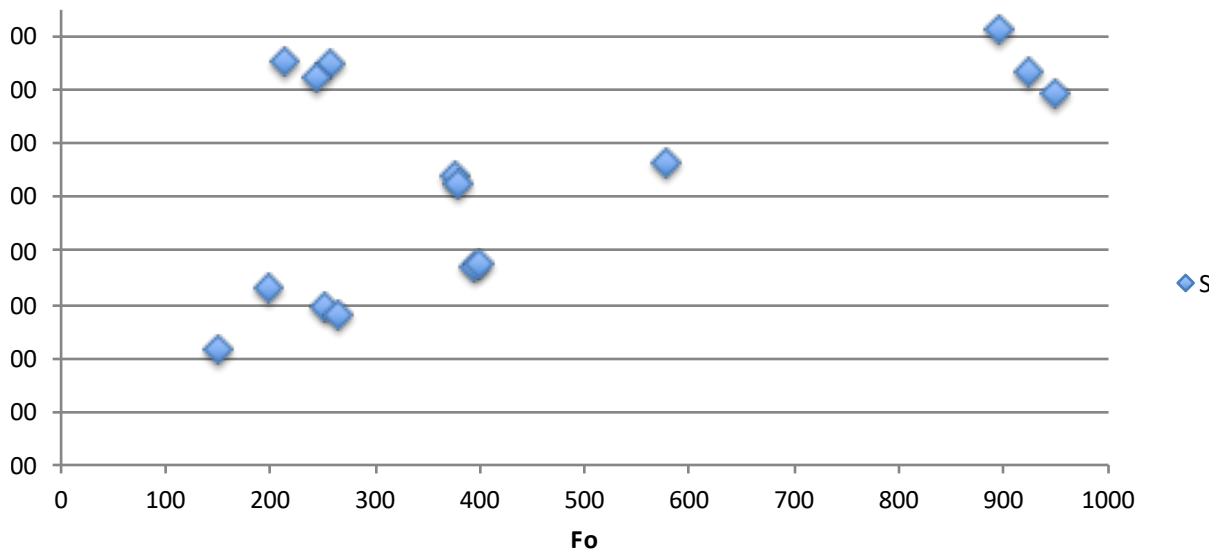


0.618	0.732	1.13	0
0.562		1.44	
0.588	0.694	2.01	0
0.554		2.25	
0.336	0.308	0.89	0
0.309		0.96	
0.395	0.231	-0.57	0
0.330		-0.52	
0.397	0.239	-0.55	0
0.324		-0.49	





dark adapted results - signal strength check



Fv/Fm

series1

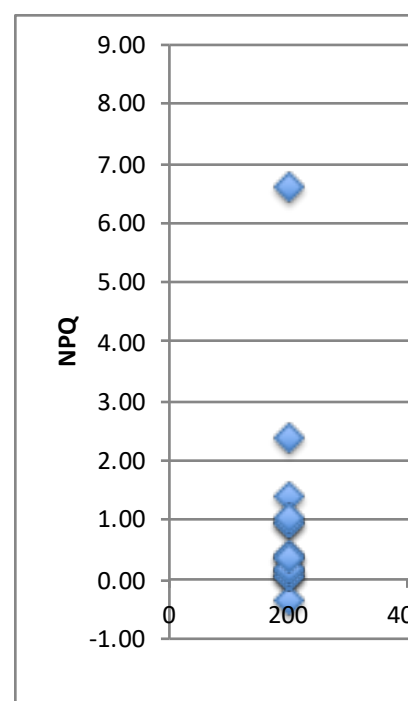
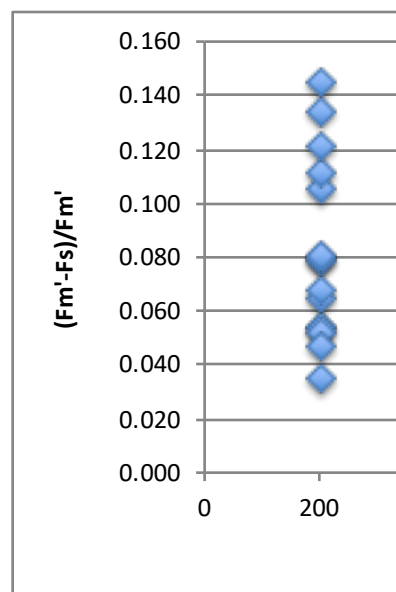
Date	Sample	Pulses in light			
		Pulse Time	Fm'	Fs	Qin
190211	190211 phvl B1 R1	1017	46.2	43.7	200
		1023	38.6	38.3	1600
190211	190211 phvl B1 R2	1037	237.3	222	200
		1043	206.2	205	1600
190211	190211 phvl B1 R3	1052	286.5	271.2	200
		1058	260	260	1600
190211	190211 akhs B1 R1	1112	328.9	306.8	200
		1117	303.8	301.5	1600
190211	190211 akhs B1 R2	1127	205	188.9	200
		1132	200.2	197.8	1600
190211	190211 akhs B1 R3	1141	222.6	204.9	200
		1146	219.3	216.3	1600
190211	190211 psgf B1 R1	1214	216.9	187.8	200
		1219	187.9	184.9	1600
190211	190211 psgf B1 R2	1231	369.2	315.7	200
		1236	305.7	300	1600
190211	190211 psgf B1 R3	1246	400.6	358.3	200
		1251	346.7	337.4	1600
190211	190211 pibu B1 R1	1304	306.5	295.7	200
		1309	293.1	291.7	1600
190211	190211 pibu B1 R2	1323	387.2	367	200
		1328	361.2	359.8	1600
190211	190211 pibu B1 R3	1338	424.9	405.1	200
		1343	389.3	387.2	1600
190211	190211 jusb B1 R1	1401	770.4	708.5	200
		1406	587.4	583.3	1600

190211 190211 jusb B1 R2	1415	469.7	417.4	200
	1421	369.7	365.3	1600
190211 190211 jusb B1 R3	1443	918.4	807	200
	1448	739.6	731.2	1600

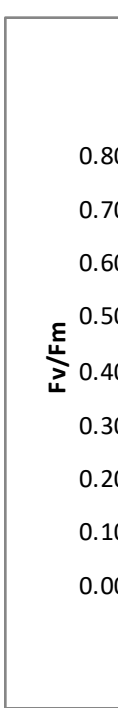
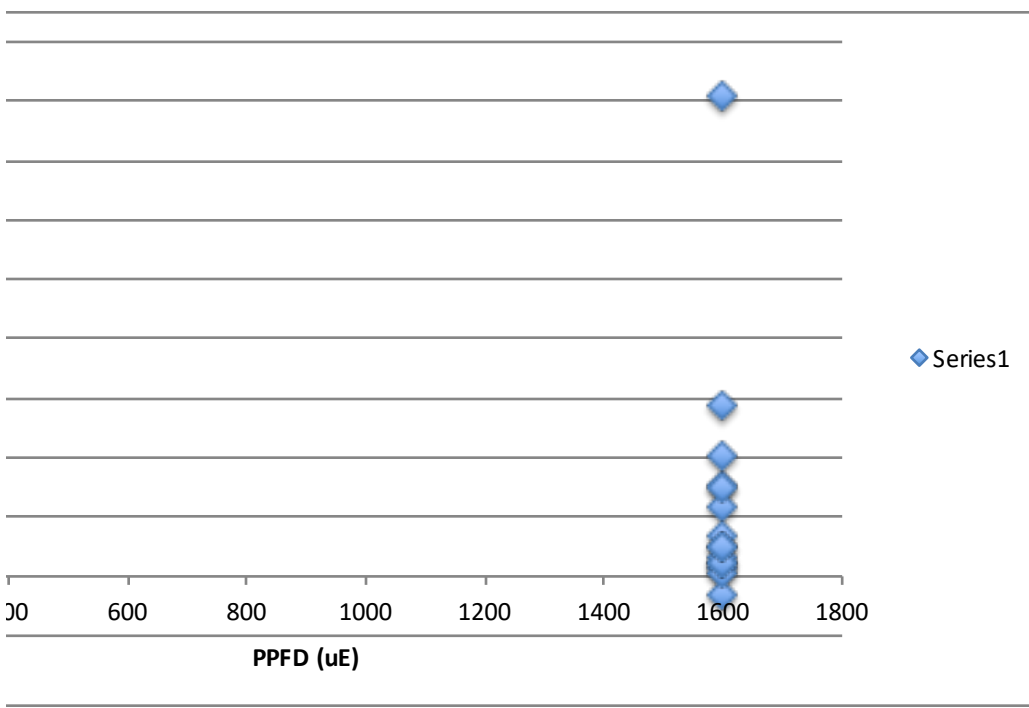
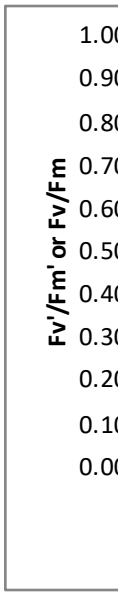
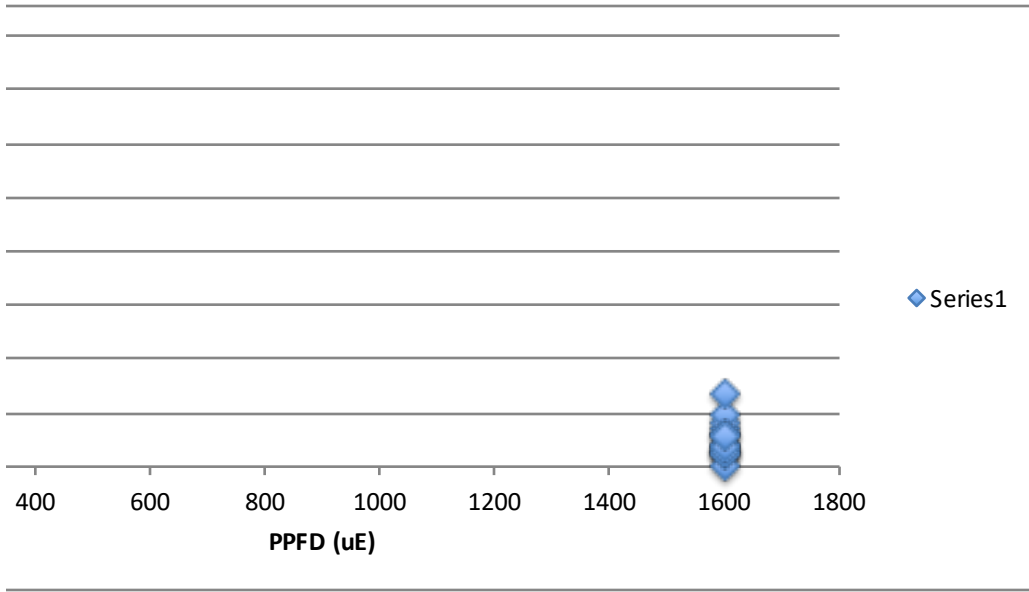
Tleaf	After Dark Pulse			After Dark adapting		calculated (Fm'-Fs)/Fm'
	Fv'	Fs	Fo'	Fm	Fo	
5.0	34	38.3	2.4	351.02	207.4	0.054
5.0						0.008
5.1	65	205.4	141.4	798.162	407.689	0.064
5.1						0.006
5.2	79	260	181.4	561.982	323.522	0.053
5.1						0.000
5.1	123	301.5	181	213.994	141.389	0.067
5.0						0.008
5.1	74	197.8	126.2	230.158	150.833	0.079
5.2						0.012
5.5	83	216.5	136.4	228.932	151.156	0.080
7.2						0.014
5.1	54	184.9	133.8	231.138	159.467	0.134
5.2						0.016
5.2	80	300	225.8	505.315	292.778	0.145
5.3						0.019
5.0	101	337.4	245.8	458.394	301.544	0.106
5.7						0.027
5.1	65	291.7	228.2	358.039	283.433	0.035
5.3						0.005
5.0	85	359.8	276.2	543.682	369.933	0.052
5.6						0.004
5.3	96	387.2	293.4	581.614	403.1	0.047
6.5						0.005
5.5	334	583.3	253.2	1490.97	346.056	0.080
7.2						0.007

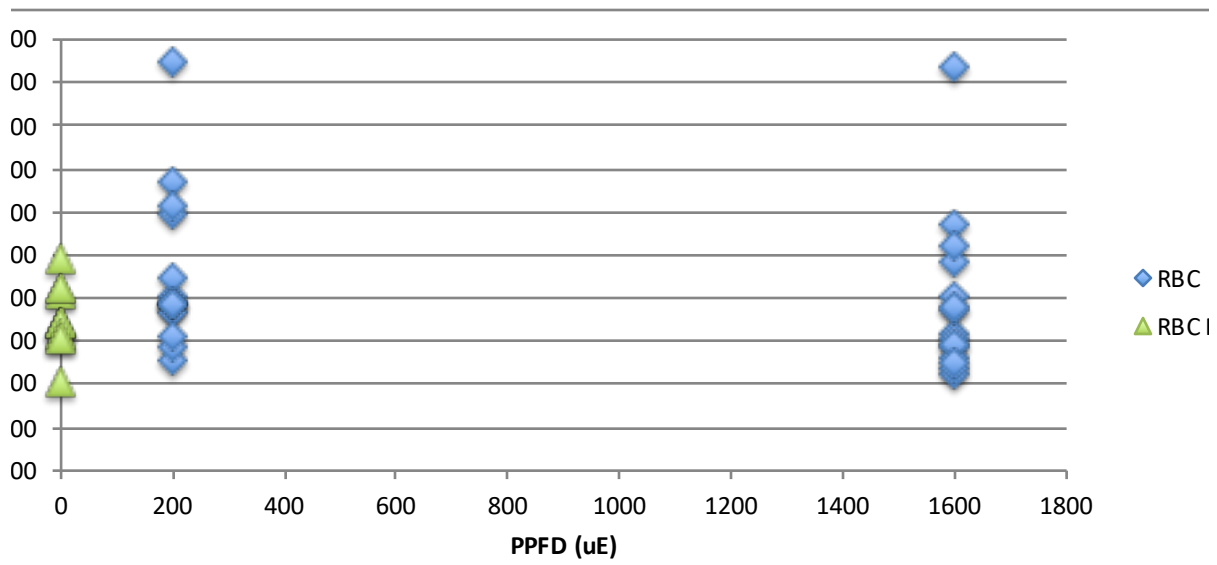
7.5	179	365.3	190.2	1125.26	239.511	0.111
9.2						0.012
6.4	385	731.2	354.6	1852.36	397.878	0.121
7.1						0.011

calculated Fv'/Fm'	calculated Fv/Fm	calculated NPQ	for plotting Fv/Fm
0.948	0.409	6.60	0
0.938		8.09	
0.404	0.489	2.36	0
0.314		2.87	
0.367	0.424	0.96	0
0.302		1.16	
0.450	0.339	-0.35	0
0.404		-0.30	
0.384	0.345	0.12	0
0.370		0.15	
0.387	0.340	0.03	0
0.378		0.04	
0.383	0.310	0.07	0
0.288		0.22	
0.388	0.421	0.37	0
0.261		0.65	
0.386	0.342	0.14	0
0.291		0.32	
0.255	0.208	0.17	0
0.221		0.22	
0.287	0.320	0.40	0
0.235		0.51	
0.309	0.307	0.37	0
0.246		0.49	
0.671	0.768	0.94	0
0.569		1.54	

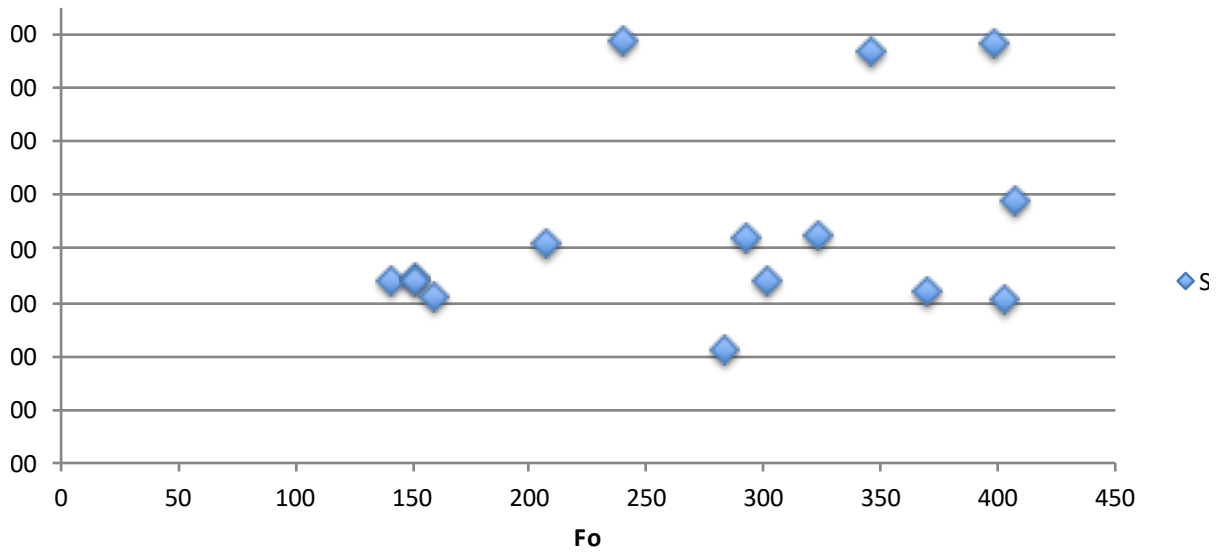


0.595	0.787	1.40	0
0.486		2.04	
0.614	0.785	1.02	0
0.521		1.50	





dark adapted results - signal strength check



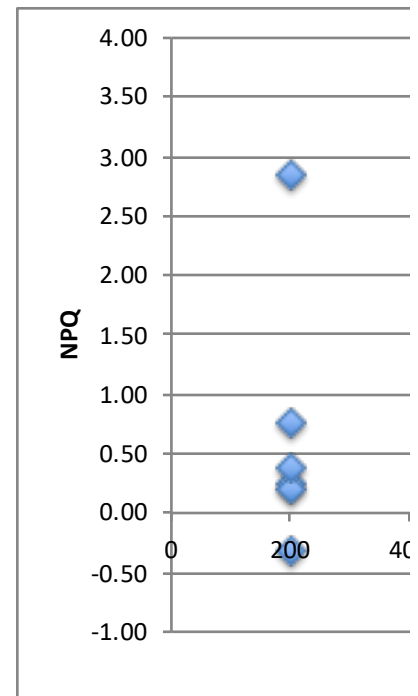
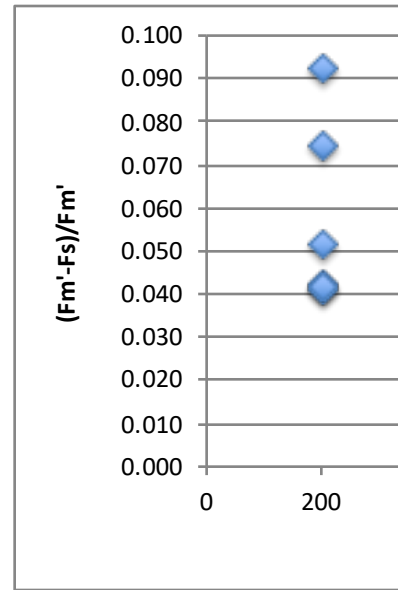
Fv/Fm

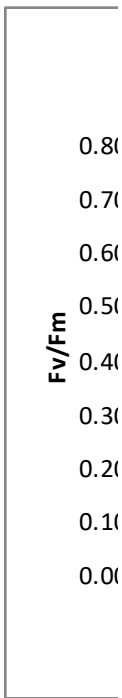
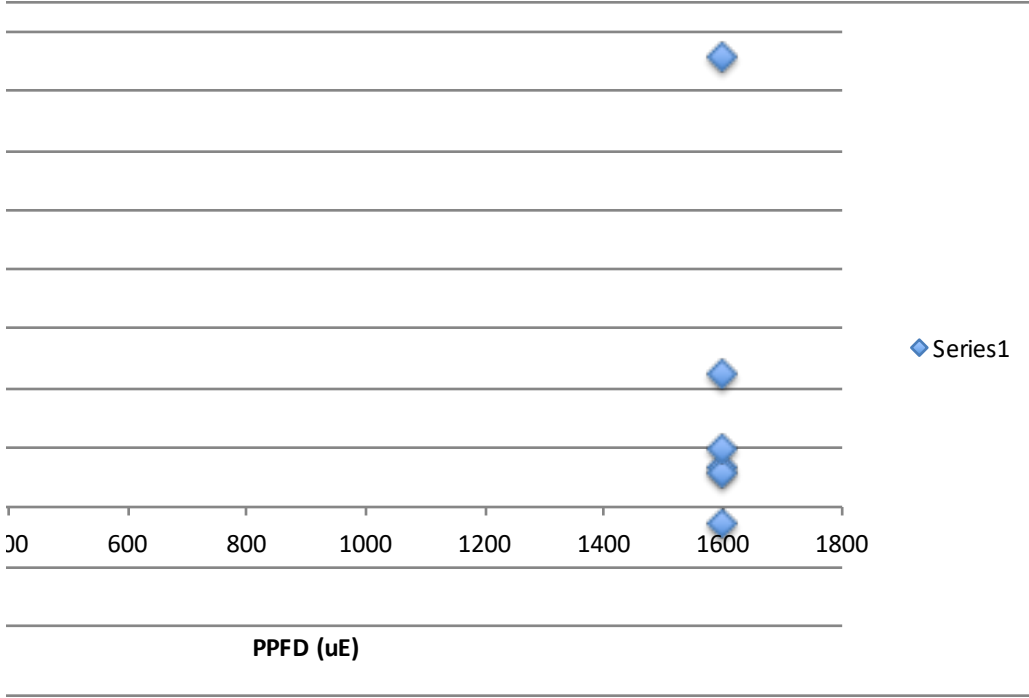
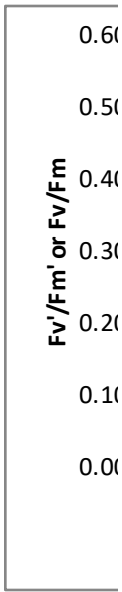
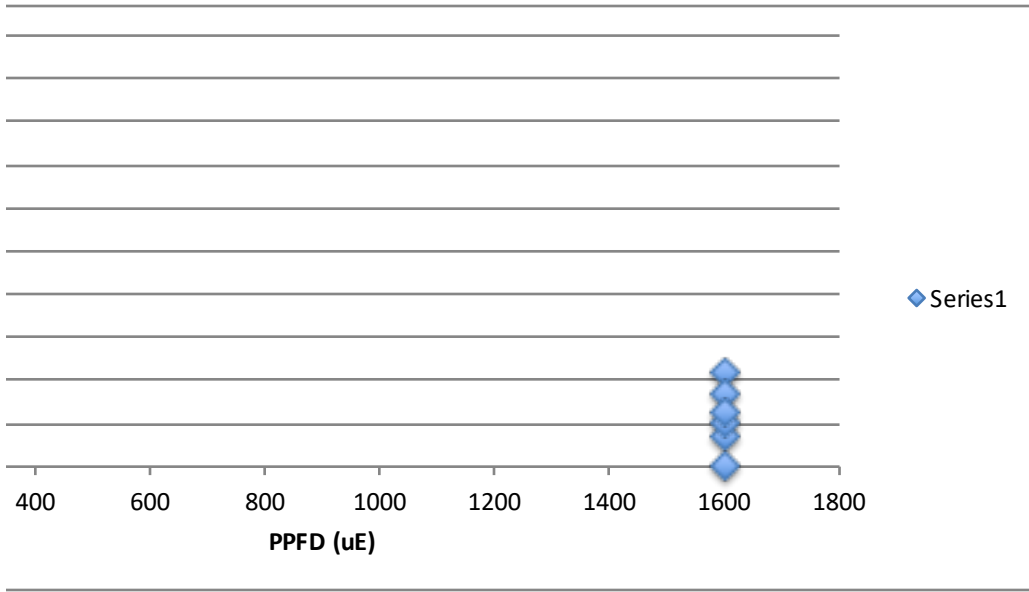
series1

