Appendix [C] Calculations

	Chemical	Concentration [ppm]	Method	Average To [°C]	Average Ta [°C]	Operation	Divagation (%)	
Cell volume [ml]								
10	Luvicap 55W	2500	Constant cooling	8.3	6.7	20 ml --> 10 ml	-16.9	To
20	Luvicap 55W	2500	Constant cooling	7.1	5.8	20 ml --> 30 ml	9.9	To
30	Luvicap 55W	2500	Constant cooling	6.4	5	20 ml --> 10 ml	-15.5	Ta
						20 ml --> 30 ml	13.8	Ta
10	Luvicap 55W	5000	Constant cooling	6.3	4.3	20 ml --> 10 ml	-1.6	To
20	Luvicap 55W	5000	Constant cooling	6.2	3.4	20 ml --> 30 ml	22.6	To
30	Luvicap 55W	5000	Constant cooling	4.8	2.2	20 ml --> 10 ml	-26.5	Ta
						20 ml --> 30 ml	35.3	Ta
				Average to [mins]	**Average ta [mins]**			
10	Luvicap 55W	5000	Isothermal	211	243	20 ml --> 10 ml	67.5	to
20	Luvicap 55W	5000	Isothermal	650	699	20 ml --> 30 ml	-74.2	to
30	Luvicap 55W	5000	Isothermal	1132	1132	20 ml --> 10 ml	65.2	ta
						20 ml --> 30 ml	-61.9	ta
Rocking rate [rocks per minute]				**Average To [°C]**	**Average Ta [°C]**			
10	Luvicap 55W	2500	Constant cooling	8.1	5.8	20 rmp --> 10 rpm	-14.1	To
20	Luvicap 55W	2500	Constant cooling	7.1	5.8	20 rmp --> 10 rpm	0.0	Ta
10	Luvicap 55W	5000	Constant cooling	5.6	3.7	20 rmp --> 10 rpm	15.2	To
20	Luvicap 55W	5000	Constant cooling	6.6	3.5	20 rmp --> 10 rpm	-5.7	Ta
				Average to [mins]	**Average ta [mins]**			
10	Luvicap 55W	5000	Isothermal	589	660	20 rmp --> 10 rpm	9.4	To
20	Luvicap 55W	5000	Isothermal	650	699	20 rmp --> 10 rpm	5.6	Ta
Rocking angle [°]				**Average To [°C]**	**Average Ta [°C]**			
25	Luvicap 55W	2500	Constant cooling	7.4	5.8	20 rmp --> 10 rpm	-4.2	To
40	Luvicap 55W	2500	Constant cooling	7.1	5.8	20 rmp --> 10 rpm	0.0	Ta
25	Luvicap 55W	5000	Constant cooling	6.2	3.5	20 rmp --> 10 rpm	6.1	To
40	Luvicap 55W	5000	Constant cooling	6.6	3.6	20 rmp --> 10 rpm	2.8	Ta
				Average to [mins]	**Average ta [mins]**			
25	Luvicap 55W	5000	Isothermal	654	723	20 rmp --> 10 rpm	-0.6	To
40	Luvicap 55W	5000	Isothermal	650	699	20 rmp --> 10 rpm	-3.4	Ta
Rocking ball				**Average To [°C]**	**Average Ta [°C]**			
Glass	Luvicap 55W	2500	Constant cooling	7.4	5.8	Steel --> Glass	-4.2	To
Steel	Luvicap 55W	2500	Constant cooling	7.1	5.8	Steel --> Glass	0.0	Ta
Glass	Luvicap 55W	5000	Constant cooling	3.4	5.7	Steel --> Glass	2.9	To
Steel	Luvicap 55W	5000	Constant cooling	3.5	6.6	Steel --> Glass	13.6	Ta
				Average to [mins]	**Average ta [mins]**			
Glass	Luvicap 55W	5000	Isothermal	546	601	Steel --> Glass	16.0	To
Steel	Luvicap 55W	5000	Isothermal	650	699	Steel --> Glass	14.0	Ta
Concentration				**Average To [°C]**	**Average Ta [°C]**			
	Luvicap 55W	1000	Constant cooling	10.2	9.2	2500 --> 1000	-43.7	To
	Luvicap 55W	2500	Constant cooling	7.1	5.8	2500 --> 1000	-58.6	Ta
	Luvicap 55W	5000	Constant cooling	6.6	3.5	2500 --> 5000	7.0	To
	Luvicap 55W	10000	Constant cooling	5.2	2	2500 --> 5000	39.7	Ta
						5000 --> 10000	21.2	To
						5000 --> 10000	42.9	Ta
				Average to [mins]	**Average ta [mins]**			
	Luvicap 55W	1000	Isothermal	0	8	5000 --> 1000	98.9	Ta
	Luvicap 55W	5000	Isothermal	650	699	5000 --> 10000	-61.2	To
	Luvicap 55W	10000	Isothermal	1048	1189	5000 --> 10000	-70.1	Ta
Synergist				**Average To [°C]**	**Average Ta [°C]**			
	Luvicap EG + TBAB (1:1)	2500	Constant cooling	6.6	6.1	Luv. EG --> Luv. EG+TBAB	24.1	To
	Luvicap EG	2500	Constant cooling	8.7	8.1	Luv. EG --> Luv. EG+TBAB	24.7	Ta
	Luvicap EG + BGE (1:1)	2500	Constant cooling	7.4	4	Luv. EG --> Luv. EG+BGE	14.9	To
	Luvicap EG	2500	Constant cooling	8.7	8.1	Luv. EG --> Luv. EG+BGE	50.6	Ta
	Luvicap EG + BGE (1:1)	5000	Constant cooling	3.2	2.7	Luv. EG --> Luv. EG+BGE	50.8	To
	Luvicap EG	5000	Constant cooling	6.5	6.3	Luv. EG --> Luv. EG+BGE	57.1	Ta
Conditioning of cells								
Theory	Distilled water		Constant cooling	19.9		Theory --> December	7.0	To
December	Distilled water		Constant cooling	18.5		Theory --> February	11.6	To
February	Distilled water		Constant cooling	17.6		December --> February	4.9	To
03.12.10	Luvicap 55W	5000	Constant cooling	6.9	4.1	December --> March	10.1	To
04.03.11	Luvicap 55W	5000	Constant cooling	6.2	3.4	December --> March	17.1	Ta
03.12.10	Inhibex 101	2500	Constant cooling	6.1	3.3	December --> March	21.3	To
04.03.11	Inhibex 101	2500	Constant cooling	4.8	3.1	December --> March	6.1	Ta