

Alcohol depresses, but does not abolish the induction of long-term potentiation (LTP) in
the rat hippocampus

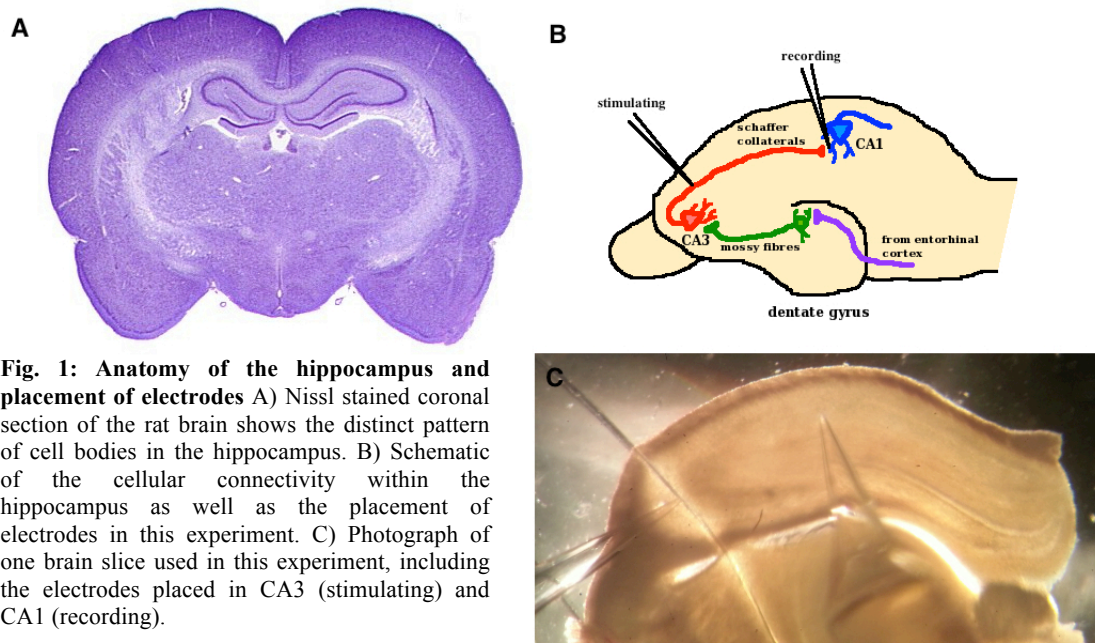
Allison Goodwin-Wilson
260357581
Partner: Daryan Chitsaz

Introduction

Long-term synaptic plasticity is important at many stages during neural development and maturity. It plays a critical role in the cultivation of stable and relevant neuronal connections (Lynch, 2004), and has been strongly implicated in learning and memory (Thompson, 1986, Muller et al, 2002, Hölscher, 1999, and many others). Long-term potentiation (LTP) can be induced using a high frequency tetanic stimulus, and increases the excitability of the post-synaptic cell. The basic important characteristics of long-term synaptic plasticity, specifically, long-term potentiation, can be outlined. Firstly, it is persistent; it can last from hours, to months, or even longer (Abraham, 2003). Second, it is input specific, and will only be induced at synapses that have been appropriately stimulated (Gustafsson et al, 1987). Finally, it is associative. In keeping with Donald Hebb's famous postulate, which Carla Shatz later succinctly summarized: "Neurons that fire together, wire together" (Hebb, 1949), long term plasticity will only be induced on a synapse if the stimulations cause pre-synaptic and post-synaptic activity in tandem. This is demonstrated by experiments in which two different inputs (P1 and P2) on an output cell are simultaneously stimulated with different amounts of activity (strong and weak, sufficient and insufficient to drive an action potential in the output cell, respectively). Even with the weak stimulation insufficient to drive the output cell to fire, P2 is still strengthened, because the activity imparted upon the output cell by the sufficiently stimulated P1 is also associated with P2 (Barrionuevo et al, 1983).