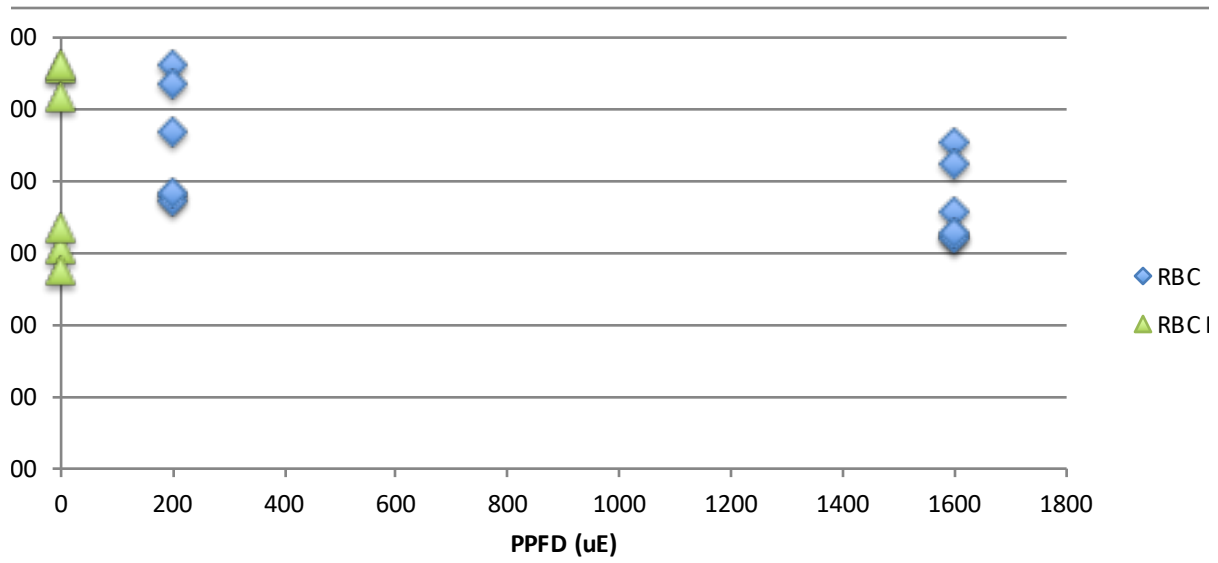
Date	Sample	Pulses in light			
		Pulse Time	Fm'	Fs	Qin
190215	190215 pmup B1 R1	1026	193.5	183.5	200
		1031	156	154.9	1600
190215	190215 pmup B1 R2	1042	411.8	373.9	200
		1047	340.9	333.5	1600
190215	190215 pmup B1 R3	1100	518.4	496.5	200
		1105	416.8	409.8	1600
190215	190215 pipo B1 R1	1135	195.6	187.6	200
		1140	179.7	179.7	1600
190215	190215 pipo B1 R2	1151	161.3	154.6	200
		1156	148.6	147.1	1600
190215	190215 pipo B1 R3	1212	176.6	163.5	200
		1217	161.8	159.8	1600

Tleaf	After Dark Pulse			After Dark adapting		calculated (Fm'-Fs)/Fm'
	Fv'	Fs	Fo'	Fm	Fo	
5.6 7.8	71	154.9	85.2	745.642	329.356	0.052 0.007
7.1 9.4	122	333.5	218.8	724.658	318.822	0.092 0.022
7.2 8.7	177	409.8	240	354.901	171.233	0.042 0.017
5.6 7.3	58	179.7	121.6	240.954	167.489	0.041 0.000
5.1 7.5	47	147.1	101.2	191.598	138.7	0.042 0.010
5.7 5.7	53	159.8	109	241.261	160.256	0.074 0.012

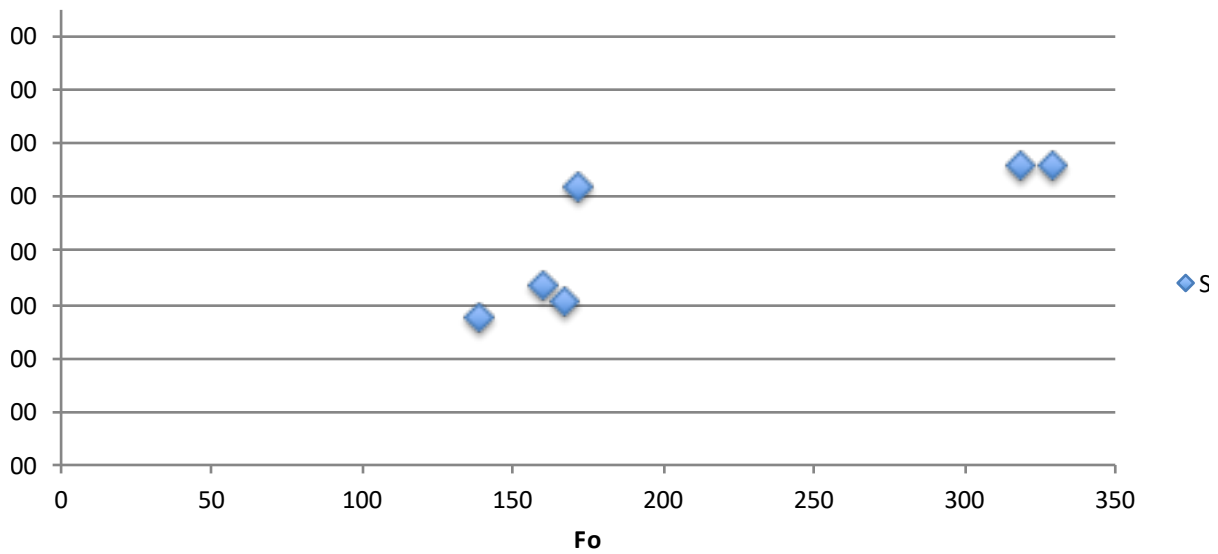
calculated Fv'/Fm'	calculated Fv/Fm	calculated NPQ	for plotting Fv/Fm
0.560	0.558	2.85	0
0.454		3.78	
0.469	0.560	0.76	0
0.358		1.13	
0.537	0.518	-0.32	0
0.424		-0.15	
0.378	0.305	0.23	0
0.323		0.34	
0.373	0.276	0.19	0
0.319		0.29	
0.383	0.336	0.37	0
0.326		0.49	







dark adapted results - signal strength check



Fv/Fm

series1

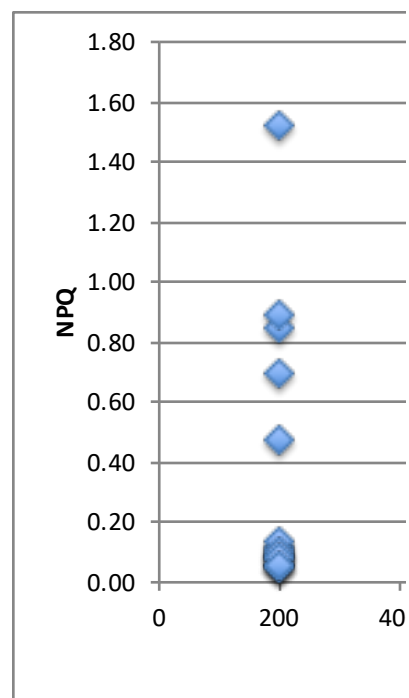
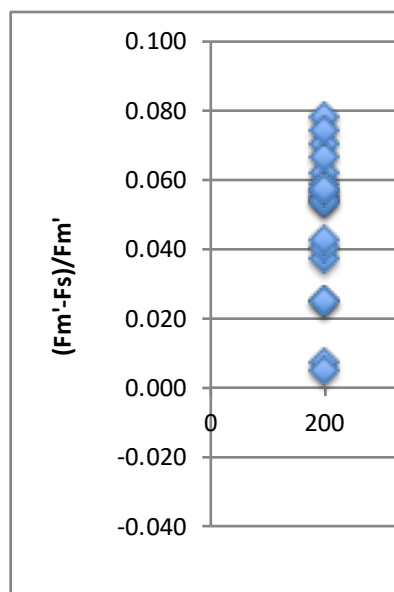
Date	Sample	Pulses in light			
		Pulse Time	Fm'	Fs	Qin
190219	190219 jccm B1 R1	1158	263.1	246.8	200
		1203	251.5	249.5	1600
190219	190219 jccm B1 R2	1213	290.6	270.2	200
		1218	270.2	265.9	1600
190219	190219 jccm B1 R3	1228	244.5	231	200
		1233	232.1	229.6	1600
190219	190219 pars B1 R1	1245	105	102.4	200
		1250	97.1	97.5	1600
190219	190219 pars B1 R2	1300	138.6	133.4	200
		1305	126.8	126.6	1600
190219	190219 pars B1 R3	1315	213.3	204.7	200
		1320	195.3	194	1600
190219	190219 pif B1 R1	1331	205.3	194.3	200
		1336	182.4	181.2	1600
190219	190219 pif B1 R2	1346	288.7	273	200
		1351	255.2	253.8	1600
190219	190219 pif B1 R3	1402	231.3	221.4	200
		1407	219.7	218.9	1600
190219	190219 psme B1 R1	1502	125.9	122.8	200
		1507	114.1	114.8	1600
190219	190219 psme B1 R2	1518	80.2	79.6	200
		1523	78.1	78.2	1600
190219	190219 psme B1 R3	1532	85.8	85.4	200
		1538	82.3	83.9	1600
190219	190219 sgpb B1 R1	1548	305.8	287.9	200
		1553	274	271.6	1600

190219	190219	sgpb B1 R2	1603	308.6	288.1	200
			1608	274.8	271.1	1600
190219	190219	sgpb B1 R3	1617	187.1	176.5	200
			1622	174.2	172.4	1600
190219	190219	celi B1 R1	1632	775.5	714.8	200
			1637	600.9	594.4	1600
190219	190219	celi B1 R2	1645	1206.9	1137.4	200
			1650	877.2	872.4	1600
190219	190219	celi B1 R3	1659	895.3	828.5	200
			1704	650.6	646	1600

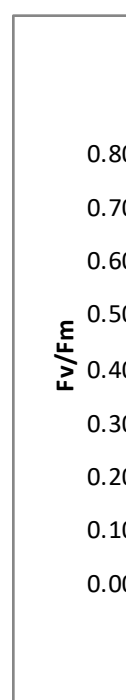
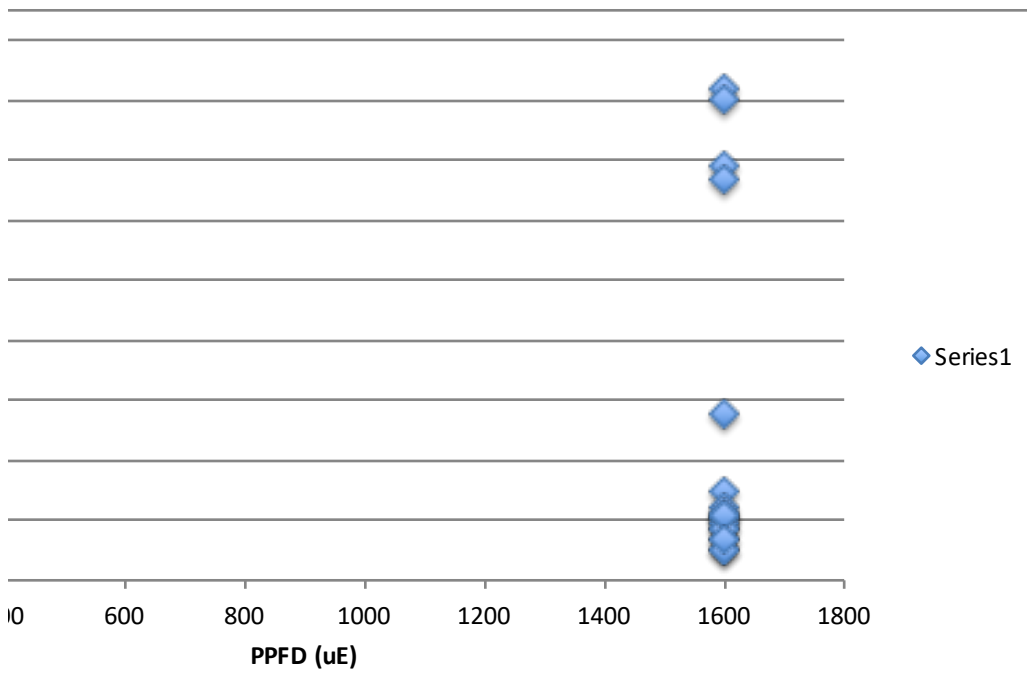
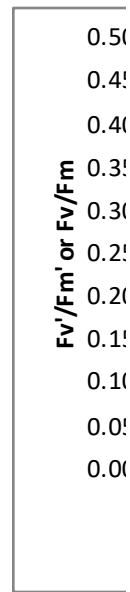
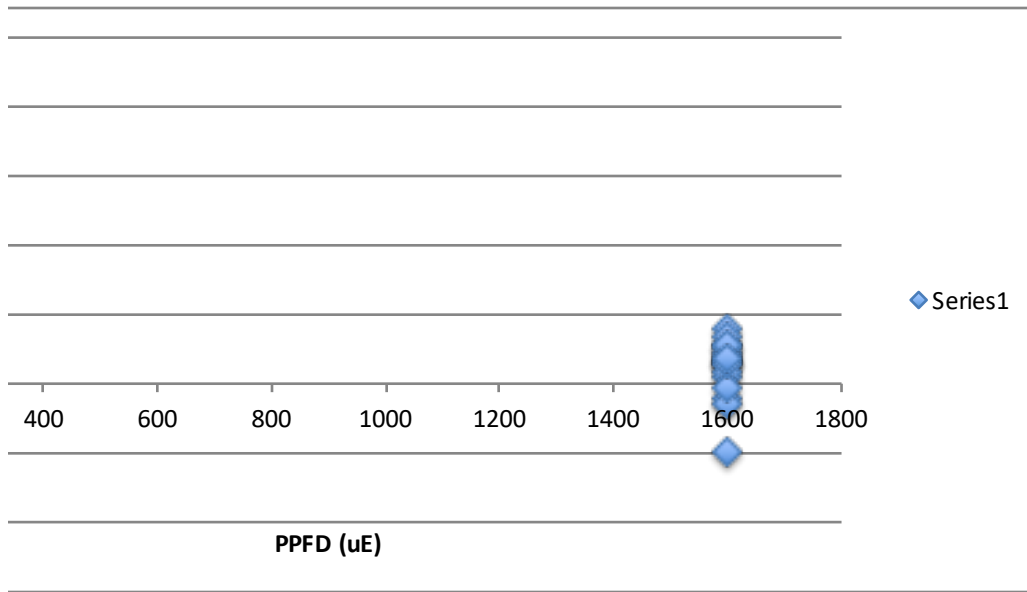
Tleaf	After Dark Pulse			After Dark adapting		calculated (Fm'-Fs)/Fm'
	Fv'	Fs	Fo'	Fm	Fo	
5.1	61	249.5	190.4	663.773	379.122	0.062
5.1						0.008
5.1	72	265.9	198.4	307.01	215.822	0.070
5.0						0.016
5.1	54	229.6	178.6	255.41	194.3	0.055
5.0						0.011
5.2	24	97.5	72.8	117.039	91.0444	0.025
5.2						-0.004
5.2	39	126.6	87.4	148.65	109	0.038
5.2						0.002
5.2	52	194	143.4	236.468	170.544	0.040
5.1						0.007
5.2	54	181.2	128.8	223.874	161.333	0.054
5.1						0.007
5.2	68	253.8	186.8	316.158	227.844	0.054
5.3						0.005
5.2	59	218.9	161	341.484	236.556	0.043
5.1						0.004
5.2	24	114.8	89.6	135.862	118.856	0.025
5.2						-0.006
5.2	24	78.2	54.4	91.2256	77.5889	0.007
5.1						-0.001
5.2	14	82.9	68.6	90.6144	81.2444	0.005
5.2						-0.019
5.0	100	271.6	173.6	335.068	205.544	0.059
5.1						0.009

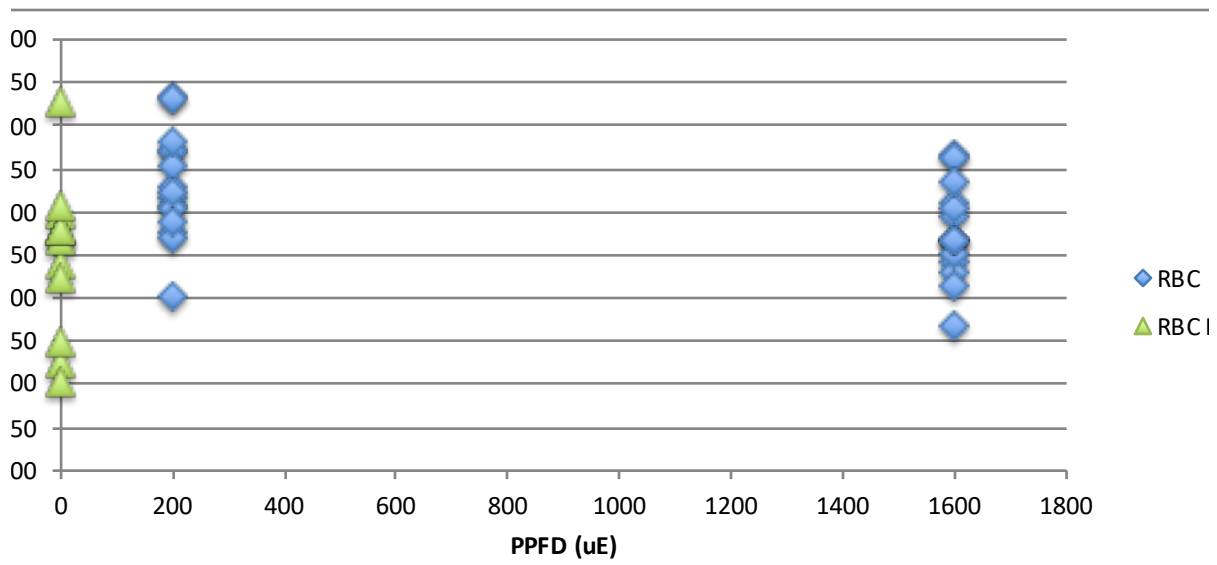
5.1	99	271.1	175.4	335.194	205.922	0.066
5.1						0.013
5.1	58	172.4	116	198.213	144.411	0.057
5.0						0.010
5.1	256	594.4	345.2	1429.34	444.378	0.078
5.1						0.011
5.0	397	872.4	479.8	2049.5	605.5	0.058
5.1						0.005
5.1	297	646	354	1693.27	586.922	0.075
5.1						0.007

calculated Fv'/Fm'	calculated Fv/Fm	calculated NPQ	for plotting Fv/Fm
0.276 0.243	0.429	1.52 1.64	0
0.317 0.266	0.297	0.06 0.14	0
0.270 0.231	0.239	0.04 0.10	0
0.307 0.250	0.222	0.11 0.21	0
0.369 0.311	0.267	0.07 0.17	0
0.328 0.266	0.279	0.11 0.21	0
0.373 0.294	0.279	0.09 0.30	0
0.353 0.268	0.279	0.10 0.24	0
0.304 0.267	0.307	0.48 0.55	0
0.288 0.215	0.125	0.08 0.19	0
0.322 0.303	0.149	0.14 0.17	0
0.200 0.166	0.103	0.06 0.10	0
0.432 0.366	0.387	0.10 0.22	0

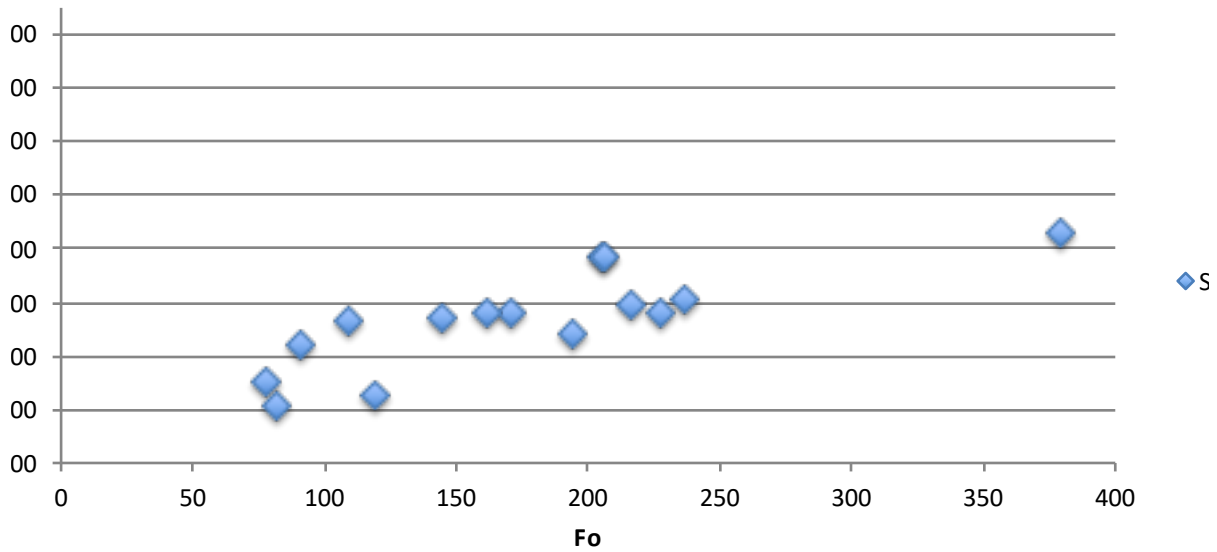


0.432	0.386	0.09	0
0.362		0.22	
0.380	0.271	0.06	0
0.334		0.14	
0.555	0.689	0.84	0
0.426		1.38	
0.602	0.705	0.70	0
0.453		1.34	
0.605	0.653	0.89	0
0.456		1.60	





dark adapted results - signal strength check



Fv/Fm

series1

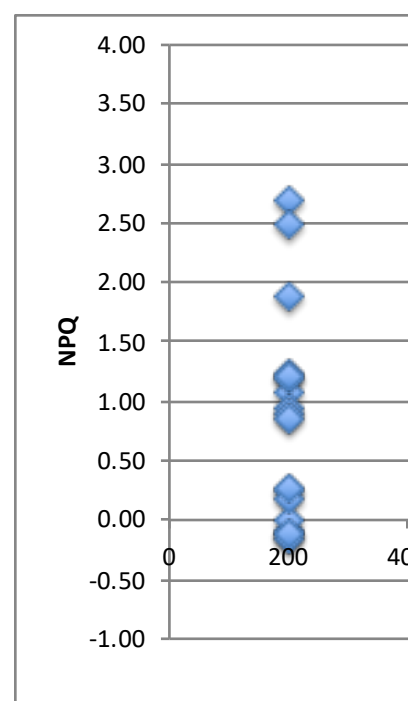
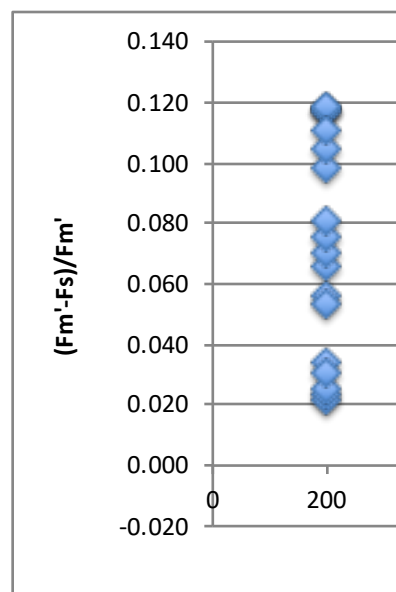
Date	Sample	Pulses in light			
		Pulse Time	Fm'	Fs	Qin
190220	190220 cagp B1 R1	1212	606.5	535.9	200
		1217	442	435.8	1600
190220	190220 cagp B1 R2	1225	512.7	452.4	200
		1230	409.2	403.4	1600
190220	190220 cagp B1 R3	1238	502.5	443.3	200
		1243	416.7	411.3	1600
190220	190220 cunp B1 R1	1251	83.6	81.8	200
		1256	80.4	80.4	1600
190220	190220 cunp B1 R2	1304	153.7	150.1	200
		1309	143.3	143.3	1600
190220	190220 cunp B1 R3	1317	128.9	125.7	200
		1322	117.8	117.9	1600
190220	190220 jvgc B1 R1	1330	602.4	568.7	200
		1335	520.4	519.5	1600
190220	190220 jvgc B1 R2	1343	677.2	632.7	200
		1348	587.4	583.7	1600
190220	190220 jvgc B1 R3	1357	357.7	332.6	200
		1402	306.5	304.5	1600
190220	190220 piog B1 R1	1423	332	306.9	200
		1428	297.3	293.5	1600
190220	190220 piog B1 R2	1437	241.1	212.6	200
		1442	209.9	206.5	1600
190220	190220 piog B1 R3	1450	265.8	239.6	200
		1455	240.7	236.9	1600
190220	190220 ppsd B1 R1	1503	144	139.1	200
		1508	132	131.9	1600

190220 190220 ppsd B1 R2	1516	124.2	120.4	200
	1521	118	118.1	1600
190220 190220 ppsd B1 R3	1529	88.8	84.1	200
	1534	85.2	84.4	1600
190220 190220 taca B1 R1	1542	727.1	668.7	200
	1547	688	675.4	1600
190220 190220 taca B1 R2	1555	426.3	381.9	200
	1600	384.4	375.4	1600
190220 190220 taca B1 R3	1608	418.4	372.1	200
	1613	399.9	389.9	1600

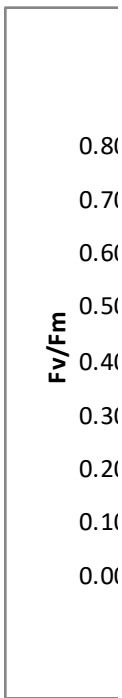
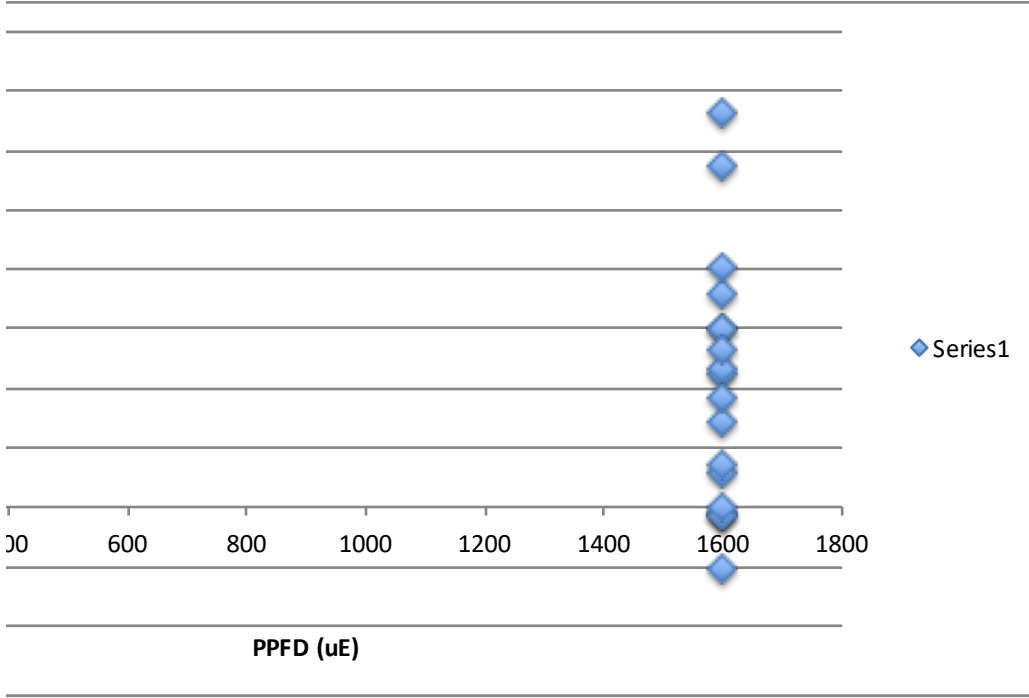
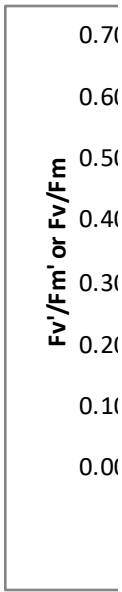
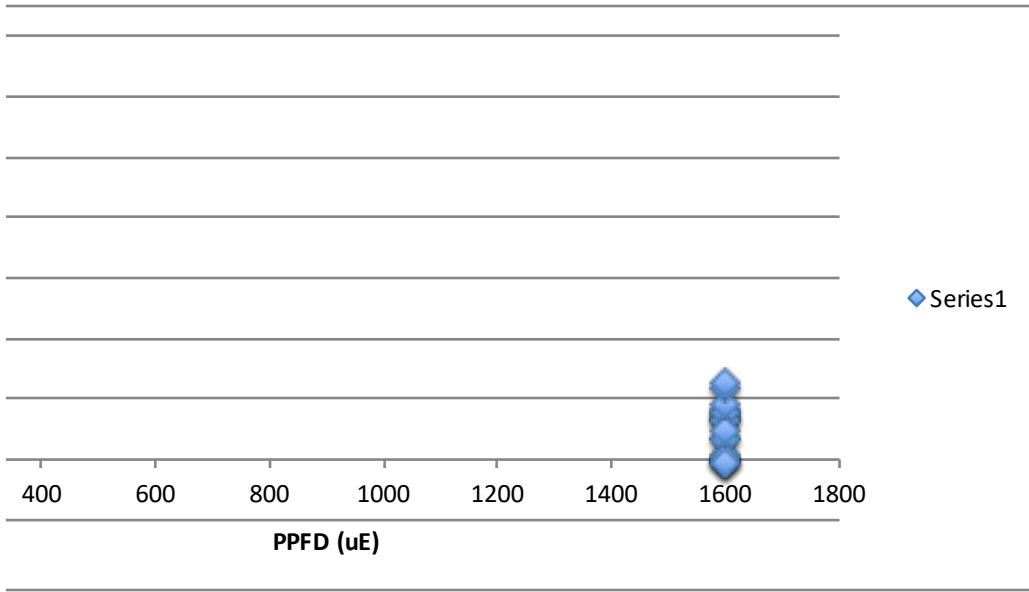
Tleaf	After Dark Pulse			After Dark adapting		calculated (Fm'-Fs)/Fm'
	Fv'	Fs	Fo'	Fm	Fo	
5.0	139	435.8	303	756.371	280.056	0.116
5.0						0.014
5.2	139	403.4	270	1141.2	395.011	0.118
4.9						0.014
5.1	133	411.3	284	1042.32	392.922	0.118
5.1						0.013
5.1	24	80.4	56.2	75.2304	62.9778	0.022
5.1						0.000
5.2	43	143.3	100.2	135.248	110.389	0.023
5.0						0.000
5.0	47	117.9	70.4	250.189	195.078	0.025
5.1						-0.001
5.0	265	519.5	255.6	600.561	267.167	0.056
5.0						0.002
5.1	281	583.7	306.2	1275.16	533.056	0.066
5.1						0.006
5.1	155	304.5	151.8	1320.74	490.456	0.070
5.1						0.007
5.0	62	293.5	234.8	277.838	129.533	0.076
5.1						0.013
5.1	61	206.5	149.2	523.999	256.389	0.118
5.0						0.016
5.0	63	236.9	177.8	236.782	107.822	0.099
5.0						0.016
5.0	28	131.9	103.6	168.885	128.244	0.034
5.0						0.001

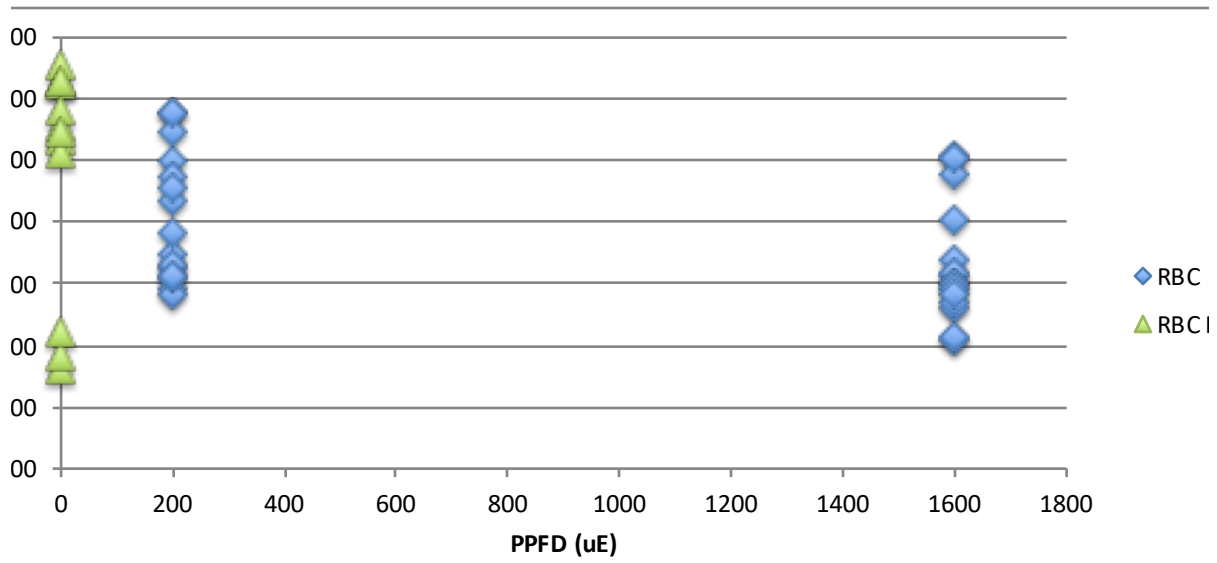
5.1	32	118.1	86	273.437	191.522	0.031
5.0						-0.001
5.1	24	84.4	61.2	163.346	113.678	0.053
5.1						0.009
5.1	298	675.4	390.4	926.986	406.633	0.080
5.1						0.018
5.0	160	375	224.4	1487.37	578.644	0.104
5.0						0.023
5.1	146	389.9	253.8	1205.36	515.122	0.111
5.1						0.025

calculated Fv'/Fm'	calculated Fv/Fm	calculated NPQ	for plotting Fv/Fm
0.500 0.314	0.630	0.25 0.71	0
0.473 0.340	0.654	1.23 1.79	0
0.435 0.318	0.623	1.07 1.50	0
0.328 0.301	0.163	-0.10 -0.06	0
0.348 0.301	0.184	-0.12 -0.06	0
0.454 0.402	0.220	0.94 1.12	0
0.576 0.509	0.555	0.00 -0.52	0
0.548 0.479	0.582	0.88 1.17	0
0.576 0.505	0.629	2.69 3.31	0
0.293 0.210	0.534	-0.16 -0.07	0
0.381 0.289	0.511	1.17 1.50	0
0.331 0.261	0.545	-0.11 -0.02	0
0.281 0.215	0.241	0.17 0.28	0

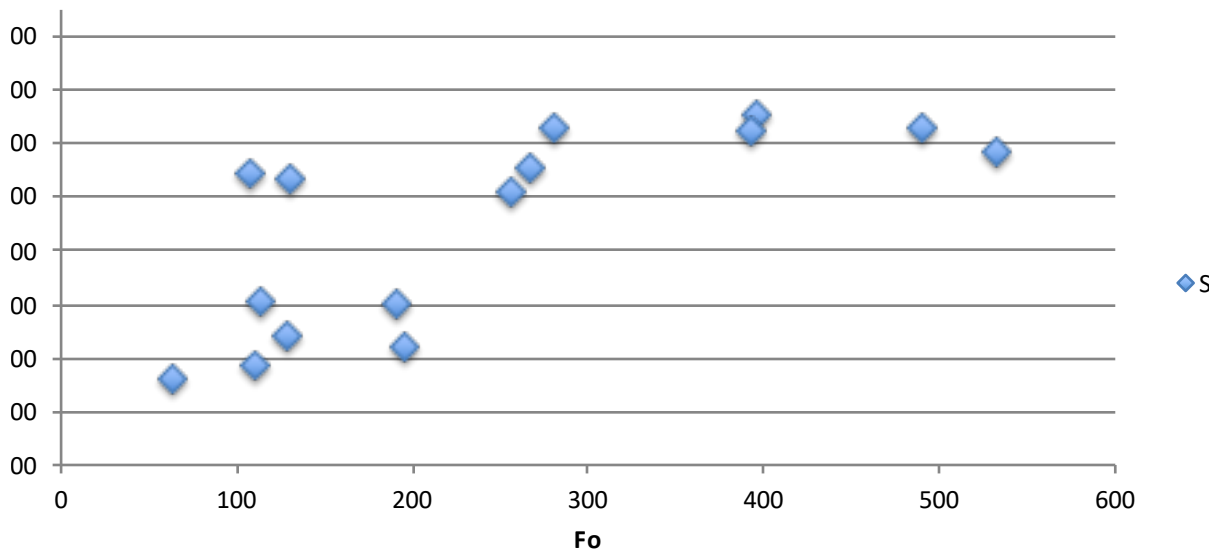


0.308	0.300	1.20	0
0.271		1.32	
0.311	0.304	0.84	0
0.282		0.92	
0.463	0.561	0.27	0
0.433		0.35	
0.474	0.611	2.49	0
0.416		2.87	
0.393	0.573	1.88	0
0.365		2.01	





dark adapted results - signal strength check



Fv/Fm

series1

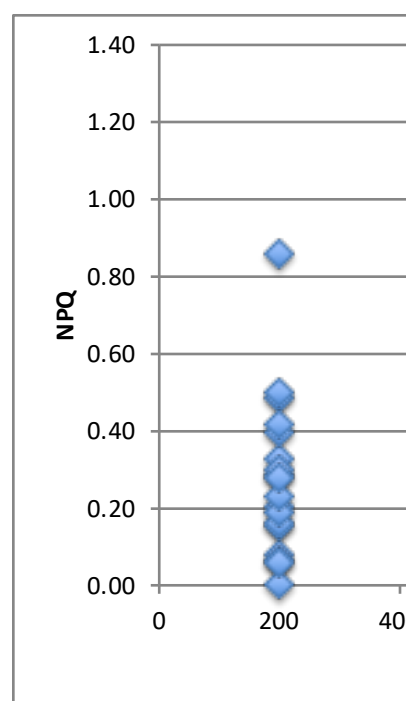
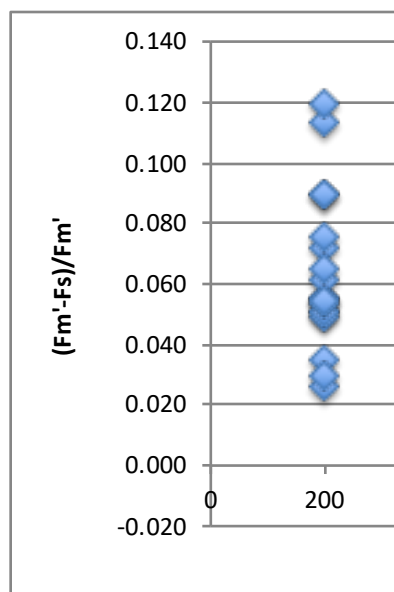
Date	Sample	Pulses in light			
		Pulse Time	Fm'	Fs	Qin
190221	190221 piar B1 R1	1126	424.9	401.4	200
		1131	336.5	334.3	1600
190221	190221 piar B1 R2	1140	318.8	302.6	200
		1145	264.1	261.3	1600
190221	190221 piar B1 R3	1153	294.4	273.3	200
		1158	243.6	239.9	1600
190221	190221 pini B1 R1	1308	178.7	170	200
		1313	161.2	160.1	1600
190221	190221 pini B1 R2	1324	212.6	205.2	200
		1329	197.9	197.2	1600
190221	190221 pini B1 R3	1337	239.9	233.7	200
		1342	223.7	224.6	1600
190221	190221 cdcp B1 R1	1350	884	857.6	200
		1355	757.8	756.2	1600
190221	190221 cdcp B1 R2	1403	666	629.1	200
		1408	572.5	569.2	1600
190221	190221 cdcp B1 R3	1416	783.1	743.1	200
		1421	637.8	634	1600
190221	190221 tamd B1 R1	1511	544	503.1	200
		1516	418.1	413.2	1600
190221	190221 tamd B1 R2	1524	450.5	422.7	200
		1529	399.2	395.7	1600
190221	190221 tamd B1 R3	1537	604	571.9	200
		1542	522	516.2	1600
190221	190221 juco B1 R1	1552	458.8	433.9	200
		1557	375.7	371.4	1600

190221	190221 juco B1 R2	1605	279	261	200
		1610	245.2	240.7	1600
190221	190221 juco B1 R3	1618	371.5	338.2	200
		1623	339.4	333	1600
190221	190221 pisy B1 R1	1632	748.5	681.5	200
		1637	564.9	552.7	1600
190221	190221 pisy B1 R2	1645	1252.3	1110.4	200
		1650	1001.1	982.6	1600
190221	190221 pisy B1 R3	1658	898.7	791.6	200
		1703	718.7	703.7	1600

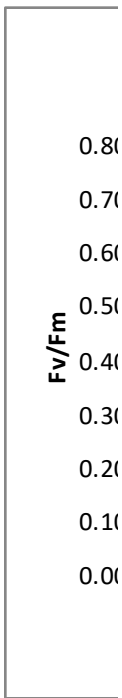
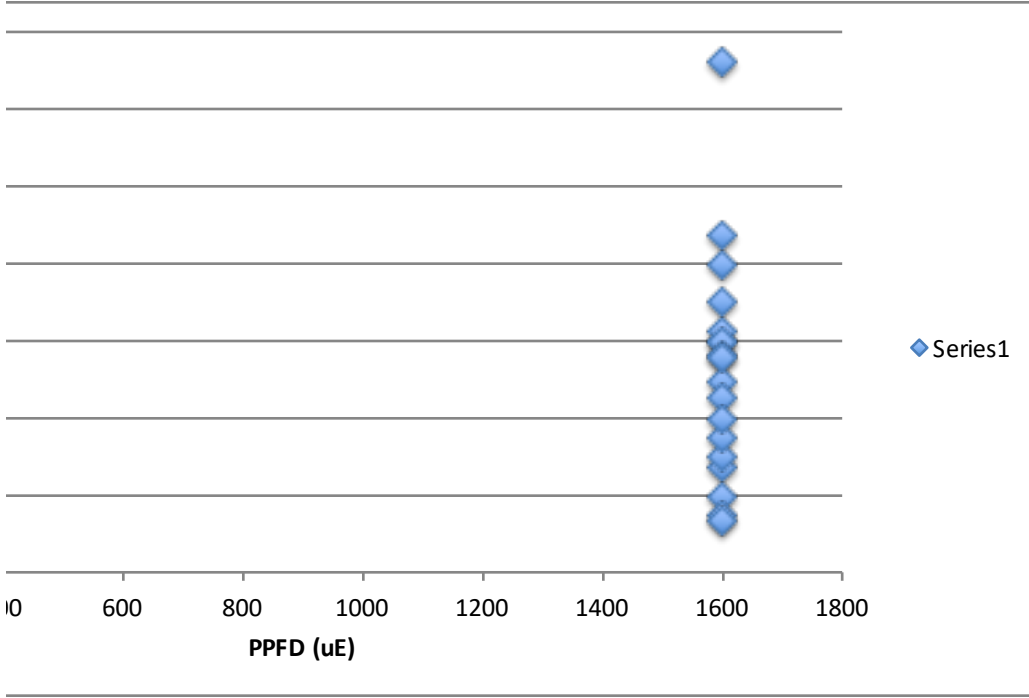
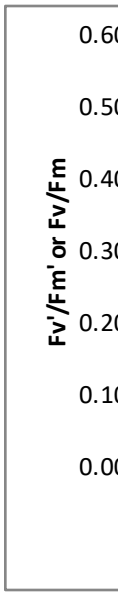
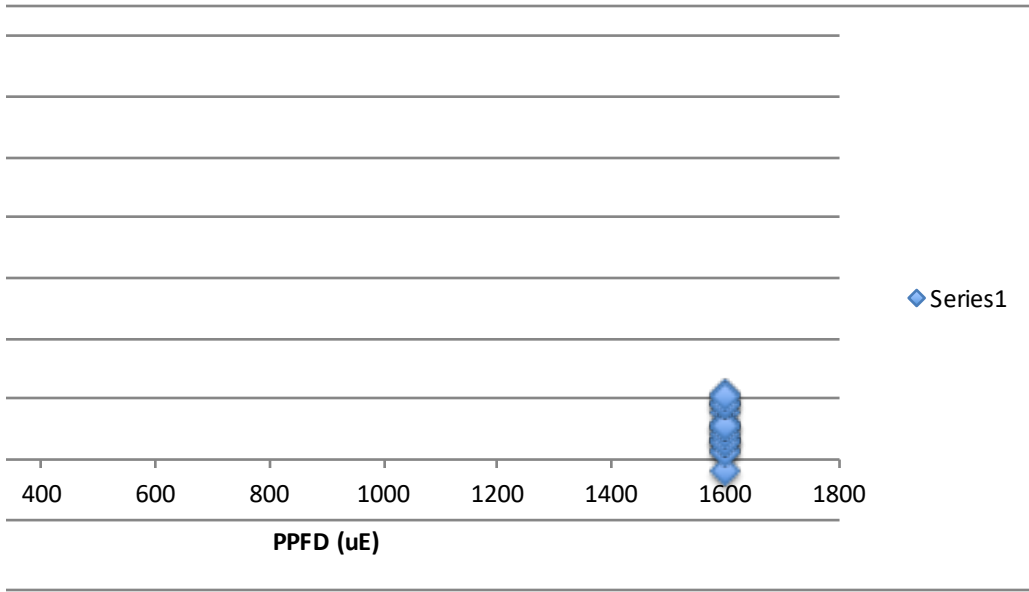
Tleaf	After Dark Pulse			After Dark adapting		calculated (Fm'-Fs)/Fm'
	Fv'	Fs	Fo'	Fm	Fo	
5.1	110	334.3	226.8	426.662	221.411	0.055
5.2						0.007
5.1	92	261.3	172.4	422.139	233.311	0.051
5.1						0.011
5.1	76	239.9	167.6	438.27	240.6	0.072
5.1						0.015
5.1	44	160.1	116.8	192.454	147.511	0.049
5.1						0.007
5.2	49	197.2	148.4	226.821	181.278	0.035
5.2						0.004
5.2	49	224.6	174.4	253.939	220.144	0.026
5.1						-0.004
5.1	177	756.2	580.4	1133.15	790.256	0.030
5.0						0.002
5.2	153	569.2	419.2	927.885	547.9	0.055
5.2						0.006
5.2	167	634	471	1019.56	643.678	0.051
5.2						0.006
5.0	134	413.2	284.4	652.722	368.933	0.075
5.1						0.012
5.0	123	395.7	276.4	519.254	337.633	0.062
5.0						0.009
5.1	166	516.2	355.8	702.714	445.567	0.053
5.2						0.011
5.1	142	371.4	233.8	545.101	304.644	0.054
5.0						0.011

5.1	62	240.7	183.2	342.238	238.411	0.065
5.1						0.018
5.0	92	333	247.4	527.254	345.044	0.090
5.0						0.019
5.2	210	552.7	354.8	958.861	451.444	0.090
5.1						0.022
5.2	408	982.6	592.8	2323.28	769.033	0.113
5.2						0.018
5.3	255	703.7	463.4	1345.36	575.911	0.119
5.3						0.021

calculated Fv'/Fm'	calculated Fv/Fm	calculated NPQ	for plotting Fv/Fm
0.466 0.326	0.481	0.00 0.27	0
0.459 0.347	0.447	0.32 0.60	0
0.431 0.312	0.451	0.49 0.80	0
0.346 0.275	0.234	0.08 0.19	0
0.302 0.250	0.201	0.07 0.15	0
0.273 0.220	0.133	0.06 0.14	0
0.343 0.234	0.303	0.28 0.50	0
0.371 0.268	0.410	0.39 0.62	0
0.399 0.262	0.369	0.30 0.60	0
0.477 0.320	0.435	0.20 0.56	0
0.386 0.308	0.350	0.15 0.30	0
0.411 0.318	0.366	0.16 0.35	0
0.490 0.378	0.441	0.19 0.45	0



0.343	0.303	0.23	0
0.253		0.40	
0.334	0.346	0.42	0
0.271		0.55	
0.526	0.529	0.28	0
0.372		0.70	
0.527	0.669	0.86	0
0.408		1.32	
0.484	0.572	0.50	0
0.355		0.87	



Fv/Fm

series1

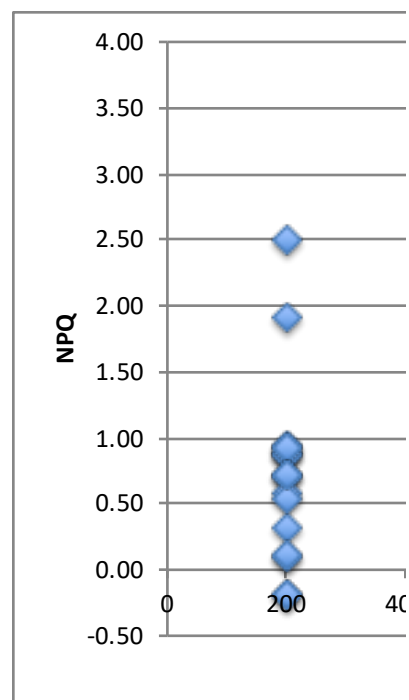
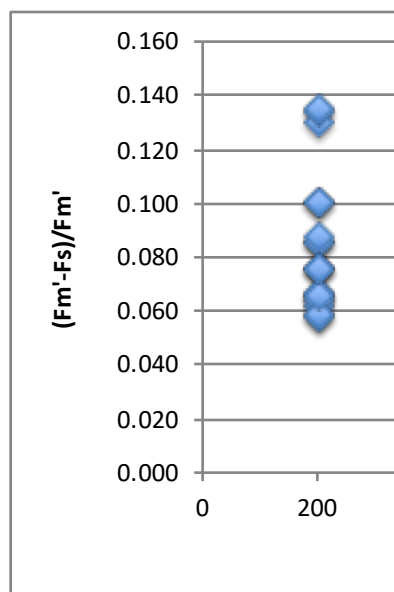
Date	Sample	Pulses in light			
		Pulse Time	Fm'	Fs	Qin
190222	190222 pmgg B1 R1	1224	316.4	289.3	200
		1229	255.9	254	1600
190222	190222 pmgg B1 R2	1237	236.1	212.5	200
		1242	189.7	188.1	1600
190222	190222 pmgg B1 R3	1250	353.8	318.2	200
		1255	288.2	285.4	1600
190222	190222 pian B1 R1	1312	499.5	466.6	200
		1317	428.7	425.3	1600
190222	190222 pian B1 R2	1326	410.7	386.9	200
		1332	356.3	354	1600
190222	190222 pian B1 R3	1341	430	397.6	200
		1346	366.2	363.1	1600
190222	190222 piap B1 R1	1356	293.3	275.1	200
		1402	255.1	252.3	1600
190222	190222 piap B1 R2	1411	347.9	324.8	200
		1416	291.5	288.5	1600
190222	190222 piap B1 R3	1425	261.7	245	200
		1430	216.4	214.8	1600
190222	190222 pipp B1 R1	1438	353.7	307.7	200
		1443	288	282.4	1600
190222	190222 pipp B1 R2	1452	271.8	235.4	200
		1457	231.5	224.9	1600
190222	190222 pipp B1 R3	1505	399.3	345.6	200
		1511	339.2	330.5	1600
190222	190222 psgv B1 R1	1521	353.5	332.9	200
		1526	323.1	320.3	1600