After bilateral removal of patient H.M's medial-temporal cortex, studies by Brenda Milner regarding his subsequent inability to form new declarative memories indicated the hippocampus as a key area for learning and memory development (Scoville

et al, 1957). Learning, memory, and plasticity research now often uses the hippocampus as a model system. In addition to its well-documented role in learning and memory, a



benefit of using the hippocampus in LTP research is the stereotyped connectivity between its cells. Projections from the entorhinal cortex enter the dentate gyrus to synapse on granule cells, whose axons, called mossy fibres, excite CA3 region pyramidal cells. CA3 projections are called schaffer collaterals, and form excitatory connections with CA1 region pyramidal cells, which project to the subiculum (Fig. 1) (El Falougy et al, 2008). The classical area for studies in long-term plasticity is the connection between CA3 and CA1.

The molecular mechanisms and pathways involved in long-term plasticity have been widely studied. In brief, LTP leads to the insertion of more AMPA receptors into the post-synaptic membrane (Lu et al, 2001). In order to do this, several cellular events must occur. The first essential element of the LTP pathway is the NMDA receptor. Because of its magnesium block, the NMDA-R will not allow cations to flow through its

pore until a threshold of post-synaptic depolarization has been reached. It's opening indicates activity in the postsynaptic cell, making the NMDA-R a coincidence detector for pre- and post-synaptic activity (Dingledine et al, 1999). Release of the magnesium block and the associated influx of calcium ions into the post-synaptic cell are vital for LTP. Indeed, LTP inductions in the presence of an NMDA-R antagonist have no effect on the excitability of the post-synaptic cell (Remondes et al, 2002). The next important part of intracellular LTP induction is the calcium that passes through the NMDA receptors; very little calcium enters the cell through AMPA channels (Gonzales et al, 1997). When the light-activated calcium buffer *diaz-4* is turned on in CA1 neurons, no calcium is available to activate downstream targets, and LTP is abolished (Malenka et al, 1992). The final important cellular components for LTP induction are all downstream from calcium. Calcium activates calcium-calmodulin kinase II (CaMKII) as well as PKC (Malinow et al, 1989). CaMKII phosphorelates AMPA receptors, increasing their conductance, and both kinases allow for pooled AMPA receptors to be trafficked to the post-synaptic membrane, increasing the inward current during an EPSP and excitability of the cell (Fink et al, 2002). In order to maintain the potentiation for an extended period of time, cells must also change their proteome. Downstream from CaMKII and PKC are other protein kinases, notably PKA, whose own downstream effectors phosphorelate and activate the nuclear transcription factor CREB. CREB is responsible for the long-term structural and functional changes of cells in which LTP has been induced (Silva et al, 1998).

Cells that exhibit LTP are glutaminergic cells that express NMDA receptors. It is not surprising that alcohol, an NMDA-R inhibitor which is associated with memory loss,

would have a deleterious effect on LTP in hippocampal CA1 cells (Hicklen et al, 2010). Even at low concentrations, alcohol has been shown to negatively affect excitatory NMDA activity (Gonzales et al, 1997), an effect that increases in a dose-dependent manner (Wayner et al, 1993). Through its effect on NMDA receptors, the increased EPSP amplitude characteristic to LTP diminishes (Hicklin et al, 2010). Different mechanisms have been proposed with respect to the mechanism of ethanol's inhibition of the NMDA receptor: some researchers put forth the idea that it acts directly on the receptor (Ren et al, 2008), while others argue that it interferes with the phosphorylation of the receptor, decreasing its efficacy (Heiklin et al, 2010). Whichever mechanism it acts through, however, it is important to understand its effects on LTP, which is inextricably intertwined with learning and memory. Paired with the field's current knowledge of intracellular LTP signaling, experiments similar to the following, which connect ethanol to LTP, could help with the treatment of cognitive loss secondary to alcohol abuse (Brandt et al, 1983) as well as the associated long-term memory defects (Nelson et al, 1986).