190222 190222 psgv B1 R2	1534	563.9	521.3	200
	1539	508.6	503.1	1600
190222 190222 psgv B1 R3	1549	259	241.9	200
	1554	242.6	239.5	1600
190222 190222 cubp B1 R1	1603	219.3	200.6	200
	1608	187.7	186.2	1600
190222 190222 cubp B1 R2	1616	267.4	247.2	200
	1621	238.8	236.7	1600
190222 190222 cubp B1 R3	179.7	179.7	164	200
	162.3	162.3	161.5	1600

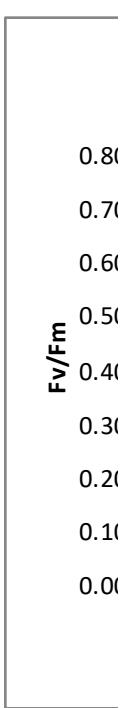
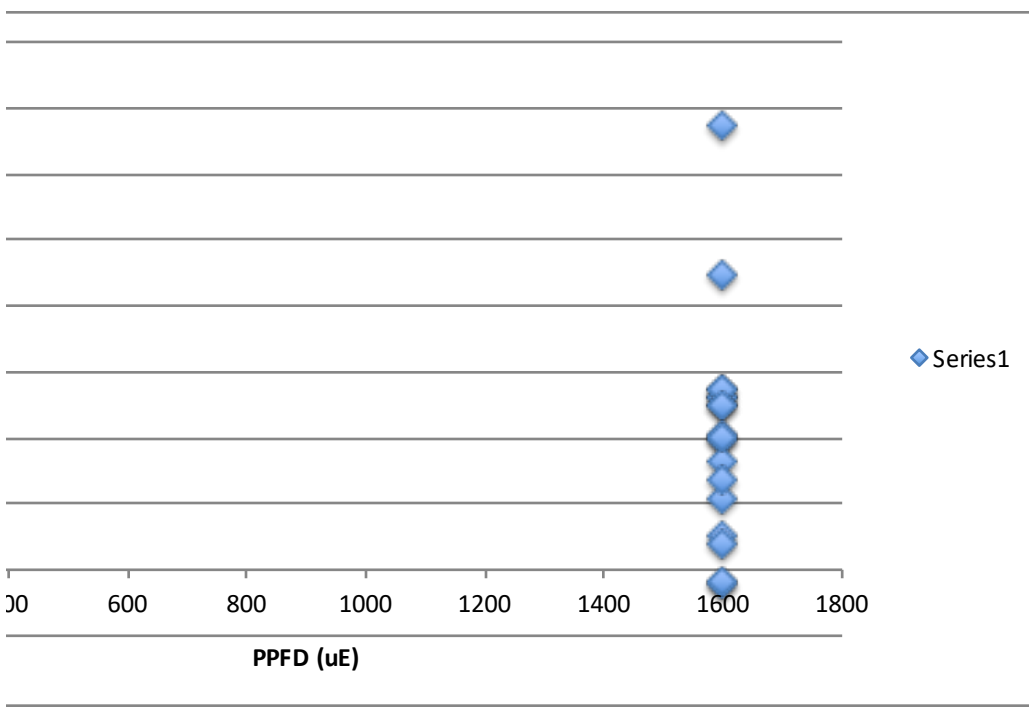
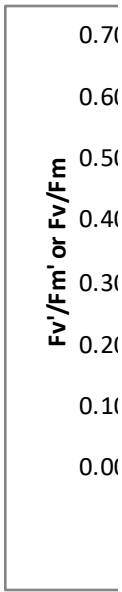
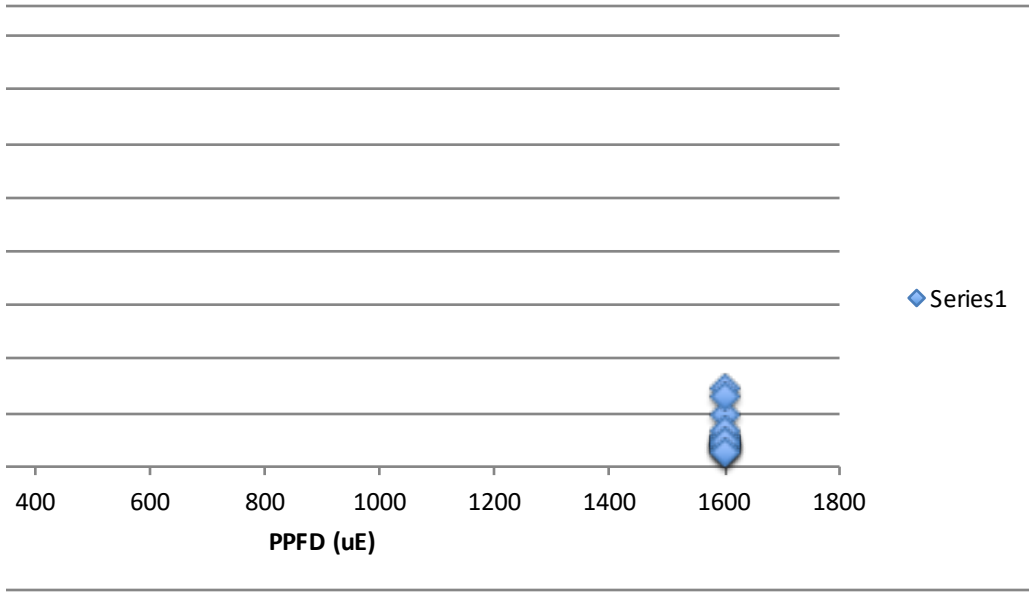
Tleaf	After Dark Pulse			After Dark adapting		calculated (Fm'-Fs)/Fm'
	Fv'	Fs	Fo'	Fm	Fo	
5.1	52	254	204.2	588.509	341.989	0.086
5.2						0.007
5.1	50	188.1	139.8	827.478	437.044	0.100
5.1						0.008
5.1	72	285.4	216.6	665.907	379.367	0.101
5.1						0.010
5.1	125	425.3	304	845.238	311.889	0.066
5.0						0.008
5.0	92	354	264.8	648.283	269.511	0.058
5.1						0.006
5.0	102	363.1	264.2	563.91	309.933	0.075
5.1						0.008
5.2	69	252.3	186	319.099	187.944	0.062
5.1						0.011
5.0	78	288.5	213.6	653.291	289.733	0.066
5.1						0.010
5.1	65	214.8	151	510.114	250.811	0.064
5.1						0.007
5.2	90	282.4	197.6	679.759	306.967	0.130
5.1						0.019
5.1	86	224.9	145.2	519.47	235.578	0.134
5.0						0.029
5.1	105	330.5	234.6	688.285	314.233	0.134
5.1						0.026
5.1	100	320.3	223.2	540.3	323.722	0.058
5.1						0.009

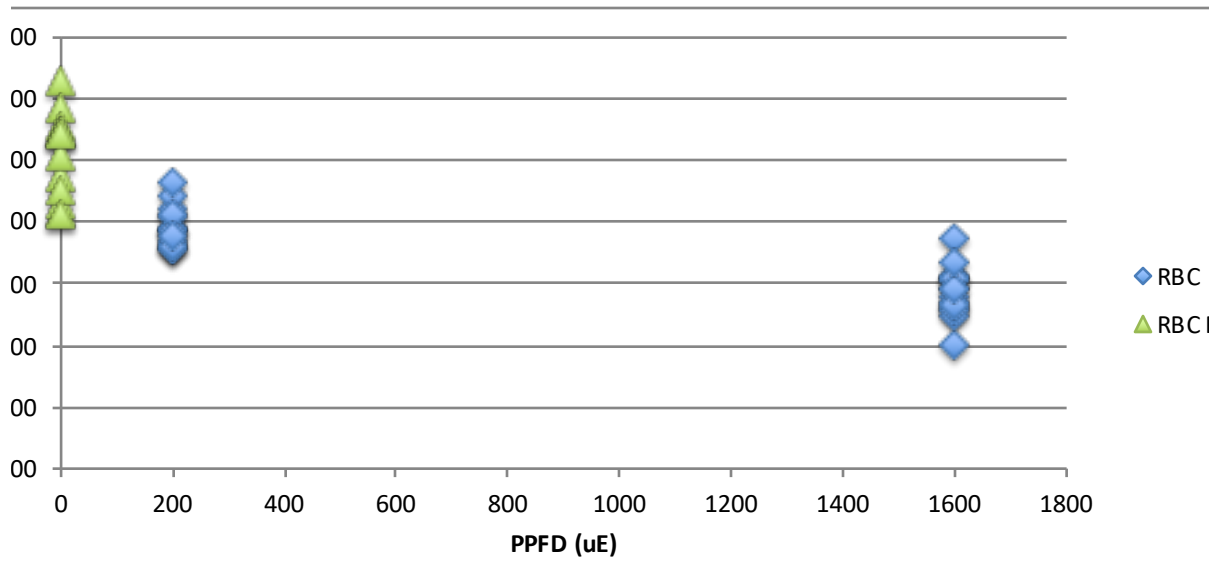
5.1	148	503.1	360.2	455.87	343.011	0.076
5.1						0.011
5.1	82	239.5	161	287.582	227.011	0.066
5.1						0.013
5.0	71	186.2	117	377.36	152.378	0.085
4.0						0.008
5.1	91	236.7	147.4	216.361	121.689	0.076
5.1						0.009
5.1	56	161.5	106.6	524.649	206.589	0.087
5.1						0.005

calculated Fv'/Fm'	calculated Fv/Fm	calculated NPQ	for plotting Fv/Fm
0.355 0.202	0.419	0.86 1.30	0
0.408 0.263	0.472	2.50 3.36	0
0.388 0.248	0.430	0.88 1.31	0
0.391 0.291	0.631	0.69 0.97	0
0.355 0.257	0.584	0.58 0.82	0
0.386 0.279	0.450	0.31 0.54	0
0.366 0.271	0.411	0.09 0.25	0
0.386 0.267	0.557	0.88 1.24	0
0.423 0.302	0.508	0.95 1.36	0
0.441 0.314	0.548	0.92 1.36	0
0.466 0.373	0.547	0.91 1.24	0
0.412 0.308	0.543	0.72 1.03	0
0.369 0.309	0.401	0.53 0.67	0

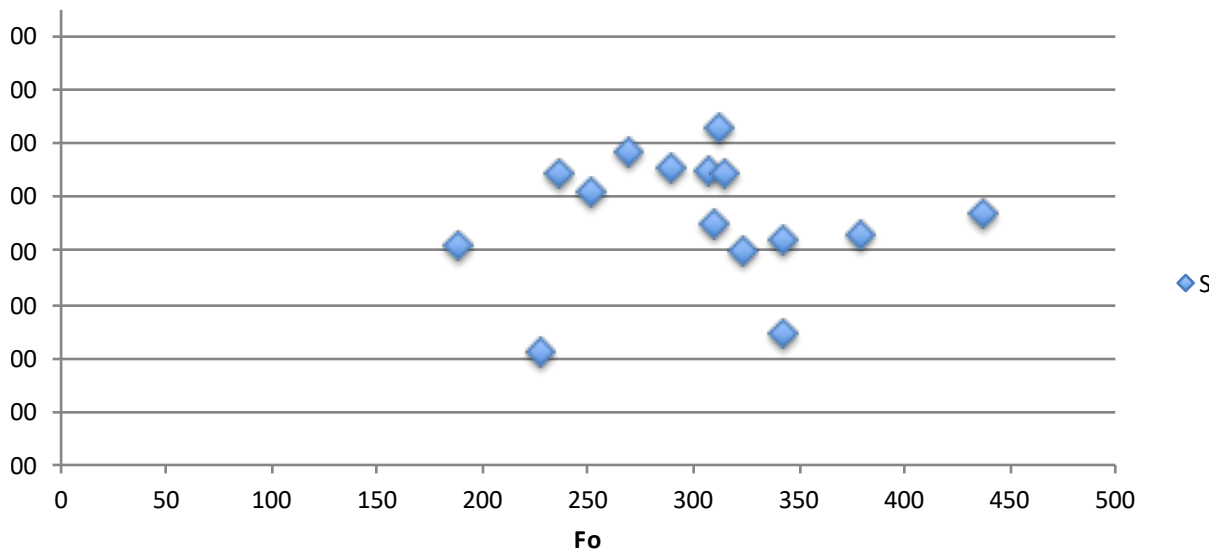


0.361	0.248	-0.19	0
0.292		-0.10	
0.378	0.211	0.11	0
0.336		0.19	
0.466	0.596	0.72	0
0.377		1.01	
0.449	0.438	-0.19	0
0.383		-0.09	
0.407	0.606	1.92	0
0.343		2.23	





dark adapted results - signal strength check



Fv/Fm

series1

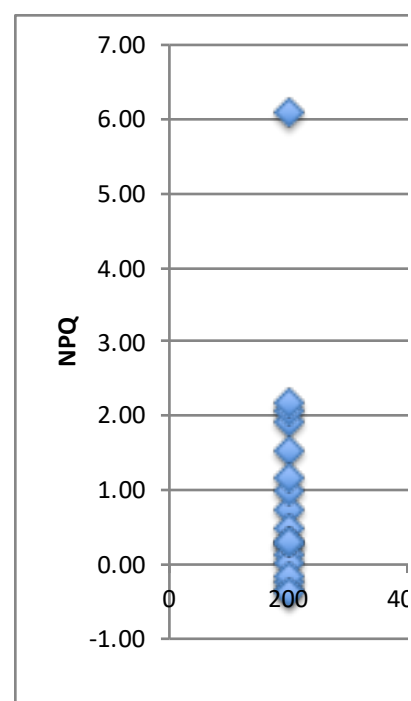
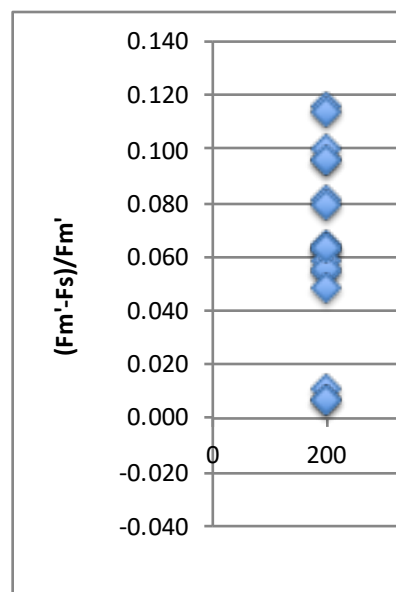
Date	Sample	Pulses in light			
		Pulse Time	Fm'	Fs	Qin
190223	190223 pipu B1 R1	1158	152.8	143	200
		1203	142.8	140.6	1600
190223	190223 pipu B1 R2	1212	138.4	127.2	200
		1217	130.1	128.6	1600
190223	190223 pipu B1 R3	1227	158.1	148.2	200
		1232	150.6	148.8	1600
190223	190223 jswb B1 R1	1240	860.5	778.2	200
		1245	747.8	736.8	1600
190223	190223 jswb B1 R2	1253	417.8	369.5	200
		1258	345.7	340	1600
190223	190223 jswb B1 R3	1307	575.5	517.8	200
		1312	493.8	486.9	1600
190223	190223 picc B1 R1	1320	238.3	225.3	200
		1325	228.7	226.2	1600
190223	190223 picc B1 R2	1333	474.4	428.8	200
		1338	430.1	422.1	1600
190223	190223 picc B1 R3	1346	369.4	327.5	200
		1351	336.3	328.5	1600
190223	190223 piwa B1 R1	1359	89.2	88.2	200
		1404	85.4	86.6	1600
190223	190223 piwa B1 R2	1414	117.4	116.6	200
		1419	109.9	110.9	1600
190223	190223 piwa B1 R3	1427	103.3	102.6	200
		1432	98.8	99.4	1600
190223	190223 abco B1 R1	1440	324.5	298.8	200
		1445	287.6	284.3	1600

190223 190223 abco B1 R2	1453	335.6	314.2	200
	1458	311.1	308.3	1600
190223 190223 abco B1 R3	1506	465	438	200
	1511	439.5	434.4	1600
190223 190223 cade B1 R1	1519	639.7	604.5	200
	1524	554.8	551.1	1600
190223 190223 cade B1 R2	1532	428.8	401.6	200
	1537	378	374.6	1600
190223 190223 cade B1 R3	1545	314.7	299.4	200
	1550	288.4	287.2	1600

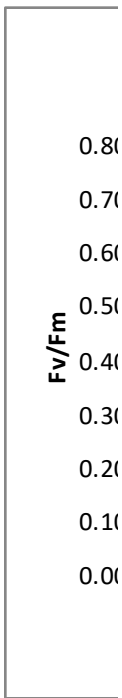
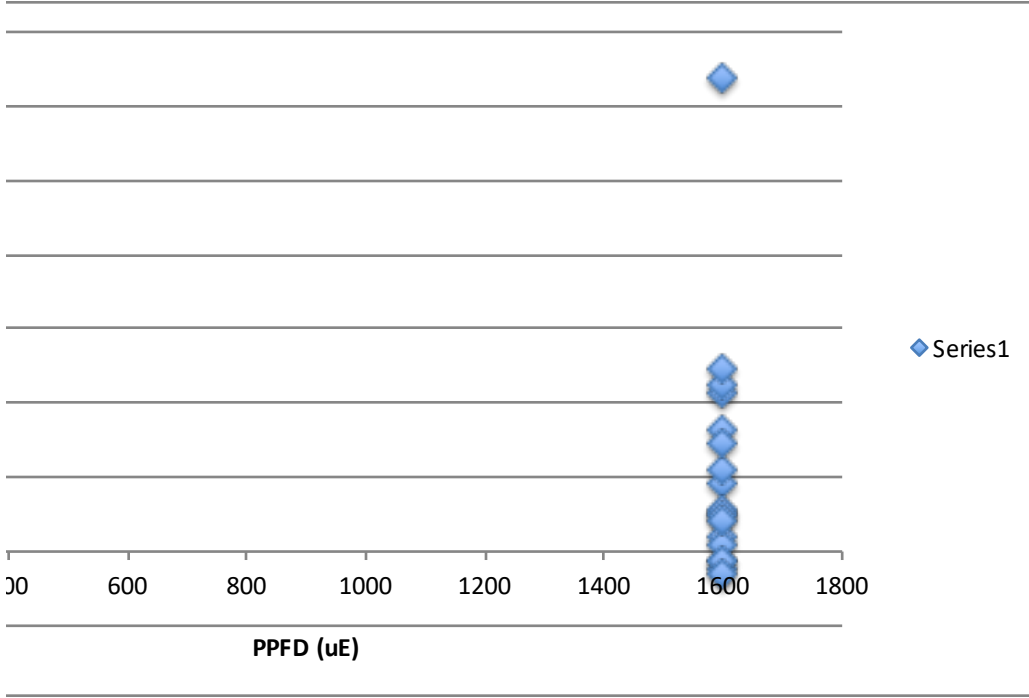
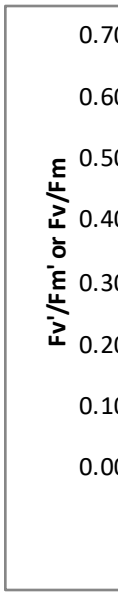
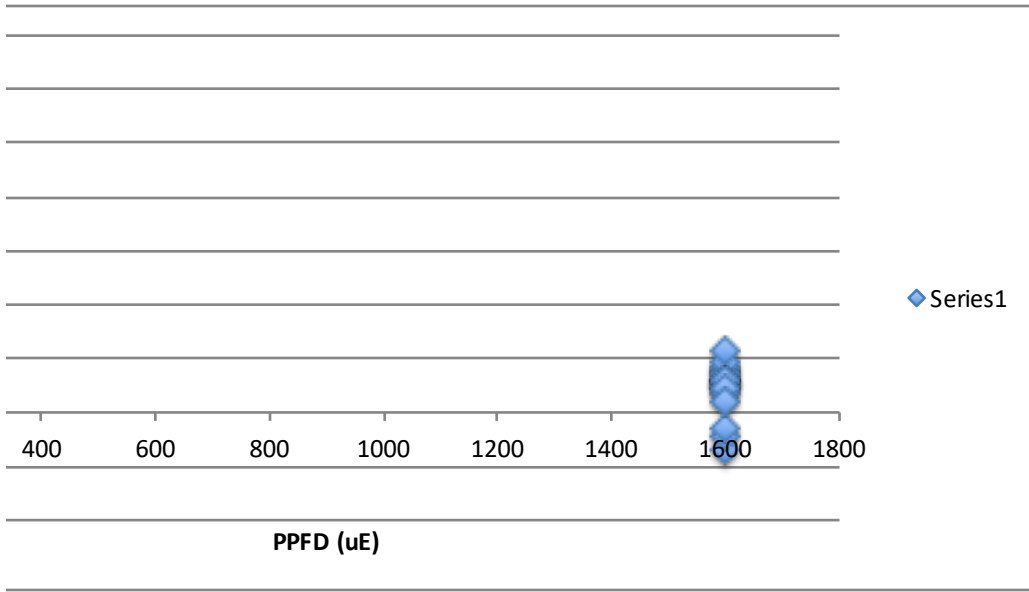
Tleaf	After Dark Pulse			After Dark adapting		calculated (Fm'-Fs)/Fm'
	Fv'	Fs	Fo'	Fm	Fo	
5.0	36	140.6	106.4	446.811	323.822	0.064
5.1						0.015
5.1	31	128.6	98.8	421.854	300.511	0.081
5.1						0.012
5.1	41	148.8	109.6	397.714	281.933	0.063
5.1						0.012
5.1	373	736.8	375.8	559.505	343.444	0.096
5.0						0.015
5.1	136	340	209.6	529.113	313.322	0.116
5.1						0.016
5.2	219	486.9	274.8	430.714	239.522	0.100
5.0						0.014
5.0	63	226.2	165.4	1689.68	605.578	0.055
5.0						0.011
5.2	118	422.1	312.2	818.775	421.433	0.096
5.2						0.019
5.2	95	328.5	241	1168.55	554.611	0.113
5.1						0.023
5.2	19	86.6	66.6	178.666	165.444	0.011
5.1						-0.014
5.1	27	110.9	83.4	172.118	169.356	0.007
5.1						-0.009
5.2	28	99.4	71	116.556	114.856	0.007
5.1						-0.006
5.2	67	284.3	220.2	702.223	397.744	0.079
5.1						0.011

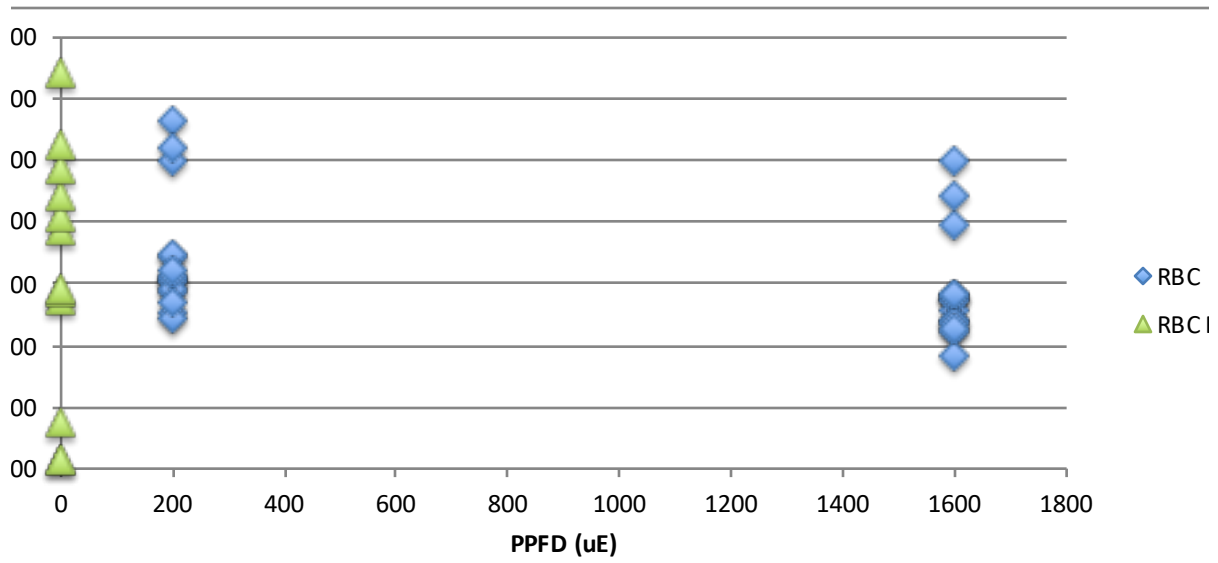
5.1	58	308.3	253.6	337.484	197.556	0.064
5.1						0.009
5.2	99	434.4	340.6	382.634	230.978	0.058
5.1						0.012
5.1	219	551.1	335.6	386.379	216.767	0.055
5.0						0.007
5.1	125	374.6	253.2	554.903	304.256	0.063
5.0						0.009
5.1	88	287.2	200.2	408.762	241.978	0.049
5.1						0.004

calculated Fv'/Fm'	calculated Fv/Fm	calculated NPQ	for plotting Fv/Fm
0.304	0.275	1.92	0
0.255		2.13	
0.286	0.288	2.05	0
0.241		2.24	
0.307	0.291	1.52	0
0.272		1.64	
0.563	0.386	-0.35	0
0.497		-0.25	
0.498	0.408	0.27	0
0.394		0.53	
0.523	0.444	-0.25	0
0.443		-0.13	
0.306	0.642	6.09	0
0.277		6.39	
0.342	0.485	0.73	0
0.274		0.90	
0.348	0.525	2.16	0
0.283		2.47	
0.253	0.074	1.00	0
0.220		1.09	
0.290	0.016	0.47	0
0.241		0.57	
0.313	0.015	0.13	0
0.281		0.18	
0.321	0.434	1.16	0
0.234		1.44	

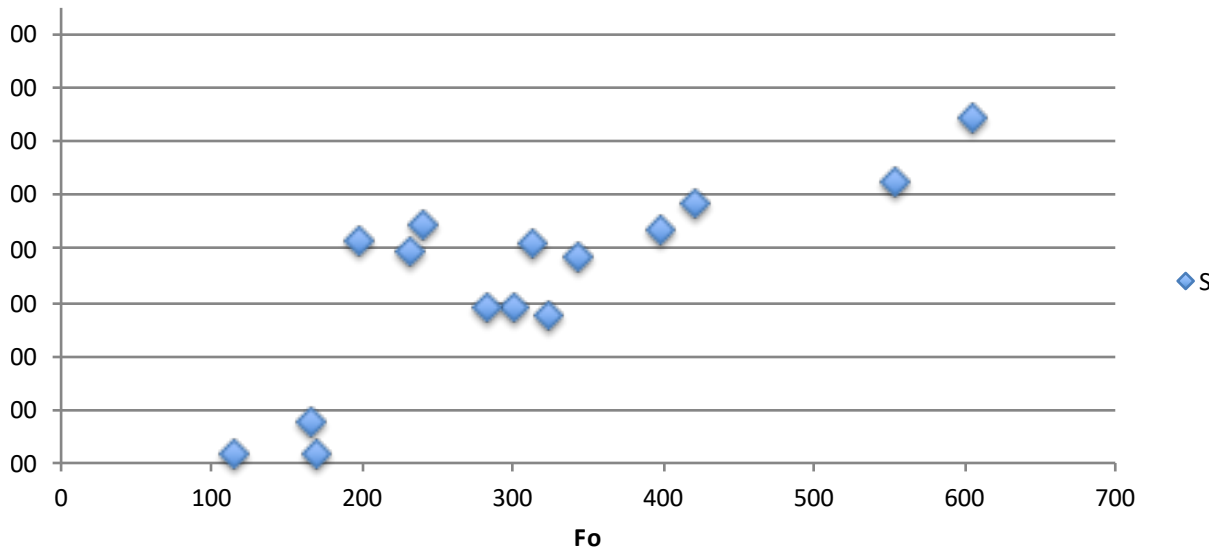


0.244	0.415	0.01	0
0.185		0.08	
0.268	0.396	-0.18	0
0.225		-0.13	
0.475	0.439	-0.40	0
0.395		-0.30	
0.410	0.452	0.29	0
0.330		0.47	
0.364	0.408	0.30	0
0.306		0.42	





dark adapted results - signal strength check



Fv/Fm

series1

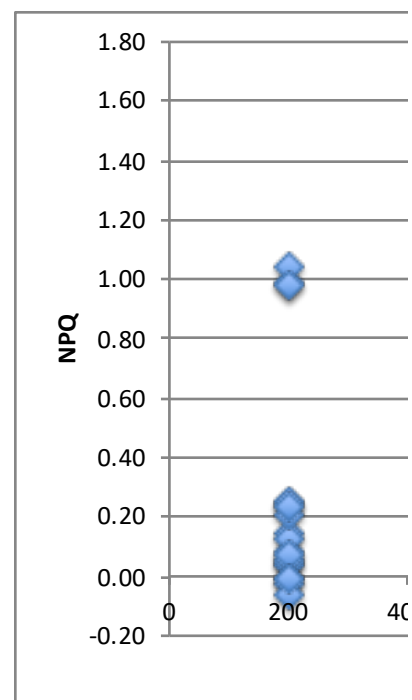
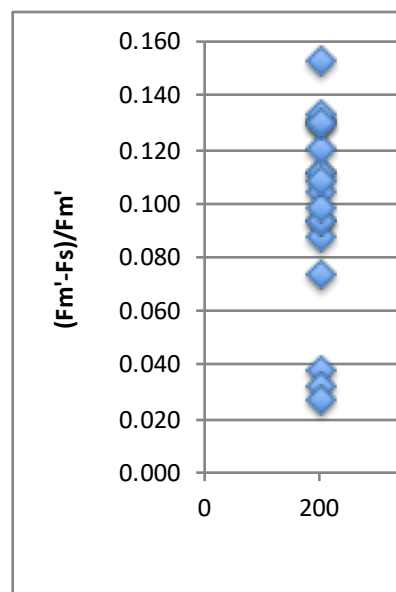
Date	Sample	Pulses in light			
		Pulse Time	Fm'	Fs	Qin
190226	190226 akgc B1 R1	1201	678	618.5	200
		1206	503.7	499.2	1600
190226	190226 akgc B1 R2	1215	661.9	600.2	200
		1220	516.6	511.5	1600
190226	190226 akgc B1 R3	1229	573.1	530.7	200
		1234	463	459.9	1600
190226	190226 pspe B1 R1	1245	515.4	467.4	200
		1250	452.2	448	1600
190226	190226 pspe B1 R2	1259	487	436.5	200
		1304	441.8	434.4	1600
190226	190226 pspe B1 R3	1312	496.3	441.2	200
		1317	445	438.8	1600
190226	190226 abpa B1 R1	1326	538.9	485.8	200
		1331	481.8	475.3	1600
190226	190226 abpa B1 R2	1339	607.8	540.4	200
		1344	544.1	535	1600
190226	190226 abpa B1 R3	1352	521	441.7	200
		1358	461.7	450.9	1600
190226	190226 scw B1 R1	1406	464.7	414.5	200
		1411	408.2	402.1	1600
190226	190226 scw B1 R2	1420	401.2	353.2	200
		1425	346.3	340.7	1600
190226	190226 scw B1 R3	1433	347.2	301.7	200
		1438	296.5	291.3	1600
190226	190226 psmf B1 R1	1446	497.8	433.8	200
		1451	415.6	407.6	1600

190226 190226 psmf B1 R2	1459	449.6	389.9	200
	1504	378.2	371.3	1600
190226 190226 psmf B1 R3	1512	417.6	363.5	200
	1517	360.4	353.8	1600
190226 190226 akgc B1 R1	1526	190.1	182.9	200
	1531	169.4	169.4	1600
190226 190226 akgc B1 R2	1541	236.4	228.8	200
	1546	221.3	220.3	1600
190226 190226 akgc B1 R3	1554	223.4	217.3	200
	1559	202.9	202.9	1600

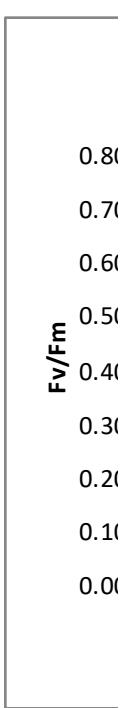
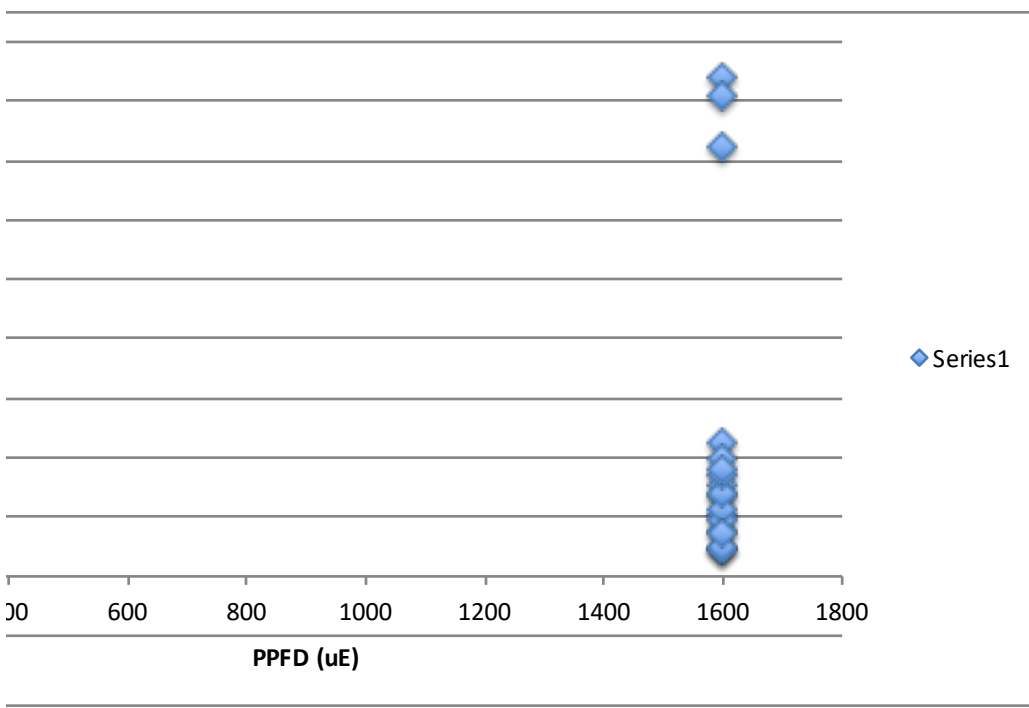
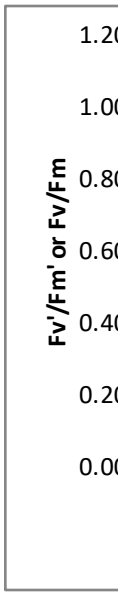
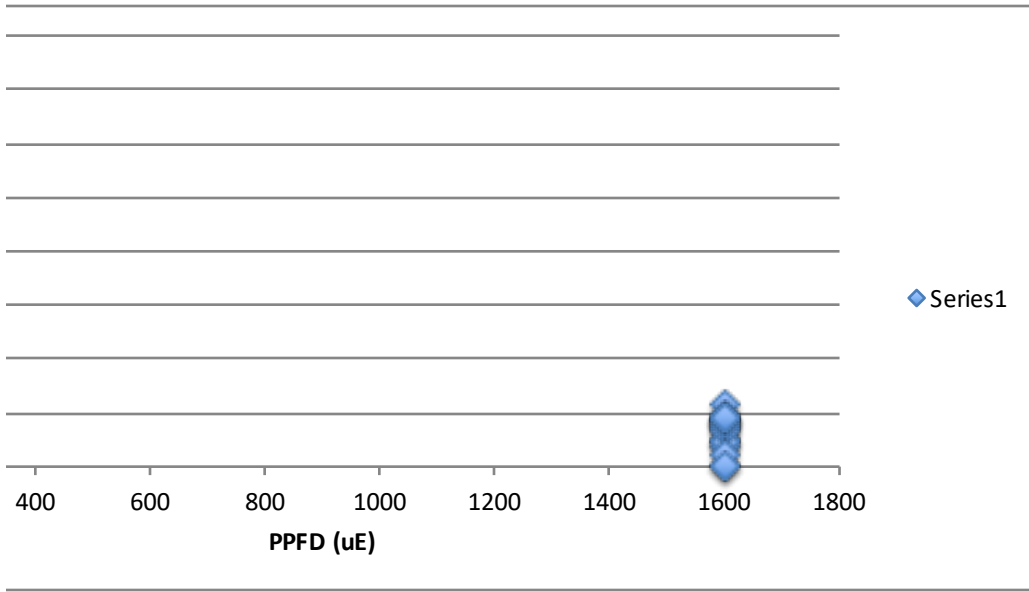
Tleaf	After Dark Pulse			After Dark adapting		calculated (Fm'-Fs)/Fm'
	Fv'	Fs	Fo'	Fm	Fo	
5.0	168	499.2	335.8	1347.53	520.167	0.088
5.1						0.009
5.1	196	511.5	321	1352.23	497.867	0.093
5.1						0.010
5.1	1132.51	483.089	5.11	1132.51	483.089	0.074
5.1						0.007
5.1	137	448	315.6	590.678	421.222	0.093
5.0						0.009
5.1	124	434.5	317.8	483.388	362.567	0.104
5.1						0.017
5.1	117	438.8	327.6	483.95	371.667	0.111
5.1						0.014
5.1	119	475.3	363	556.779	409.122	0.099
5.1						0.013
5.0	150	535	394	657.263	437.744	0.111
5.0						0.017
5.0	131	450.9	330.6	585.092	375.889	0.152
5.0						0.023
5.1	107	402.1	301.6	485.807	372.644	0.108
5.0						0.015
5.1	90	340.7	256.8	423.528	331.178	0.120
5.0						0.016
5.0	72	291.3	225	324.686	256.1	0.131
5.0						0.018
5.1	121	407.6	294.4	601.71	363.044	0.129
5.1						0.019

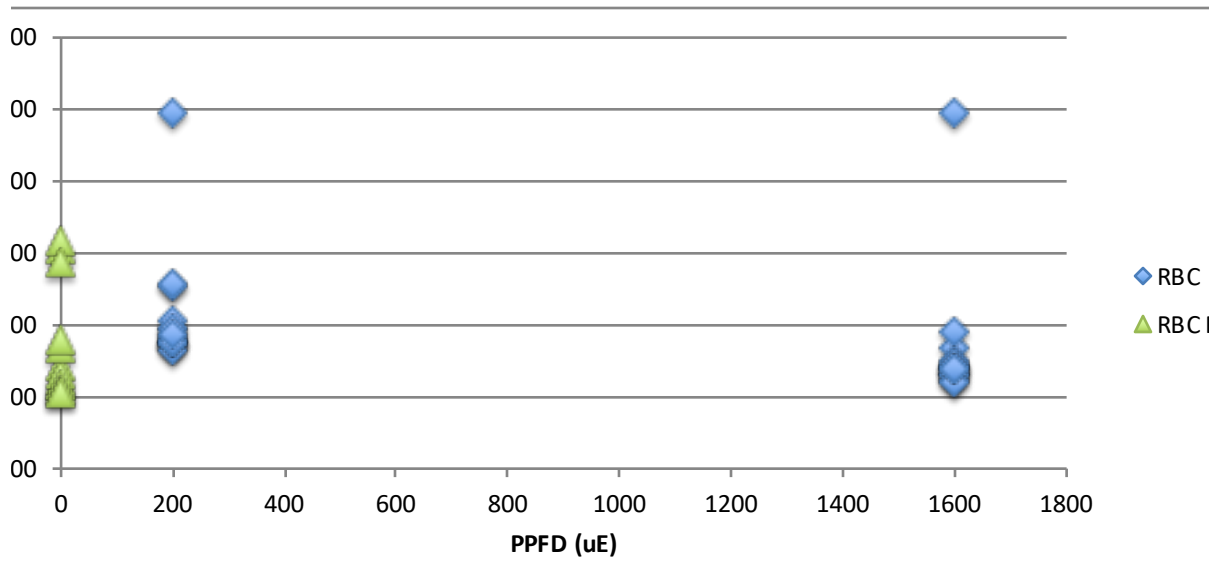
5.0	103	371.3	274.8	483.287	327.833	0.133
5.1						0.018
5.0	99	353.8	261.8	412.754	307.5	0.130
5.1						0.018
5.0	43	169.4	126.4	236.941	177.256	0.038
5.1						0.000
5.1	51	220.3	169.8	296.913	233.656	0.032
5.1						0.005
5.1	43	202.9	160	275.275	213.878	0.027
5.0						0.000

calculated Fv'/Fm'	calculated Fv/Fm	calculated NPQ	for plotting Fv/Fm
0.505	0.614	0.99	0
0.333		1.68	
0.515	0.632	1.04	0
0.379		1.62	
0.991	0.573	0.98	0
0.989		1.45	
0.388	0.287	0.15	0
0.302		0.31	
0.347	0.250	-0.01	0
0.281		0.09	
0.340	0.232	-0.02	0
0.264		0.09	
0.326	0.265	0.03	0
0.247		0.16	
0.352	0.334	0.08	0
0.276		0.21	
0.365	0.358	0.12	0
0.284		0.27	
0.351	0.233	0.05	0
0.261		0.19	
0.360	0.218	0.06	0
0.258		0.22	
0.352	0.211	-0.06	0
0.241		0.10	
0.409	0.397	0.21	0
0.292		0.45	

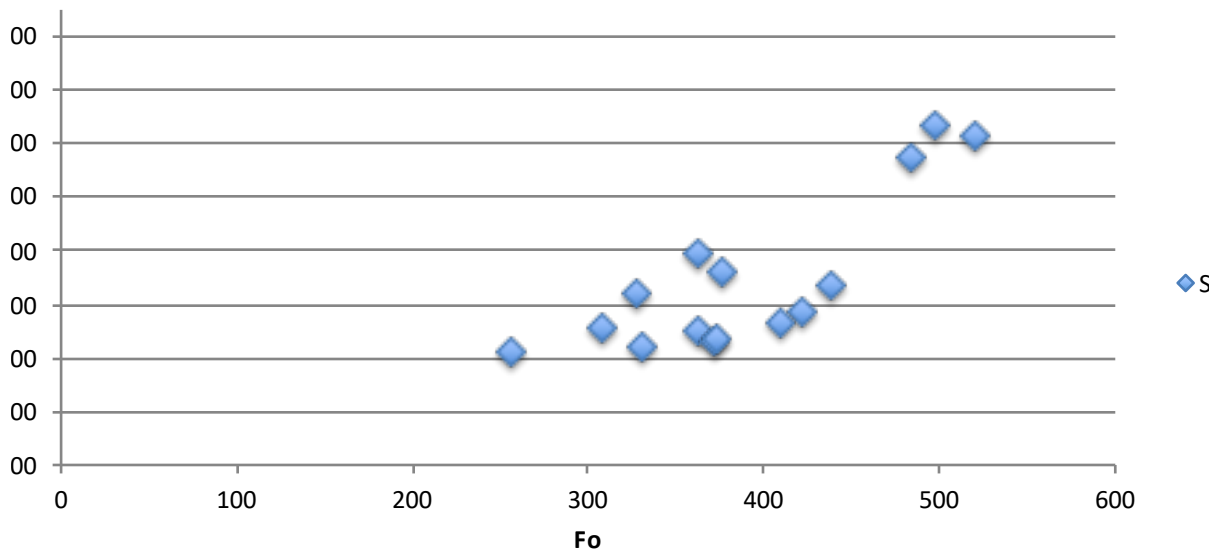


0.389	0.322	0.07	0
0.273		0.28	
0.373	0.255	-0.01	0
0.274		0.15	
0.335	0.252	0.25	0
0.254		0.40	
0.282	0.213	0.26	0
0.233		0.34	
0.284	0.223	0.23	0
0.211		0.36	





dark adapted results - signal strength check



Fv/Fm

series1

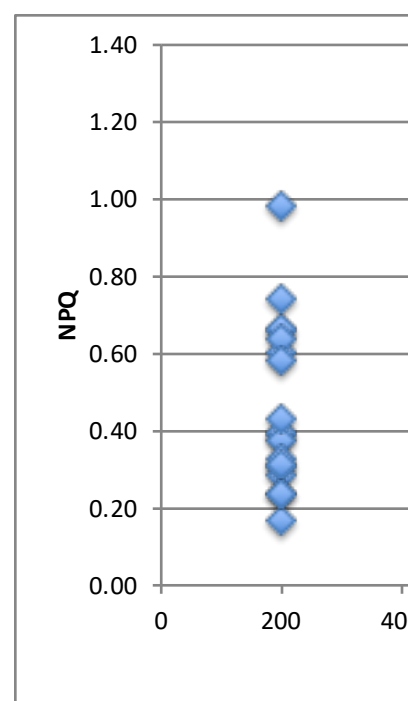
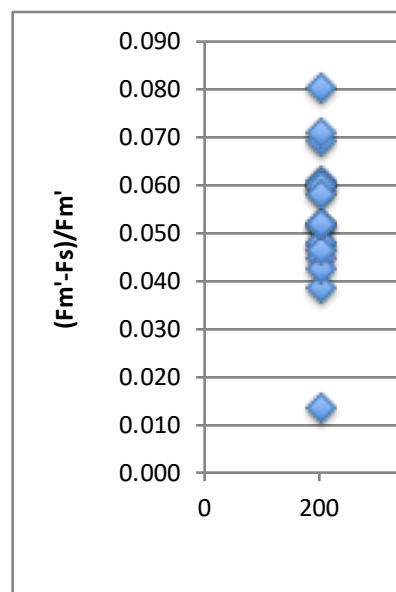
Date	Sample	Pulses in light			
		Pulse Time	Fm'	Fs	Qin
190227	190227 tabr B1 R1	1158	269.6	251	200
		1203	244	241.3	1600
190227	190227 tabr B1 R2	1212	471.5	433.6	200
		1217	419.8	416	1600
190227	190227 tabr B1 R3	1225	473.7	444.8	200
		1230	445.5	440.2	1600
190227	190227 cdss B1 R1	1239	425.7	400.3	200
		1244	360.9	358.9	1600
190227	190227 cdss B1 R2	1253	288.2	277.1	200
		1259	260.7	260	1600
190227	190227 cdss B1 R3	1307	327.9	312.4	200
		1312	287.2	285.5	1600
190227	190227 abam B1 R1	1321	430	404	200
		1326	373.1	368.4	1600
190227	190227 abam B1 R2	1335	568.8	561	200
		1340	536.3	532.7	1600
190227	190227 abam B1 R3	1348	341.1	323.5	200
		1353	306	303.2	1600
190227	190227 thpw B1 R1	1402	559.2	534.3	200
		1407	506.6	502.5	1600
190227	190227 thpw B1 R2	1416	382.5	364.2	200
		1421	338.8	336.6	1600
190227	190227 thpw B1 R3	1429	446.1	427.2	200
		1434	397.5	395.1	1600
190227	190227 pico B1 R1	1443	419.6	397.9	200
		1448	371.9	367.8	1600

190227 190227 pico B1 R2	1457	267.5	255.1	200
	1502	235.9	233.8	1600
190227 190227 pico B1 R3	1510	402.4	381.6	200
	1515	363.6	360.6	1600
190227 190227 piab B1 R1	1524	241	226.6	200
	1529	201.8	200.6	1600
190227 190227 piab B1 R2	1538	156.1	145	200
	1543	131.8	131.5	1600
190227 190227 piab B1 R3	1552	208.5	196.4	200
	1557	172.8	171.8	1600

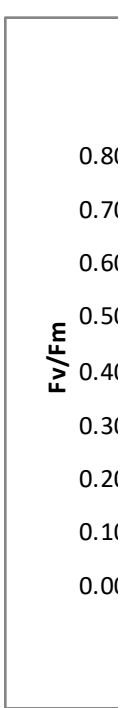
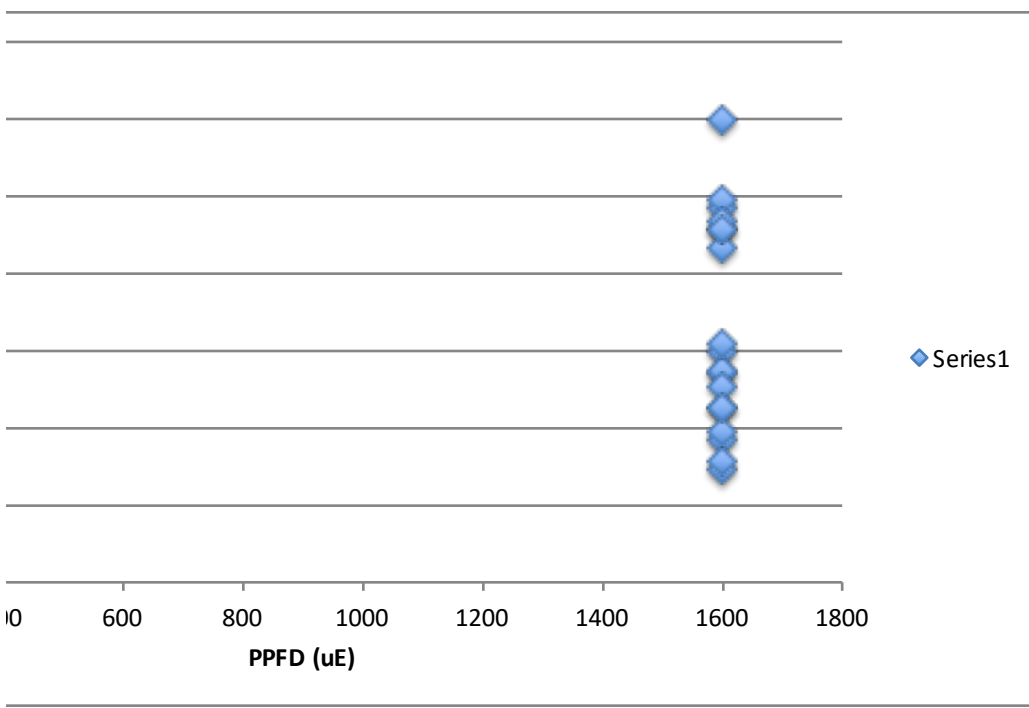
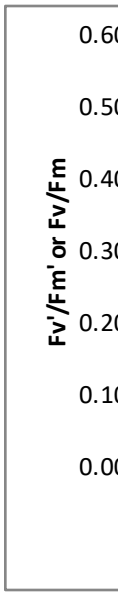
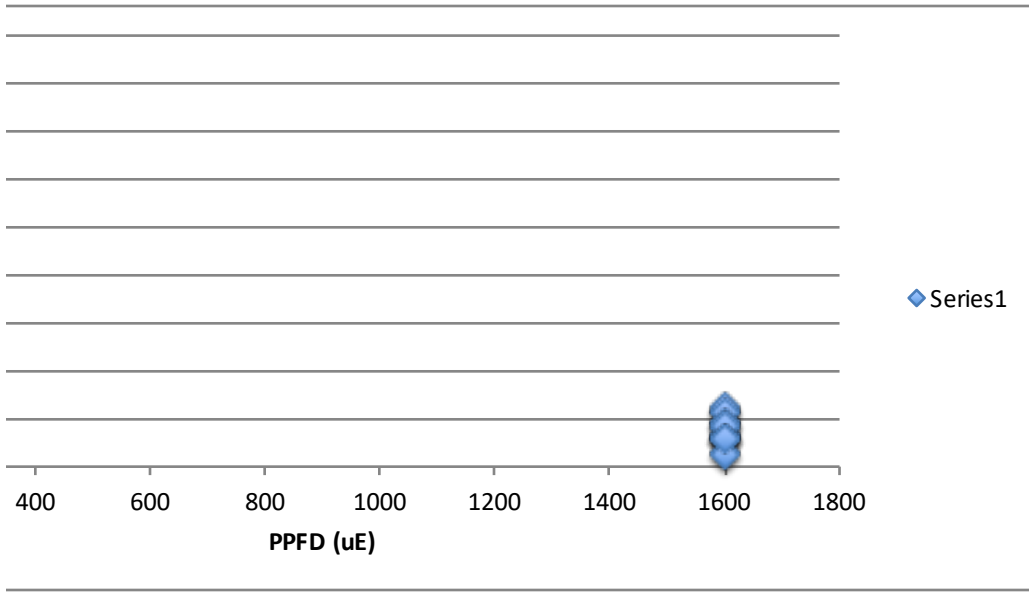
Tleaf	After Dark Pulse			After Dark adapting		calculated (Fm'-Fs)/Fm'
	Fv'	Fs	Fo'	Fm	Fo	
5.1	54	241.3	190.4	314.686	249.3	0.069
5.1						0.011
5.1	127	416	293.2	781.822	388.311	0.080
5.1						0.009
5.2	107	440.2	338.6	609.58	412.4	0.061
5.1						0.012
5.2	82	358.9	279.2	710.026	412.967	0.060
5.1						0.006
5.1	85	260	176.2	571.889	287.844	0.039
5.1						0.003
5.1	66	285.5	221	571.289	334.256	0.047
5.1						0.006
5.1	115	368.4	258.2	596.584	355.089	0.060
5.1						0.013
5.1	171	532.7	365.4	705.057	433.5	0.014
5.0						0.007
5.1	90	303.2	216.4	444.257	290.978	0.052
5.1						0.009
5.1	170	502.5	336.2	779.719	432.311	0.045
5.1						0.008
5.1	111	336.6	228	525.33	276.789	0.048
5.1						0.006
5.1	115	395.1	282.4	552.544	355.622	0.042
5.1						0.006
5.1	125	367.8	246.4	600.51	330.367	0.052
5.1						0.011

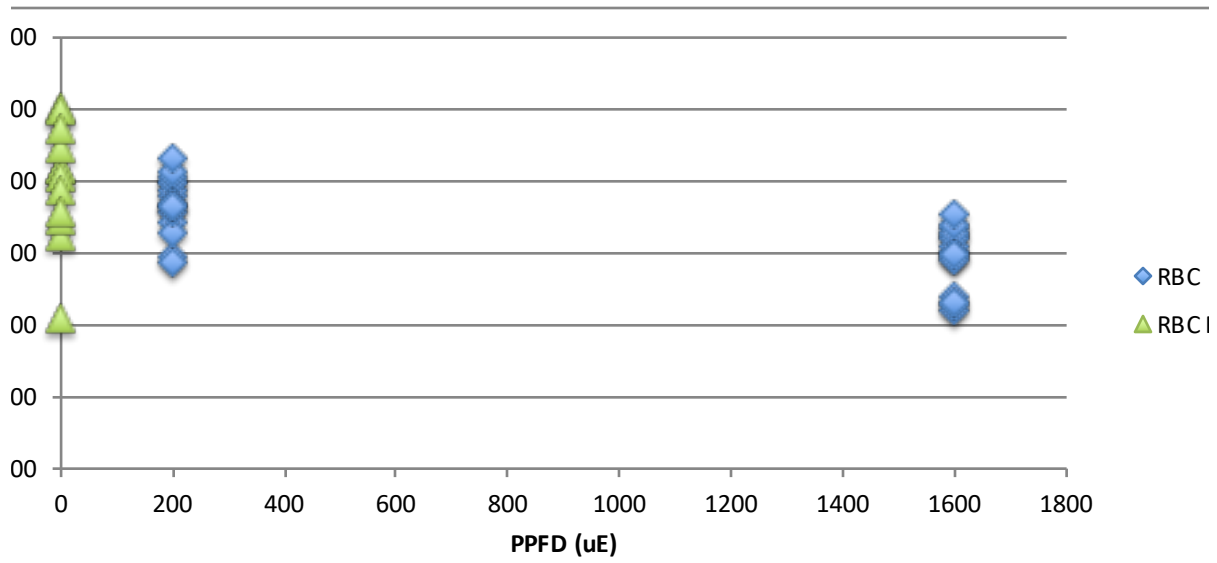
5.0	84	233.8	152.2	355.093	193.911	0.046
5.1						0.009
5.2	108	360.6	255.2	527.363	325.222	0.052
5.2						0.008
5.1	58	200.6	144.2	385.582	225.333	0.060
5.1						0.006
5.0	48	131.5	83.4	255.196	141.611	0.071
5.1						0.002
5.0	46	171.8	126.8	330.454	204.022	0.058
5.1						0.006

calculated Fv'/Fm'	calculated Fv/Fm	calculated NPQ	for plotting Fv/Fm
0.294	0.208	0.17	0
0.220		0.29	
0.378	0.503	0.66	0
0.302		0.86	
0.285	0.323	0.29	0
0.240		0.37	
0.344	0.418	0.67	0
0.226		0.97	
0.389	0.497	0.98	0
0.324		1.19	
0.326	0.415	0.74	0
0.231		0.99	
0.400	0.405	0.39	0
0.308		0.60	
0.358	0.385	0.24	0
0.319		0.31	
0.366	0.345	0.30	0
0.293		0.45	
0.399	0.446	0.39	0
0.336		0.54	
0.404	0.473	0.37	0
0.327		0.55	
0.367	0.356	0.24	0
0.290		0.39	
0.413	0.450	0.43	0
0.337		0.61	

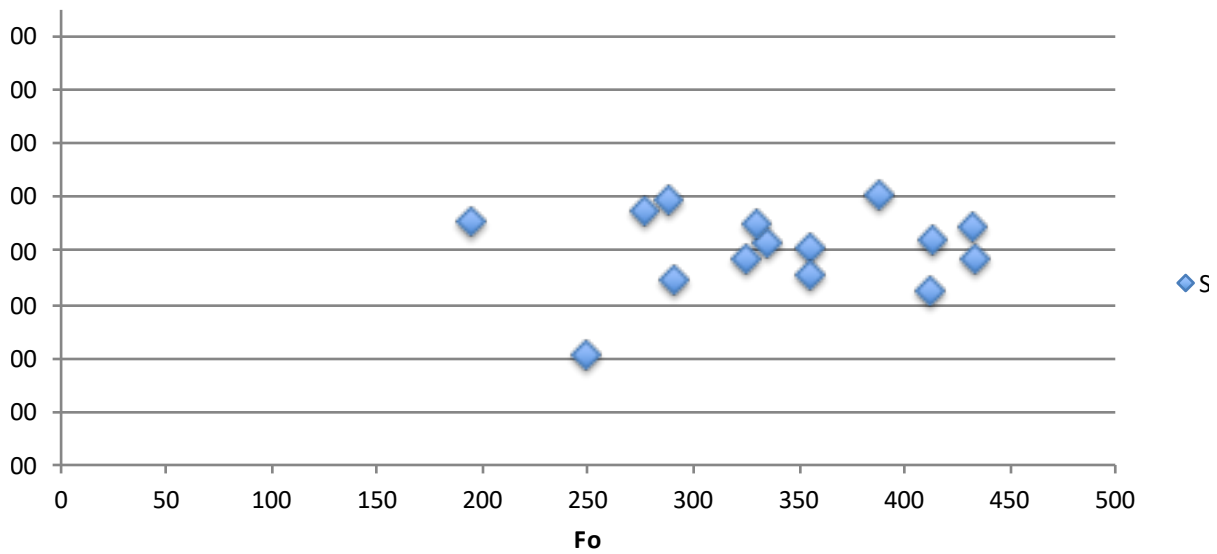


0.431	0.454	0.33	0
0.355		0.51	
0.366	0.383	0.31	0
0.298		0.45	
0.402	0.416	0.60	0
0.285		0.91	
0.466	0.445	0.63	0
0.367		0.94	
0.392	0.383	0.58	0
0.266		0.91	





dark adapted results - signal strength check



Fv/Fm

series1

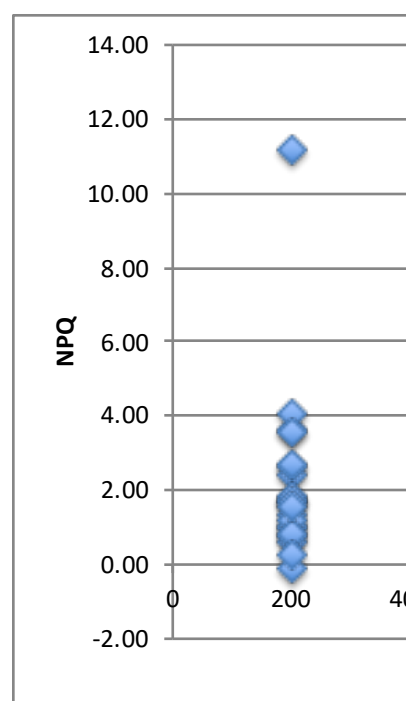
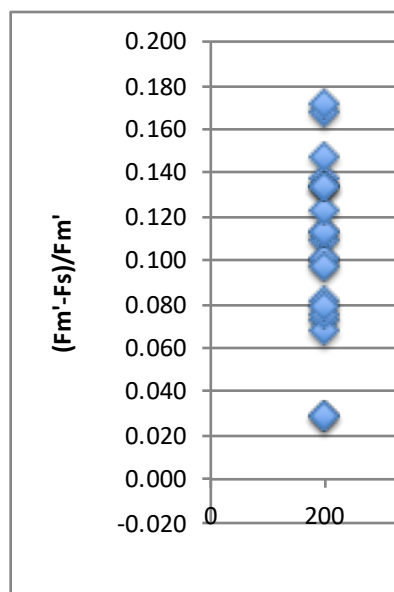
Date	Sample	Pulses in light			
		Pulse Time	Fm'	Fs	Qin
190301	190301 segi B1 R1	1157	549.6	509.9	200
		1202	498.1	492.2	1600
190301	190301 segi B1 R2	1214	355.6	316.8	200
		1219	327.1	321.1	1600
190301	190301 segi B1 R3	1227	507.2	466	200
		1232	457.7	451.9	1600
190301	190301 jscc B1 R1	1240	573.1	516	200
		1245	536.6	529.6	1600
190301	190301 jscc B1 R2	1253	417.8	360.4	200
		1258	365.8	360.4	1600
190301	190301 jscc B1 R3	1312	299.6	269.3	200
		1317	261.2	258.6	1600
190301	190301 pinh B1 R1	1325	312.3	277	200
		1330	259.5	255.1	1600
190301	190301 pinh B1 R2	1338	427.2	378.7	200
		1343	370.3	363.5	1600
190301	190301 pinh B1 R3	1351	236.1	207	200
		1356	200.1	197.5	1600
190301	190301 thob B1 R1	1404	398.6	345.3	200
		1409	311.3	307.3	1600
190301	190301 thob B1 R2	1417	746	620.9	200
		1422	585.1	573.7	1600
190301	190301 thob B1 R3	1432	1030.8	853.8	200
		1437	830	810.8	1600
190301	190301 thod B1 R1	1449	323.5	314.3	200
		1454	301.2	300.1	1600

190301 190301 thod B1 R2	1502	136.6	132.7	200
	1507	128.8	129.9	1600
190301 190301 thod B1 R3	1516	274.7	256.1	200
	1521	235.1	233.1	1600
190301 190301 piba B1 R1	1538	109.1	93	200
	1543	93.2	92.3	1600
190301 190301 piba B1 R2	1551	201.4	174.4	200
	1556	170.9	168.5	1600
190301 190301 piba B1 R3	1604	190.4	165	200
	1609	159.6	156.5	1600
190301 190301 abal B1 R1	1617	740.1	684.7	200
	1622	591	586.8	1600
190301 190301 abal B1 R2	1630	403.2	363.9	200
	1635	306	303.3	1600
190301 190301 abal B1 R3	1643	679.5	625.8	200
	1648	544.6	540.5	1600

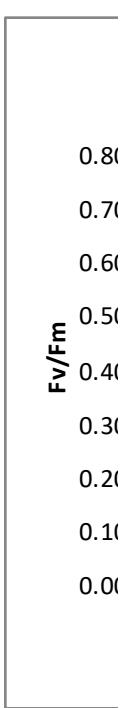
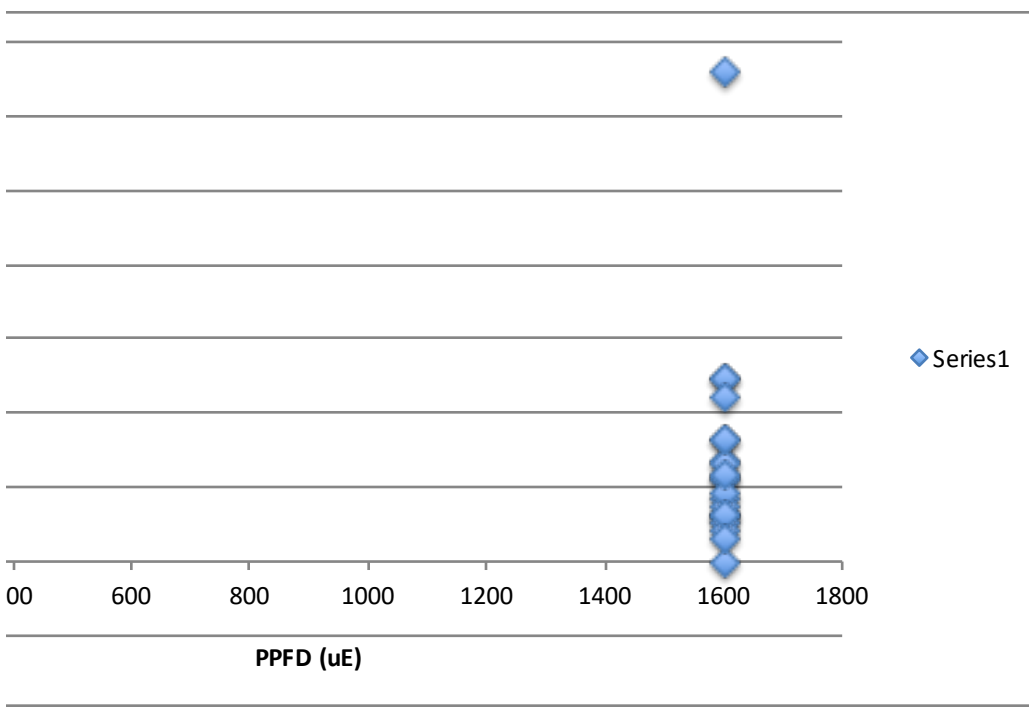
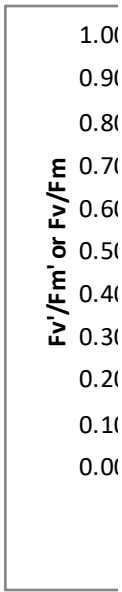
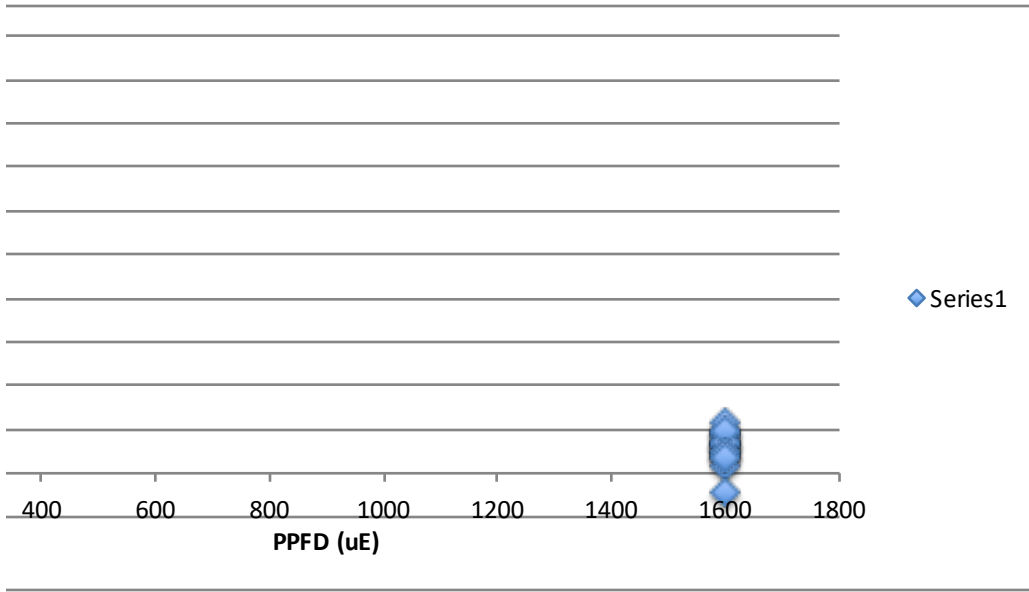
Tleaf	After Dark Pulse			After Dark adapting		calculated (Fm'-Fs)/Fm'
	Fv'	Fs	Fo'	Fm	Fo	
5.1	192	492.2	306.6	1087.44	471.789	0.072
5.4						0.012
5.1	119	321.1	208.4	1210.49	531.589	0.109
5.3						0.018
5.1	152	451.9	305.2	1036.28	489.889	0.081
5.5						0.013
5.4	213	529.6	324	519.829	208.967	0.100
5.6						0.013
5.1	139	360.4	227.2	975.46	419.956	0.137
5.6						0.015
5.2	95	258.6	166.6	825.492	348.911	0.101
5.9						0.010
5.3	92	255.1	167.2	840.618	371.844	0.113
6.0						0.017
5.2	92	363.5	167.2	925.531	436.811	0.114
6.6						0.018
5.1	82	197.5	118.6	852.174	429.311	0.123
6.4						0.013
5.7	154	307.3	157.8	1838.28	541.856	0.134
6.1						0.013
6.1	259	573.7	326.2	2100.87	623.144	0.168
6.1						0.019
5.2	356	810.8	473.6	1671.58	490.1	0.172
6.3						0.023
5.5	128	300.1	173	559.194	472.778	0.028
6.6						0.004

5.9	36	129.9	92.6	364.563	291.211	0.029
6.2						-0.009
5.7	115	233.1	119.8	1004.92	643.844	0.068
5.7						0.009
5.0	38	92.3	54.8	1324.06	594.489	0.148
6.5						0.010
5.2	55	168.5	115.8	1013.24	523.578	0.134
5.2						0.014
5.0	54	156.5	105.6	867.268	452.867	0.133
6.8						0.019
5.8	195	586.8	396.4	464.507	254.278	0.075
6.5						0.007
5.4	85	303.3	221.4	876.558	441.8	0.097
5.8						0.009
5.8	145	540.5	399.8	1137.47	538.256	0.079
6.1						0.008

calculated Fv'/Fm'	calculated Fv/Fm	calculated NPQ	for plotting Fv/Fm
0.442	0.566	0.98	0
0.384		1.18	
0.414	0.561	2.40	0
0.363		2.70	
0.398	0.527	1.04	0
0.333		1.26	
0.435	0.598	-0.09	0
0.396		-0.03	
0.456	0.569	1.33	0
0.379		1.67	
0.444	0.577	1.76	0
0.362		2.16	
0.465	0.558	1.69	0
0.356		2.24	
0.609	0.528	1.17	0
0.548		1.50	
0.498	0.496	2.61	0
0.407		3.26	
0.604	0.705	3.61	0
0.493		4.91	
0.563	0.703	1.82	0
0.442		2.59	
0.541	0.707	0.62	0
0.429		1.01	
0.465	0.155	0.73	0
0.426		0.86	



0.322	0.201	1.67	0
0.281		1.83	
0.564	0.359	2.66	0
0.490		3.27	
0.498	0.551	11.14	0
0.412		13.21	
0.425	0.483	4.03	0
0.322		4.93	
0.445	0.478	3.55	0
0.338		4.43	
0.926	0.453	0.79	0
0.907		1.24	
0.713	0.496	1.51	0
0.622		2.31	
0.845	0.527	0.28	0
0.806		0.59	



Fv/Fm

series1

taxon	Date	Sample	Pulses in light		Fs	Qin	
			Pulse Time	Fm'			
pisp	190208	190208 pisp B1 R1	1128	68.8	60.6	200	
			1133	61.3	60.8	1600	
	190208	190208 pisp B1 R2	1142	58.7	52.4	200	
			1147	53.2	52.9	1600	
	190208	190208 pisp B1 R3	1156	45.7	41.4	200	
			1201	42.1	42.4	1600	
ceag	190208	190208 ceag B1 R1	1216	247.7	231.2	200	
			1221	230.1	227.8	1600	
	190208	190208 ceag B1 R2	1230	287.1	253.6	200	
			1236	264.8	260.9	1600	
	190208	190208 ceag B1 R3	1245	287.8	259.6	200	
			1251	263.9	260.5	1600	
pizs	190208	190208 pizs B1 R1	1303	121.9	117.5	200	
			1308	108.8	109.2	1600	
	190208	190208 pizs B1 R2	1317	144.2	139.5	200	
			1323	128.8	128.9	1600	
	190208	190208 pizs B1 R3	1332	145.5	138.1	200	
			1337	134	133.1	1600	
pinp	190208	190208 pinp B1 R1	1347	53.8	51	200	
			1352	50.9	50.8	1600	
	190208	190208 pinp B1 R2	1401	55.6	53.3	200	
			1406	51.9	51.3	1600	
	190208	190208 pinp B1 R3	1415	64.9	62	200	
			1420	59.7	59.9	1600	
jsba	190208	190208 jsba B1 R1	1429	100.9	94	200	
			1434	92	91.6	1600	
	190208	190208 jsba B1 R2	1448	163	154.9	200	
			1453	156.7	156.7	1600	

	190208	190208 jsba B1 R3	1501	121.5	111.8	200
			1506	112.8	112.7	1600
plif	190209	190209 plif B1 R1	1005	71.9	62	200
			1010	58.1	57.6	1600
	190209	190209 plif B1 R2	1020	132.8	117.7	200
			1025	108.8	107.8	1600
	190209	190209 plif B1 R3	1035	78.4	70.6	200
			1040	72.5	71.9	1600
pasc	190209	190209 pasc B1 R1	1100	355.3	335	200
			1105	307.2	302.6	1600
	190209	190209 pasc B1 R2	1123	410.8	384.5	200
			1128	353.2	349.6	1600
	190209	190209 pasc B1 R3	1139	342.8	322	200
			1146	302	298.9	1600
sgvm	190209	190209 sgvm B1 R1	1209	319.1	291.8	200
			1214	248.8	246.5	1600
	190209	190209 sgvm B1 R2	1223	386.9	354.7	200
			1228	303.2	300.9	1600
	190209	190209 sgvm B1 R3	1239	331.3	291	200
			1244	243.8	239.1	1600
pije	190209	190209 pije B1 R1	1324	22.5	23	200
			1329	20.3	20.5	1600
	190209	190209 pije B1 R2	1338	22.6	23.2	200
			1343	20.9	20.8	1600
	190209	190209 pije B1 R3	1351	16.5	16.7	200
			1356	15.5	15.6	1600
pied	190209	190209 pied B1 R1	1411	239	216.2	200
			1416	193.7	191.5	1600
	190209	190209 pied B1 R2	1440	188.4	165.1	200
			1446	155.2	153.4	1600

	190209	190209 pied B1 R3	1458	738.3	665.1	200
			1504	593.5	583.9	1600
pipm	190209	190209 pipm B1 R1	1525	403.3	366.7	200
			1531	335.1	329.2	1600
	190209	190209 pipm B1 R2	1541	426.9	378.2	200
			1547	344.2	337.3	1600
	190209	190209 pipm B1 R3	1603	458.3	404.4	200
			1609	380.6	372.2	1600
piph	190210	190210 piph B1 R1	1204	147.6	140.8	200
			1210	135.7	136	1600
	190210	190210 piph B1 R2	1233	289	275.2	200
			1238	242.4	242.1	1600
	190210	190210 piph B1 R3	1248	322.8	300.1	200
			1253	284	281.3	1600
jcsG	190210	190210 jcsG B1 R1	1317	809	718	200
			1323	667.9	658.1	1600
	190210	190210 jcsG B1 R2	1333	659.9	576.4	200
			1338	541.6	532.5	1600
	190210	190210 jcsG B1 R3	1349	651.3	561.3	200
			1355	529.8	522.7	1600
ponc	190210	190210 ponc B1 R1	1415	306.3	284.7	200
			1421	253	250.9	1600
	190210	190210 ponc B1 R2	1433	328.8	308.6	200
			1438	288.7	287.1	1600
	190210	190210 ponc B1 R3	1447	343.1	320.1	200
			1452	295.9	294.4	1600
pist	190210	190210 pist B1 R1	1511	67.9	68.1	200
			1516	63.6	65	1600
	190210	190210 pist B1 R2	1527	66.2	65.3	200
			1533	61.4	62.4	1600

	190210	190210 pist B1 R3	1542	65	63.9	200
			1547	60.3	62	1600
choc	190210	190210 choc B1 R1	1601	1273.1	1222.8	200
			1606	1189.7	1183.1	1600
	190210	190210 choc B1 R2	1614	1618.6	1525.8	200
			1619	1413	1405.4	1600
	190210	190210 choc B1 R3	1627	1032.5	984	200
			1633	955.2	950.7	1600
cunj	190210	190210 cunj B1 R1	1653	138.6	134.4	200
			1658	133.2	133.3	1600
	190210	190210 cunj B1 R2	1706	291.4	279	200
			1711	263.1	260.7	1600
	190210	190210 cunj B1 R3	1719	324.8	308.9	200
			1724	290	286.9	1600
phvl	190211	190211 phvl B1 R1	1017	46.2	43.7	200
			1023	38.6	38.3	1600
	190211	190211 phvl B1 R2	1037	237.3	222	200
			1043	206.2	205	1600
	190211	190211 phvl B1 R3	1052	286.5	271.2	200
			1058	260	260	1600
akhs	190211	190211 akhs B1 R1	1112	328.9	306.8	200
			1117	303.8	301.5	1600
	190211	190211 akhs B1 R2	1127	205	188.9	200
			1132	200.2	197.8	1600
	190211	190211 akhs B1 R3	1141	222.6	204.9	200
			1146	219.3	216.3	1600
psgf	190211	190211 psgf B1 R1	1214	216.9	187.8	200
			1219	187.9	184.9	1600
	190211	190211 psgf B1 R2	1231	369.2	315.7	200
			1236	305.7	300	1600

	190211	190211	psgf B1 R3	1246	400.6	358.3	200
				1251	346.7	337.4	1600
pibu	190211	190211	pibu B1 R1	1304	306.5	295.7	200
				1309	293.1	291.7	1600
	190211	190211	pibu B1 R2	1323	387.2	367	200
				1328	361.2	359.8	1600
	190211	190211	pibu B1 R3	1338	424.9	405.1	200
				1343	389.3	387.2	1600
jusb	190211	190211	jusb B1 R1	1401	770.4	708.5	200
				1406	587.4	583.3	1600
	190211	190211	jusb B1 R2	1415	469.7	417.4	200
				1421	369.7	365.3	1600
	190211	190211	jusb B1 R3	1443	918.4	807	200
				1448	739.6	731.2	1600
pmup	190215	90215	pmup B1 R1	1026	193.5	183.5	200
				1031	156	154.9	1600
	190215	90215	pmup B1 R2	1042	411.8	373.9	200
				1047	340.9	333.5	1600
	190215	90215	pmup B1 R3	1100	518.4	496.5	200
				1105	416.8	409.8	1600
pipu	190215	190215	pipu B1 R1	1135	195.6	187.6	200
				1140	179.7	179.7	1600
	190215	190215	pipu B1 R2	1151	161.3	154.6	200
				1156	148.6	147.1	1600
	190215	190215	pipu B1 R3	1212	176.6	163.5	200
				1217	161.8	159.8	1600
jccm	190219	190219	jccm B1 R1	1158	263.1	246.8	200
				1203	251.5	249.5	1600
	190219	190219	jccm B1 R2	1213	290.6	270.2	200
				1218	270.2	265.9	1600

	190219	190219 jccm B1 R3	1228	244.5	231	200
			1233	232.1	229.6	1600
pars	190219	190219 pars B1 R1	1245	105	102.4	200
			1250	97.1	97.5	1600
	190219	190219 pars B1 R2	1300	138.6	133.4	200
			1305	126.8	126.6	1600
	190219	190219 pars B1 R3	1315	213.3	204.7	200
			1320	195.3	194	1600
pisf	190219	190219 pisf B1 R1	1331	205.3	194.3	200
			1336	182.4	181.2	1600
	190219	190219 pisf B1 R2	1346	288.7	273	200
			1351	255.2	253.8	1600
	190219	190219 pisf B1 R3	1402	231.3	221.4	200
			1407	219.7	218.9	1600
psme	190219	190219 psme B1 R1	1502	125.9	122.8	200
			1507	114.1	114.8	1600
	190219	190219 psme B1 R2	1518	80.2	79.6	200
			1523	78.1	78.2	1600
	190219	190219 psme B1 R3	1532	85.8	85.4	200
			1538	82.3	83.9	1600
sgpb	190219	190219 sgpb B1 R1	1548	305.8	287.9	200
			1553	274	271.6	1600
	190219	190219 sgpb B1 R2	1603	308.6	288.1	200
			1608	274.8	271.1	1600
	190219	190219 sgpb B1 R3	1617	187.1	176.5	200
			1622	174.2	172.4	1600
celi	190219	190219 celi B1 R1	1632	775.5	714.8	200
			1637	600.9	594.4	1600
	190219	190219 celi B1 R2	1645	1206.9	1137.4	200
			1650	877.2	872.4	1600

	190219	190219 celi B1 R3	1659	895.3	828.5	200
			1704	650.6	646	1600
cagp	190220	190220 cagp B1 R1	1212	606.5	535.9	200
			1217	442	435.8	1600
	190220	190220 cagp B1 R2	1225	512.7	452.4	200
			1230	409.2	403.4	1600
	190220	190220 cagp B1 R3	1238	502.5	443.3	200
			1243	416.7	411.3	1600
cunp	190220	190220 cunp B1 R1	1251	83.6	81.8	200
			1256	80.4	80.4	1600
	190220	190220 cunp B1 R2	1304	153.7	150.1	200
			1309	143.3	143.3	1600
	190220	190220 cunp B1 R3	1317	128.9	125.7	200
			1322	117.8	117.9	1600
jvgc	190220	190220 jvgc B1 R1	1330	602.4	568.7	200
			1335	520.4	519.5	1600
	190220	190220 jvgc B1 R2	1343	677.2	632.7	200
			1348	587.4	583.7	1600
	190220	190220 jvgc B1 R3	1357	357.7	332.6	200
			1402	306.5	304.5	1600
piog	190220	190220 piog B1 R1	1423	332	306.9	200
			1428	297.3	293.5	1600
	190220	190220 piog B1 R2	1437	241.1	212.6	200
			1442	209.9	206.5	1600
	190220	190220 piog B1 R3	1450	265.8	239.6	200
			1455	240.7	236.9	1600
ppsd	190220	190220 ppsd B1 R1	1503	144	139.1	200
			1508	132	131.9	1600
	190220	190220 ppsd B1 R2	1516	124.2	120.4	200
			1521	118	118.1	1600

	190220	190220 ppsd B1 R3	1529	88.8	84.1	200
			1534	85.2	84.4	1600
taca	190220	190220 taca B1 R1	1542	727.1	668.7	200
			1547	688	675.4	1600
	190220	190220 taca B1 R2	1555	426.3	381.9	200
			1600	384.4	375.4	1600
	190220	190220 taca B1 R3	1608	418.4	372.1	200
			1613	399.9	389.9	1600
piar	190221	190221 piar B1 R1	1126	424.9	401.4	200
			1131	336.5	334.3	1600
	190221	190221 piar B1 R2	1140	318.8	302.6	200
			1145	264.1	261.3	1600
	190221	190221 piar B1 R3	1153	294.4	273.3	200
			1158	243.6	239.9	1600
pini	190221	190221 pini B1 R1	1308	178.7	170	200
			1313	161.2	160.1	1600
	190221	190221 pini B1 R2	1324	212.6	205.2	200
			1329	197.9	197.2	1600
	190221	190221 pini B1 R3	1337	239.9	233.7	200
			1342	223.7	224.6	1600
cdcp	190221	190221 cdcp B1 R1	1350	884	857.6	200
			1355	757.8	756.2	1600
	190221	190221 cdcp B1 R2	1403	666	629.1	200
			1408	572.5	569.2	1600
	190221	190221 cdcp B1 R3	1416	783.1	743.1	200
			1421	637.8	634	1600
tamd	190221	190221 tamd B1 R1	1511	544	503.1	200
			1516	418.1	413.2	1600
	190221	190221 tamd B1 R2	1524	450.5	422.7	200
			1529	399.2	395.7	1600

	190221	190221 tamd B1 R3	1537	604	571.9	200
			1542	522	516.2	1600
jucu	190221	190221 jucu B1 R1	1552	458.8	433.9	200
			1557	375.7	371.4	1600
	190221	190221 jucu B1 R2	1605	279	261	200
			1610	245.2	240.7	1600
	190221	190221 jucu B1 R3	1618	371.5	338.2	200
			1623	339.4	333	1600
piisy	190221	190221 piisy B1 R1	1632	748.5	681.5	200
			1637	564.9	552.7	1600
	190221	190221 piisy B1 R2	1645	1252.3	1110.4	200
			1650	1001.1	982.6	1600
	190221	190221 piisy B1 R3	1658	898.7	791.6	200
			1703	718.7	703.7	1600
pmgg	190222	90222 pmgg B1 R1	1224	316.4	289.3	200
			1229	255.9	254	1600
	190222	90222 pmgg B1 R2	1237	236.1	212.5	200
			1242	189.7	188.1	1600
	190222	90222 pmgg B1 R3	1250	353.8	318.2	200
			1255	288.2	285.4	1600
pian	190222	190222 pian B1 R1	1312	499.5	466.6	200
			1317	428.7	425.3	1600
	190222	190222 pian B1 R2	1326	410.7	386.9	200
			1332	356.3	354	1600
	190222	190222 pian B1 R3	1341	430	397.6	200
			1346	366.2	363.1	1600
piap	190222	190222 piap B1 R1	1356	293.3	275.1	200
			1402	255.1	252.3	1600
	190222	190222 piap B1 R2	1411	347.9	324.8	200
			1416	291.5	288.5	1600

	190222	190222 piap B1 R3	1425	261.7	245	200
			1430	216.4	214.8	1600
pipp	190222	190222 pipp B1 R1	1438	353.7	307.7	200
			1443	288	282.4	1600
	190222	190222 pipp B1 R2	1452	271.8	235.4	200
			1457	231.5	224.9	1600
	190222	190222 pipp B1 R3	1505	399.3	345.6	200
			1511	339.2	330.5	1600
psgv	190222	190222 psgv B1 R1	1521	353.5	332.9	200
			1526	323.1	320.3	1600
	190222	190222 psgv B1 R2	1534	563.9	521.3	200
			1539	508.6	503.1	1600
	190222	190222 psgv B1 R3	1549	259	241.9	200
			1554	242.6	239.5	1600
cubp	190222	190222 cubp B1 R1	1603	219.3	200.6	200
			1608	187.7	186.2	1600
	190222	190222 cubp B1 R2	1616	267.4	247.2	200
			1621	238.8	236.7	1600
	190222	190222 cubp B1 R3	179.7	179.7	164	200
			162.3	162.3	161.5	1600
pipu	190223	190223 pipu B1 R1	1158	152.8	143	200
			1203	142.8	140.6	1600
	190223	190223 pipu B1 R2	1212	138.4	127.2	200
			1217	130.1	128.6	1600
	190223	190223 pipu B1 R3	1227	158.1	148.2	200
			1232	150.6	148.8	1600
jswb	190223	190223 jswb B1 R1	1240	860.5	778.2	200
			1245	747.8	736.8	1600
	190223	190223 jswb B1 R2	1253	417.8	369.5	200
			1258	345.7	340	1600

	190223	190223 jswb B1 R3	1307	575.5	517.8	200
			1312	493.8	486.9	1600
picc	190223	190223 picc B1 R1	1320	238.3	225.3	200
			1325	228.7	226.2	1600
	190223	190223 picc B1 R2	1333	474.4	428.8	200
			1338	430.1	422.1	1600
	190223	190223 picc B1 R3	1346	369.4	327.5	200
			1351	336.3	328.5	1600
piwa	190223	190223 piwa B1 R1	1359	89.2	88.2	200
			1404	85.4	86.6	1600
	190223	190223 piwa B1 R2	1414	117.4	116.6	200
			1419	109.9	110.9	1600
	190223	190223 piwa B1 R3	1427	103.3	102.6	200
			1432	98.8	99.4	1600
abco	190223	190223 abco B1 R1	1440	324.5	298.8	200
			1445	287.6	284.3	1600
	190223	190223 abco B1 R2	1453	335.6	314.2	200
			1458	311.1	308.3	1600
	190223	190223 abco B1 R3	1506	465	438	200
			1511	439.5	434.4	1600
cade	190223	190223 cade B1 R1	1519	639.7	604.5	200
			1524	554.8	551.1	1600
	190223	190223 cade B1 R2	1532	428.8	401.6	200
			1537	378	374.6	1600
	190223	190223 cade B1 R3	1545	314.7	299.4	200
			1550	288.4	287.2	1600
akgc	190226	190226 akgc B1 R1	1201	678	618.5	200
			1206	503.7	499.2	1600
	190226	190226 akgc B1 R2	1215	661.9	600.2	200
			1220	516.6	511.5	1600

	190226 190226 akgc B1 R3	1229	573.1	530.7	200
		1234	463	459.9	1600
pspe	190226 190226 pspe B1 R1	1245	515.4	467.4	200
		1250	452.2	448	1600
	190226 190226 pspe B1 R2	1259	487	436.5	200
		1304	441.8	434.4	1600
	190226 190226 pspe B1 R3	1312	496.3	441.2	200
		1317	445	438.8	1600
abpa	190226 190226 abpa B1 R1	1326	538.9	485.8	200
		1331	481.8	475.3	1600
	190226 190226 abpa B1 R2	1339	607.8	540.4	200
		1344	544.1	535	1600
	190226 190226 abpa B1 R3	1352	521	441.7	200
		1358	461.7	450.9	1600
scvw	190226 190226 scvw B1 R1	1406	464.7	414.5	200
		1411	408.2	402.1	1600
	190226 190226 scvw B1 R2	1420	401.2	353.2	200
		1425	346.3	340.7	1600
	190226 190226 scvw B1 R3	1433	347.2	301.7	200
		1438	296.5	291.3	1600
psmf	190226 190226 psmf B1 R1	1446	497.8	433.8	200
		1451	415.6	407.6	1600
	190226 190226 psmf B1 R2	1459	449.6	389.9	200
		1504	378.2	371.3	1600
	190226 190226 psmf B1 R3	1512	417.6	363.5	200
		1517	360.4	353.8	1600
akgc	190226 190226 akgc B1 R1	1526	190.1	182.9	200
		1531	169.4	169.4	1600
	190226 190226 akgc B1 R2	1541	236.4	228.8	200
		1546	221.3	220.3	1600

	190226	190226 akgc B1 R3	1554	223.4	217.3	200
			1559	202.9	202.9	1600
tabr	190227	190227 tabr B1 R1	1158	269.6	251	200
			1203	244	241.3	1600
	190227	190227 tabr B1 R2	1212	471.5	433.6	200
			1217	419.8	416	1600
	190227	190227 tabr B1 R3	1225	473.7	444.8	200
			1230	445.5	440.2	1600
cdss	190227	190227 cdss B1 R1	1239	425.7	400.3	200
			1244	360.9	358.9	1600
	190227	190227 cdss B1 R2	1253	288.2	277.1	200
			1259	260.7	260	1600
	190227	190227 cdss B1 R3	1307	327.9	312.4	200
			1312	287.2	285.5	1600
abam	190227	90227 abam B1 R1	1321	430	404	200
			1326	373.1	368.4	1600
	190227	90227 abam B1 R2	1335	568.8	561	200
			1340	536.3	532.7	1600
	190227	90227 abam B1 R3	1348	341.1	323.5	200
			1353	306	303.2	1600
thpw	190227	190227 thpw B1 R1	1402	559.2	534.3	200
			1407	506.6	502.5	1600
	190227	190227 thpw B1 R2	1416	382.5	364.2	200
			1421	338.8	336.6	1600
	190227	190227 thpw B1 R3	1429	446.1	427.2	200
			1434	397.5	395.1	1600
pico	190227	190227 pico B1 R1	1443	419.6	397.9	200
			1448	371.9	367.8	1600
	190227	190227 pico B1 R2	1457	267.5	255.1	200
			1502	235.9	233.8	1600

	190227	190227	pico B1 R3	1510	402.4	381.6	200
				1515	363.6	360.6	1600
piab	190227	190227	piab B1 R1	1524	241	226.6	200
				1529	201.8	200.6	1600
	190227	190227	piab B1 R2	1538	156.1	145	200
				1543	131.8	131.5	1600
	190227	190227	piab B1 R3	1552	208.5	196.4	200
				1557	172.8	171.8	1600
segi	190301	190301	segi B1 R1	1157	549.6	509.9	200
				1202	498.1	492.2	1600
	190301	190301	segi B1 R2	1214	355.6	316.8	200
				1219	327.1	321.1	1600
	190301	190301	segi B1 R3	1227	507.2	466	200
				1232	457.7	451.9	1600
jssc	190301	190301	jssc B1 R1	1240	573.1	516	200
				1245	536.6	529.6	1600
	190301	190301	jssc B1 R2	1253	417.8	360.4	200
				1258	365.8	360.4	1600
	190301	190301	jssc B1 R3	1312	299.6	269.3	200
				1317	261.2	258.6	1600
pinh	190301	190301	pinh B1 R1	1325	312.3	277	200
				1330	259.5	255.1	1600
	190301	190301	pinh B1 R2	1338	427.2	378.7	200
				1343	370.3	363.5	1600
	190301	190301	pinh B1 R3	1351	236.1	207	200
				1356	200.1	197.5	1600
thob	190301	190301	thob B1 R1	1404	398.6	345.3	200
				1409	311.3	307.3	1600
	190301	190301	thob B1 R2	1417	746	620.9	200
				1422	585.1	573.7	1600

	190301 190301 thob B1 R3	1432	1030.8	853.8	200
		1437	830	810.8	1600
thod	190301 190301 thod B1 R1	1449	323.5	314.3	200
		1454	301.2	300.1	1600
	190301 190301 thod B1 R2	1502	136.6	132.7	200
		1507	128.8	129.9	1600
	190301 190301 thod B1 R3	1516	274.7	256.1	200
		1521	235.1	233.1	1600
piba	190301 190301 piba B1 R1	1538	109.1	93	200
		1543	93.2	92.3	1600
	190301 190301 piba B1 R2	1551	201.4	174.4	200
		1556	170.9	168.5	1600
	190301 190301 piba B1 R3	1604	190.4	165	200
		1609	159.6	156.5	1600
abal	190301 190301 abal B1 R1	1617	740.1	684.7	200
		1622	591	586.8	1600
	190301 190301 abal B1 R2	1630	403.2	363.9	200
		1635	306	303.3	1600
	190301 190301 abal B1 R3	1643	679.5	625.8	200
		1648	544.6	540.5	1600

Tleaf	After Dark Pulse		Fo'	After Dark adapting		Fv/Fm
	Fv'	Fs		Fm	Fo	
4.97 4.83	25	60.8	36	118.228	63.5778	0.46224414
5.5 5.7	31	52.9	22.4	93.784	53.9889	0.42432718
4.95 5.08	27	42.4	15	81.0128	47.5111	0.41353589
6.86 7.92	47	227.8	183.2	442.325	230.722	0.47838806
9.04 5.2	59	260.9	205.4	739.41	311.789	0.57832732
4.89 4.88	57	260.5	206.6	561.488	261.867	0.5336196
4.68 4.95	43	109.2	66	97.16	43.1778	0.55560107
4.93 5.04	45	128.9	84.2	113.866	74.4778	0.34591713
5..28 5.68	56	133.1	78.2	102.546	61.7444	0.39788583
4.92 5.02	27	50.8	24.2	154.34	62.6889	0.59382597
4.63 5.14	27	51.3	24.6	183.459	84.2222	0.54092086
5.02 6.01	30	59.9	29.2	161.858	94.9222	0.41354644
5.12 5.59	32	91.6	60.4	283.886	176.322	0.37889857
4.95 5	45	156.7	111.6	164.726	117.167	0.28871581

4.92 5.02	37	112.7	75.6	406.501	230.767	0.4323089
5.02 5	30	57.6	28.2	192.723	107.3	0.44324237
5.04 5.54	57	107.8	52.2	350.797	177.756	0.49327959
5.07 6.73	38	71.9	34.2	630.012	323.311	0.48681771
6.42 7.9	82	302.6	225.2	165.526	120.711	0.27074296
5.04 5.4	105	349.6	247.8	682.22	347.578	0.49051919
5.16 6.63	80	298.9	222.4	345.91	210.756	0.39072013
5.27 7.15	109	246.5	140.2	1604.74	427.722	0.73346336
5.08 6.05	145	300.9	157.8	692.123	269.289	0.6109232
6.15 8.08	112	239.1	131.8	530.078	228.489	0.56895212
5.81 7.01	17	20.5	3.4	63.8184	52.9667	0.1700403
5.25 6.54	15	20.8	5.6	54.5768	52.3333	0.04110721
5.93 7.22	13	15.6	2.4	59.0288	54.6333	0.07446365
5.96 7.95	70	191.5	123.6	2225	678.922	0.69486652
5.8 7.69	62	153.4	92.8	1898.73	556.133	0.70710264

5.63 7.09	226	583.9	368	1666.21	541.311	0.67512438
5.97 7.3	94	329.2	241.2	677.559	301.2	0.55546307
5.03 5.52	97	337.3	247.2	1162.13	462.844	0.60172786
6.36 7.61	98	372.2	282.6	946.304	389.4	0.58850433
6.04 7.24	51	136	84.2	621.165	392.722	0.36776541
5.38 6.47	65	242.1	177.8	638.995	398.367	0.37657259
5.3 5.92	79	281.3	204.8	296.619	198.222	0.33172858
5.92 7.49	262	658.1	406	1027.14	256.267	0.75050431
6.54 8.8	233	532.5	308.2	875.176	243.289	0.72201134
7.77 8.93	242	522.7	288	861.88	212.5	0.75344596
5.44 7.05	98	250.9	154.6	814.82	376.233	0.53826244
4.98 5.32	97	287.1	192	795.427	378.778	0.52380545
5.17 6.8	105	294.4	190.8	1319.82	576.111	0.56349275
6.33 7.94	24	65	39.8	192.012	150.467	0.21636669
5.57 6.55	23	62.4	38.4	356.604	251.4	0.29501632

5.43 7.36	33	62	27.6	367.28	264.889	0.27878186
6.2 7.71	595	1183.1	594.8	4759.6	895.667	0.81181885
7.12 8.22	794	1405.4	619	3446.71	922.378	0.73238886
6.82 7.9	530	950.7	425.6	3105.16	949.622	0.69417937
5.69 7.52	41	133.3	92	261.661	180.956	0.30843343
6.27 7.47	87	260.7	176.4	125.921	96.8	0.23126405
6.99 8.65	94	286.9	196	147.174	112.033	0.23877179
4.95 5.02	34	38.3	2.4	351.02	207.4	0.40915048
5.1 5.12	65	205.4	141.4	798.162	407.689	0.48921522
5.21 5.11	79	260	181.4	561.982	323.522	0.42431964
5.12 5.03	123	301.5	181	213.994	141.389	0.33928521
5.14 5.17	74	197.8	126.2	230.158	150.833	0.34465454
5.51 7.21	83	216.5	136.4	228.932	151.156	0.33973407
5.14 5.23	54	184.9	133.8	231.138	159.467	0.31007883
5.22 5.31	80	300	225.8	505.315	292.778	0.42060299

5.02 5.72	101	337.4	245.8	458.394	301.544	0.34217289
5.08 5.3	65	291.7	228.2	358.039	283.433	0.20837395
5.04 5.58	85	359.8	276.2	543.682	369.933	0.31957836
5.31 6.5	96	387.2	293.4	581.614	403.1	0.30692865
5.46 7.18	334	583.3	253.2	1490.97	346.056	0.76789875
7.48 9.24	179	365.3	190.2	1125.26	239.511	0.78715053
6.42 7.11	385	731.2	354.6	1852.36	397.878	0.78520482
5.63 7.8	71	154.9	85.2	745.642	329.356	0.55829205
7.13 9.41	122	333.5	218.8	724.658	318.822	0.56003798
7.15 8.71	177	409.8	240	354.901	171.233	0.51751897
5.63 7.3	58	179.7	121.6	240.954	167.489	0.30489222
5.1 7.5	47	147.1	101.2	191.598	138.7	0.27608848
5.7 5.7	53	159.8	109	241.261	160.256	0.33575671
5.1 5.1	61	249.5	190.4	663.773	379.122	0.42883787
5.1 5.0	72	265.9	198.4	307.01	215.822	0.29701964

5.1 5.0	54	229.6	178.6	255.41	194.3	0.23926236
5.2 5.2	24	97.5	72.8	117.039	91.0444	0.22210203
5.2 5.2	39	126.6	87.4	148.65	109	0.26673394
5.21 5.1	52	194	143.4	236.468	170.544	0.27878614
5.2 5.1	54	181.2	128.8	223.874	161.333	0.27935803
5.23 5.3	68	253.8	186.8	316.158	227.844	0.27933502
5.16 5.1	59	218.9	161	341.484	236.556	0.30727062
5.22 24 5.2		114.8	89.6	135.862	118.856	0.12517113
5.19 5.1	24	78.2	54.4	91.2256	77.5889	0.14948326
5.19 5.2	14	82.9	68.6	90.6144	81.2444	0.1034052
5.03 5.1	100	271.6	173.6	335.068	205.544	0.38656034
5.06 5.1	99	271.1	175.4	335.194	205.922	0.38566323
5.1 5.0	58	172.4	116	198.213	144.411	0.27143527
5.1 5.1	256	594.4	345.2	1429.34	444.378	0.68910266
5.04 5.1	397	872.4	479.8	2049.5	605.5	0.70456209

5.1 5.1	297	646	354	1693.27	586.922	0.65337956
5 5.0	139	435.8	303	756.371	280.056	0.62973726
5.21 4.9	139	403.4	270	1141.2	395.011	0.65386348
5.1 5.1	133	411.3	284	1042.32	392.922	0.62303131
5.11 5.1	24	80.4	56.2	75.2304	62.9778	0.16286767
5.24 5.03	43	143.3	100.2	135.248	110.389	0.18380309
5.02 5.07	47	117.9	70.4	250.189	195.078	0.22027747
5.04 5.01	265	519.5	255.6	600.561	267.167	0.55513761
5.1 5.08	281	583.7	306.2	1275.16	533.056	0.58196932
5.11 5.07	155	304.5	151.8	1320.74	490.456	0.6286506
5.04 5.05	62	293.5	234.8	277.838	129.533	0.53378228
5.07 5.04	61	206.5	149.2	523.999	256.389	0.51070708
5.04 5.04	63	236.9	177.8	236.782	107.822	0.54463599
5.03 5.04	28	131.9	103.6	168.885	128.244	0.24064304
5.1 5	32	118.1	86	273.437	191.522	0.2995754

5.05 5.05	24	84.4	61.2	163.346	113.678	0.30406622
5.05 5.05	298	675.4	390.4	926.986	406.633	0.56133857
5 4.96	160	375	224.4	1487.37	578.644	0.61096163
5.05 5.05	146	389.9	253.8	1205.36	515.122	0.57264054
5.14 5.16	110	334.3	226.8	426.662	221.411	0.48106229
5.1 5.11	92	261.3	172.4	422.139	233.311	0.44731238
5.1 5.1	76	239.9	167.6	438.27	240.6	0.45102334
5.11 5.12	44	160.1	116.8	192.454	147.511	0.23352593
5.16 5.17	49	197.2	148.4	226.821	181.278	0.20078829
5.19 5.11	49	224.6	174.4	253.939	220.144	0.13308314
5.11 5.02	177	756.2	580.4	1133.15	790.256	0.30260248
5.24 5.2	153	569.2	419.2	927.885	547.9	0.40951734
5.16 5.15	167	634	471	1019.56	643.678	0.3686708
5.03 5.08	134	413.2	284.4	652.722	368.933	0.43477775
5.03 5.04	123	395.7	276.4	519.254	337.633	0.34977294

5.11 5.18	166	516.2	355.8	702.714	445.567	0.36593408
5.13 5.03	142	371.4	233.8	545.101	304.644	0.44112376
5.06 5.05	62	240.7	183.2	342.238	238.411	0.3033766
5.02 5.03	92	333	247.4	527.254	345.044	0.34558296
5.16 5.12	210	552.7	354.8	958.861	451.444	0.52918723
5.22 5.24	408	982.6	592.8	2323.28	769.033	0.66898824
5.25 5.28	255	703.7	463.4	1345.36	575.911	0.57192796
5.12 5.18	52	254	204.2	588.509	341.989	0.41888909
5.1 5.1	50	188.1	139.8	827.478	437.044	0.47183611
5.14 5.07	72	285.4	216.6	665.907	379.367	0.43030033
5.07 5.03	125	425.3	304	845.238	311.889	0.63100452
4.97 5.05	92	354	264.8	648.283	269.511	0.58426952
5.04 5.07	102	363.1	264.2	563.91	309.933	0.4503857
5.2 5.1	69	252.3	186	319.099	187.944	0.41101664
5.0 5.1	78	288.5	213.6	653.291	289.733	0.55650239

5.1 5.1	65	214.8	151	510.114	250.811	0.50832363
5.2 5.1	90	282.4	197.6	679.759	306.967	0.5484179
5.1 5.0	86	224.9	145.2	519.47	235.578	0.54650317
5.1 5.1	105	330.5	234.6	688.285	314.233	0.54345511
5.09 5.1	100	320.3	223.2	540.3	323.722	0.40084768
5.1 5.1	148	503.1	360.2	455.87	343.011	0.24756839
5.13 5.1	82	239.5	161	287.582	227.011	0.21062167
5.04 4.0	71	186.2	117	377.36	152.378	0.59619992
5.05 5.1	91	236.7	147.4	216.361	121.689	0.437565
5.1 5.1	56	161.5	106.6	524.649	206.589	0.60623388
5.04 36 5.1		140.6	106.4	446.811	323.822	0.27525956
5.11 5.1	31	128.6	98.8	421.854	300.511	0.28764217
5.11 5.1	41	148.8	109.6	397.714	281.933	0.29111623
5.12 5.0	373	736.8	375.8	559.505	343.444	0.38616456
5.05 5.1	136	340	209.6	529.113	313.322	0.40783538

5.16 5.0	219	486.9	274.8	430.714	239.522	0.44389549
5.0 5.0	63	226.2	165.4	1689.68	605.578	0.64160196
5.15 5.2	118	422.1	312.2	818.775	421.433	0.48528839
5.16 5.1	95	328.5	241	1168.55	554.611	0.52538531
5.2 5.1	19	86.6	66.6	178.666	165.444	0.07400401
5.07 5.1	27	110.9	83.4	172.118	169.356	0.01604713
5.18 5.1	28	99.4	71	116.556	114.856	0.01458526
5.23 5.1	67	284.3	220.2	702.223	397.744	0.43359303
5.09 5.1	58	308.3	253.6	337.484	197.556	0.41462114
5.17 5.1	99	434.4	340.6	382.634	230.978	0.39634742
5.07 5	219	551.1	335.6	386.379	216.767	0.43897831
5.1 5	125	374.6	253.2	554.903	304.256	0.45169516
5.12 5.08	88	287.2	200.2	408.762	241.978	0.40802227
5.03 5.14	168	499.2	335.8	1347.53	520.167	0.61398485
5.05 5.07	196	511.5	321	1352.23	497.867	0.63181781

5.14 5.11	1132.51	483.089	5.11	1132.51	483.089	0.57343511
5.11 5.01	137	448	315.6	590.678	421.222	0.28688389
5.13 5.09	124	434.5	317.8	483.388	362.567	0.24994621
5.08 5.07	117	438.8	327.6	483.95	371.667	0.23201364
5.07 5.07	119	475.3	363	556.779	409.122	0.26519858
5.02 5.02	150	535	394	657.263	437.744	0.33398959
5.04 5.01	131	450.9	330.6	585.092	375.889	0.35755573
5.05 5.04	107	402.1	301.6	485.807	372.644	0.23293818
5.06 5.04	90	340.7	256.8	423.528	331.178	0.21804934
5.02 5.02	72	291.3	225	324.686	256.1	0.21123793
5.06 5.05	121	407.6	294.4	601.71	363.044	0.39664622
5.04 5.07	103	371.3	274.8	483.287	327.833	0.3216598
5.03 5.05	99	353.8	261.8	412.754	307.5	0.25500419
5.03 5.08	43	169.4	126.4	236.941	177.256	0.25189815
5.13 5.07	51	220.3	169.8	296.913	233.656	0.21304894

5.1 5.04	43	202.9	160	275.275	213.878	0.22303878
5.09 5.06	54	241.3	190.4	314.686	249.3	0.20778173
5.11 5.13	127	416	293.2	781.822	388.311	0.50332557
5.15 5.07	107	440.2	338.6	609.58	412.4	0.32346862
5.2 5.13	82	358.9	279.2	710.026	412.967	0.41837764
5.1 5.1	85	260	176.2	571.889	287.844	0.49667855
5.07 5.05	66	285.5	221	571.289	334.256	0.41490909
5.07 5.07	115	368.4	258.2	596.584	355.089	0.40479631
5.07 5.02	171	532.7	365.4	705.057	433.5	0.38515609
5.06 5.08	90	303.2	216.4	444.257	290.978	0.34502326
5.09 5.12	170	502.5	336.2	779.719	432.311	0.44555539
5.12 5.1	111	336.6	228	525.33	276.789	0.47311404
5.13 5.09	115	395.1	282.4	552.544	355.622	0.35639153
5.1 5.09	125	367.8	246.4	600.51	330.367	0.44985596
5.03 5.06	84	233.8	152.2	355.093	193.911	0.45391489

5.22 5.19	108	360.6	255.2	527.363	325.222	0.38330524
5.1 5.14	58	200.6	144.2	385.582	225.333	0.41560291
5.04 5.08	48	131.5	83.4	255.196	141.611	0.44508926
5.04 5.1	46	171.8	126.8	330.454	204.022	0.38260091
5.07 5.4	192	492.2	306.6	1087.44	471.789	0.5661471
5.13 5.3	119	321.1	208.4	1210.49	531.589	0.56084809
5.07 5.54	152	451.9	305.2	1036.28	489.889	0.52726194
5.4 5.6	213	529.6	324	519.829	208.967	0.59800819
5.12 5.6	139	360.4	227.2	975.46	419.956	0.56947902
5.2 5.9	95	258.6	166.6	825.492	348.911	0.57732964
5.34 6	92	255.1	167.2	840.618	371.844	0.55765401
5.2 6.6	92	363.5	167.2	925.531	436.811	0.52804282
5.1 6.41	82	197.5	118.6	852.174	429.311	0.49621674
5.7 6.1	154	307.3	157.8	1838.28	541.856	0.7052375
6.11 6.1	259	573.7	326.2	2100.87	623.144	0.70338764

5.16 6.33	356	810.8	473.6	1671.58	490.1	0.70680434
5.46 6.61	128	300.1	173	559.194	472.778	0.15453671
5.9 6.21	36	129.9	92.6	364.563	291.211	0.20120528
5.71 5.71	115	233.1	119.8	1004.92	643.844	0.3593082
5.02 6.48	38	92.3	54.8	1324.06	594.489	0.55101053
5.17 5.17	55	168.5	115.8	1013.24	523.578	0.48326359
5 6.79	54	156.5	105.6	867.268	452.867	0.47782346
5.8 6.53	195	586.8	396.4	464.507	254.278	0.45258521
5.36 5.83	85	303.3	221.4	876.558	441.8	0.49598315
5.84 6.1	145	540.5	399.8	1137.47	538.256	0.52679543

5.48356979
0.83751932

Fv/Fm (avg)	PSII Red. State	PSII Red. State (avg)	PSII eff. (200)	PSII eff. (200 avg)	PSII eff. (1600)
0.43336907	0.756097561	0.829608697	0.119186047	0.106867778	0.008156607
	0.840220386		0.107325383		0.005639098
	0.892508143		0.094091904		-0.007125891
0.53011166	0.691472868	0.678193512	0.066612838	0.093760544	0.009995654
	0.679314565		0.116684082		0.014728097
	0.663793103		0.097984712		0.012883668
0.43313468	0.772808587	0.777852986	0.03609516	0.039849295	-0.003676471
	0.745		0.03259362		-0.000776398
	0.815750371		0.050859107		0.006716418
0.51609776	0.898648649	0.873294316	0.05204461	0.046031882	0.001964637
	0.861290323		0.041366906		0.011560694
	0.859943978		0.044684129		-0.003350084
0.36664109	0.77037037	0.818693715	0.068384539	0.065971061	0.004347826
	0.877431907		0.049693252		0

	0.808278867		0.079835391		0.000886525
0.47444656	0.672768879	0.738512119	0.137691238	0.116961951	0.008605852
	0.689826303		0.113704819		0.009191176
	0.852941176		0.099489796		0.008275862
0.38399409	0.594926979	0.618282972	0.057134816	0.060611006	0.014973958
	0.624539877		0.064021422		0.010192525
	0.63538206		0.060676779		0.010264901
0.63777956	0.594186696	0.585549793	0.085553118	0.096806925	0.009244373
	0.624618071		0.08322564		0.007585752
	0.537844612		0.121642016		0.019278097
0.09520372	0.895287958	0.908525273	-0.022222222	-0.020297369	-0.009852217
	0.894117647		-0.026548673		0.004784689
	0.936170213		-0.012121212		-0.006451613
0.69236451	0.588388215	0.601773402	0.09539749	0.106072405	0.01135777
	0.633891213		0.123673036		0.011597938

	0.583040778		0.099146688		0.016175232
0.58189842	0.542874769	0.518075379	0.090751302	0.107479365	0.017606685
	0.501391208		0.114078238		0.020046485
	0.509960159		0.117608553		0.022070415
0.35868886	0.8170347	0.681192398	0.046070461	0.054714502	-0.002210759
	0.57823741		0.047750865		0.001237624
	0.648305085		0.070322181		0.009507042
0.7419872	0.625558313	0.636446779	0.112484549	0.12573468	0.014672855
	0.637759454		0.126534323		0.016802068
	0.646022571		0.138185168		0.013401284
0.54185355	0.634805537	0.67007245	0.070519099	0.066330157	0.008300395
	0.695175439		0.061435523		0.005542085
	0.680236376		0.06703585		0.00506928
0.26338829	0.896797153	0.893297534	-0.002945508	0.009190912	-0.022012579
	0.863309353		0.013595166		-0.016286645

	0.919786096		0.016923077		-0.028192371
0.74612902	0.867315347	0.839748903	0.039509858	0.047938907	0.005547617
	0.786714686		0.057333498		0.005378627
	0.865216675		0.046973366		0.004711055
0.25948976	0.886266094	0.775018305	0.03030303	0.040603141	-0.000750751
	0.733043478		0.042553191		0.009122007
	0.705745342		0.048953202		0.010689655
0.44089511	0.819634703	0.744951907	0.054112554	0.057330348	0.007772021
	0.667361835		0.064475348		0.005819593
	0.747859182		0.053403141		0
0.34122461	0.814739689	0.884201156	0.067193676	0.075081695	0.00757077
	0.908629442		0.078536585		0.011988012
	0.929234339		0.079514825		0.013679891
0.35761824	0.614921781	0.5746956	0.134163209	0.12822091	0.015965939
	0.517433752		0.144907909		0.018645731

	0.591731266		0.105591613		0.026824344
0.27829365	0.810983397	0.759148178	0.035236542	0.044668388	0.004776527
	0.753153153		0.052169421		0.003875969
	0.713307985		0.0465992		0.005394297
0.7800847	0.638244393	0.644229202	0.080347871	0.10433115	0.006979911
	0.62647585		0.111347669		0.011901542
	0.667967364		0.121297909		0.011357491
0.545283	0.643582641	0.615932317	0.051679587	0.061986642	0.007051282
	0.594300518		0.092034968		0.021707246
	0.609913793		0.04224537		0.016794626
0.30557914	0.785135135	0.766780516	0.040899796	0.052205413	0
	0.763727121		0.041537508		0.010094213
	0.75147929		0.074178935		0.012360939
0.32170662	0.812929849	0.772977939	0.06195363	0.06245598	0.007952286
	0.732104121		0.070199587		0.015914138

	0.773899848		0.055214724		0.010771219
0.25587404	0.767080745	0.752199006	0.024761905	0.034199581	-0.004119464
	0.765625		0.037518038		0.001577287
	0.723891273		0.0403188		0.006656426
0.28865456	0.68496732	0.722029256	0.053580127	0.050254465	0.006578947
	0.65750736		0.054381711		0.005485893
	0.823613087		0.042801556		0.003641329
0.12601986	0.694214876	0.816030282	0.024622716	0.012255339	-0.006134969
	0.92248062		0.007481297		-0.00128041
	0.831395349		0.004662005		-0.019441069
0.34788628	0.741301059	0.751006158	0.05853499	0.060539407	0.008759124
	0.718468468		0.066429034		0.013464338
	0.793248945		0.056654196		0.010332951
0.6823481	0.579130839	0.552842054	0.078272083	0.070156498	0.010817108
	0.539953239		0.05758555		0.005471956

	0.539442084		0.074611862		0.007070397
0.63554402	0.437561779	0.523273416	0.116405606	0.117276397	0.014027149
	0.549649773		0.117612639		0.014173998
	0.582608696		0.117810945		0.012958963
0.18898274	0.883211679	0.833594989	0.0215311	0.023259599	0
	0.805607477		0.023422251		0
	0.811965812		0.024825446		-0.000848896
0.58858585	0.760957324	0.750185969	0.055942895	0.063941728	0.001729439
	0.747978437		0.065711754		0.006298945
	0.741622147		0.070170534		0.006525285
0.52970845	0.603909465	0.633001394	0.07560241	0.097460325	0.012781702
	0.623503808		0.118208212		0.01619819
	0.671590909		0.098570354		0.015787287
0.28142822	0.70049505	0.793796299	0.034027778	0.03918384	0.000757576
	0.840314136		0.030595813		-0.000847458

	0.84057971		0.052927928		0.009389671
0.58164691	0.846450846	0.806405881	0.080319076	0.098376912	0.018313953
	0.745913819		0.104152006		0.023413111
	0.826852977		0.110659656		0.025006252
0.45979934	0.542655225	0.573361645	0.055307131	0.059264628	0.00653789
	0.607240437		0.050815558		0.010602045
	0.570189274		0.071671196		0.015188834
0.18913245	0.699515347	0.742017391	0.048684947	0.036445399	0.006823821
	0.760124611		0.03480715		0.00353714
	0.766412214		0.025844102		-0.004023245
0.36026354	0.579051383	0.569699822	0.029864253	0.045449568	0.002111375
	0.607779579		0.055405405		0.005764192
	0.522268504		0.051079045		0.005957981
0.38349492	0.49614792	0.609213103	0.075183824	0.063346244	0.011719684
	0.685238369		0.061709212		0.008767535

	0.646253022		0.053145695		0.011111111
0.36336111	0.611555556	0.633843547	0.054272014	0.069474917	0.011445302
	0.600208768		0.064516129		0.018352365
	0.689766317		0.089636608		0.018856806
0.59003448	0.502667005	0.548584638	0.089512358	0.107332001	0.021596743
	0.591053829		0.113311507		0.018479672
	0.552033081		0.119172138		0.020871017
0.44034184	0.443850267	0.482288542	0.085651075	0.09541018	0.007424775
	0.501557632		0.099957645		0.00843437
	0.501457726		0.10062182		0.009715475
0.55521992	0.620460358	0.609446608	0.065865866	0.066388182	0.007930954
	0.611377656		0.057949842		0.006455234
	0.596501809		0.075348837		0.008465319
0.49194755	0.617893756	0.583977604	0.062052506	0.064088141	0.010976088
	0.557706627		0.06639839		0.010291595

	0.57633243		0.063813527		0.007393715
0.54612539	0.543241512	0.585018057	0.130053718	0.132820356	0.019444444
	0.629541864		0.133922001		0.028509719
	0.582270795		0.134485349		0.025648585
0.28634591	0.745203377	0.749248544	0.058274399	0.066614291	0.008666048
	0.701521846		0.075545309		0.010813999
	0.801020408		0.066023166		0.012778236
0.54666626	0.676441838	0.723878165	0.085271318	0.082727137	0.007991476
	0.744166667		0.075542259		0.00879397
	0.751025992		0.087367835		0.004929144
0.28467265	0.737068966	0.765947214	0.064136126	0.069226526	0.015406162
	0.752525253		0.080924855		0.011529593
	0.808247423		0.062618596		0.011952191
0.41263181	0.744790592	0.692155204	0.095642069	0.103836088	0.014709815
	0.626320845		0.115605553		0.016488285

	0.705354174		0.100260643		0.013973269
0.55075855	0.834019204	0.731013983	0.054553084	0.088033893	0.010931351
	0.67755857		0.096121417		0.018600326
	0.681464174		0.113427179		0.023193577
0.0348788	0.884955752	0.857678749	0.011210762	0.008267151	-0.014051522
	0.808823529		0.00681431		-0.009099181
	0.879256966		0.006776379		-0.006072874
0.41485386	0.614573346	0.67855527	0.079198767	0.067009891	0.01147427
	0.667073171		0.063766389		0.009000321
	0.754019293		0.058064516		0.011604096
0.43289858	0.708648471	0.719939254	0.055025793	0.05569212	0.00666907
	0.691343964		0.063432836		0.008994709
	0.759825328		0.048617731		0.004160888
0.60641259	0.477498539	0.62594686	0.087758112	0.084986069	0.008933889
	0.558814902		0.093216498		0.009872242

	0.84152714		0.073983598		0.006695464
0.25628125	0.662662663	0.670512415	0.093131548	0.102616402	0.009287926
	0.689716312		0.103696099		0.01674966
	0.659158269		0.11102156		0.013932584
0.31891463	0.638430927	0.643251171	0.098534051	0.120544362	0.013491075
	0.659494855		0.110891741		0.016724867
	0.631827731		0.152207294		0.023391813
0.22074182	0.616186389	0.579921504	0.108026684	0.119572049	0.014943655
	0.581024931		0.119641077		0.01617095
	0.542553191		0.131048387		0.017537943
0.32443674	0.55653884	0.566366326	0.128565689	0.130300065	0.019249278
	0.552059497		0.132784698		0.018244315
	0.590500642		0.129549808		0.018312986
0.22932862	0.675039246	0.703317885	0.037874803	0.032442995	0
	0.758258258		0.0321489		0.004518753

	0.676656151		0.027305282		0
0.34485864	0.642676768	0.694479721	0.068991098	0.070127312	0.011065574
	0.688726865		0.08038176		0.009051929
	0.752035529		0.061009077		0.011896745
0.44332176	0.544027304	0.631869741	0.059666432	0.048483954	0.005541701
	0.748214286		0.03851492		0.002685079
	0.603367633		0.047270509		0.00591922
0.37832522	0.641443539	0.720010439	0.060465116	0.041925323	0.012597159
	0.822517207		0.01371308		0.006712661
	0.696070569		0.051597772		0.009150327
0.42502032	0.74573991	0.712369007	0.044527897	0.044912739	0.00809317
	0.702912621		0.047843137		0.006493506
	0.68845449		0.042367182		0.006037736
0.42902536	0.700923788	0.70822513	0.05171592	0.049920307	0.011024469
	0.707718994		0.04635514		0.008902077

	0.716032609		0.051689861		0.008250825
0.41443103	0.582644628	0.598354443	0.059751037	0.062964291	0.005946482
	0.661623109		0.071108264		0.002276176
	0.550795594		0.058033573		0.005787037
0.55141904	0.763786008	0.751882877	0.072234352	0.087525332	0.011845011
	0.765625		0.109111361		0.018343014
	0.726237624		0.081230284		0.012672056
0.58160562	0.825371337	0.738648803	0.099633572	0.112718243	0.013045099
	0.69884575		0.137386309		0.014762165
	0.691729323		0.101134846		0.009954058
0.52730452	0.605789111	0.677426158	0.113032341	0.116605054	0.016955684
	0.755		0.113529963		0.018363489
	0.671489362		0.123252859		0.012993503
0.70514316	0.620847176	0.605194112	0.133718013	0.157707892	0.012849341
	0.58956646		0.16769437		0.019483849

	0.605168701		0.171711292		0.02313253
0.23835006	0.844518272	0.807895061	0.028438949	0.041566564	0.003652058
	0.847727273		0.028550512		-0.008540373
	0.731439638		0.067710229		0.008507018
0.50403253	0.690607735	0.635499263	0.147571036	0.138345322	0.009656652
	0.615654206		0.134061569		0.0140433
	0.600235849		0.133403361		0.019423559
0.49178793	0.553971487	0.502501836	0.074854749	0.083784562	0.007106599
	0.45049505		0.097470238		0.008823529
	0.50303897		0.079028698		0.007528461

PSII eff. (1600 avg)

0.002223271

0.012535806

0.000754517

0.003391749

0.001744784

0.008690964

0.011810461

0.012036074

0

0.013043647

0.019907861

0.002844636

0.014958736

0.00630392

0