Methods

We used acute, 250-micron thick, coronal hippocampal slices from P21-35 male rats. The brains were bathed in ice cold artificial cerebrospinal fluid while they were sliced using a microtome, and were then incubated for approximately 45 minutes at 37°C and cooled to room temperature. In the control condition, five rats were used, whereas in each ethanol condition we recorded from only three because of time constraints.

We placed each hippocampal slice under a dissecting microscope in a small dish and constantly perfused it with ACSF that had been oxygenated and buffered by bubbling

it with carbogen (95% O₂ to oxygenate and 5% CO₂ to buffer using the bicarbonate buffering system). Enough calcium and magnesium was added to the ACSF to give it a 3mM and 1mM concentration of ions, respectively. The ACSF served to keep the neurons healthy and functional during the experiment. We held each coronal section in place using a slice holder. We then placed the stimulating electrode into the schaffer collateral projections from CA3 at the border of CA1, and the recording electrode into the striatum radiatum of the CA1 region. We immersed two ground wires in the dish of ACSF, one to complete the stimulating electrode's circuit, the other to complete the

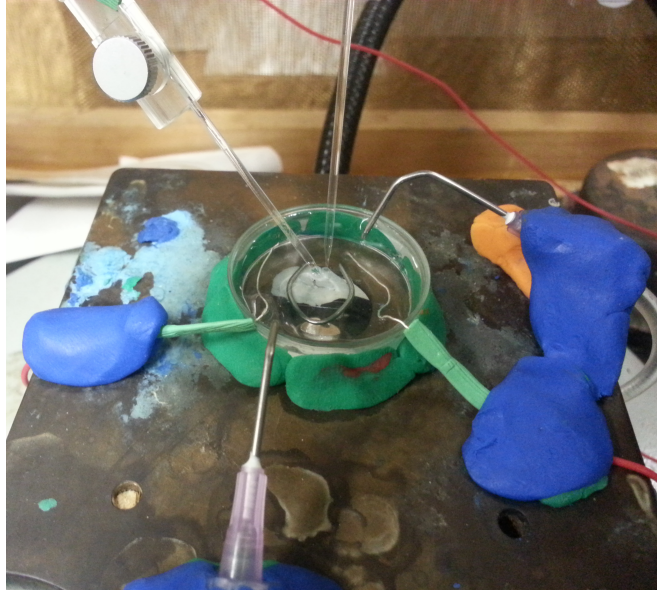


Fig. 2: Full set-up under the microscope. Visible are the two ground wires, two electrodes, ACSF input and suction tubes, as well as the slice holder keeping the brain tissue in place.

recording electrode's circuit (Fig. 2). The stimulating electrode was connected to a stimulator and an amplifier, which was connected to a computer. The recording electrode was also connected to the computer. The computer was running a data acquisition and analysis program from Molecular Devices called pClamp, with which we recorded data from each brain slice.

For each condition we recorded one pre-induction baseline for five minutes, and one post-induction baseline for ten minutes. Each recording consisted of a number of sweeps, evenly spaced 5013.9ms apart, which were measurements of the postsynaptic response (field potential) in CA1 to the stimulation in CA3. This allowed for 60 sweeps

in the pre-induction baseline, and 120 in the post-induction baseline. In between the recordings of the two baselines, we induced LTP using a theta-burst LTP protocol, which consists of 12 bursts of 4 pulses at 100Hz with an interburst interval of 200ms. This particular protocol is thought to mimic hippocampal cell firing and gives strong LTP (Capocchi et al, 1992). To obtain data in the alcohol conditions, we made an additional three flasks of ACSF with 20mM, 40mM, and 60mM ethanol mixture (85% ethanol, 15% methanol) concentration (see appendix for calculations), as well as the appropriate amount of calcium and magnesium. We did not add more than 60mM because of potential damage to the brain cells, and because 60mM has previously been used to significantly inhibit LTP in the hippocampus (Swartzwelder et al, 1995, and others). Before recording, each ethanol-ACSF was washed through the dish with the brain slice for five minutes.

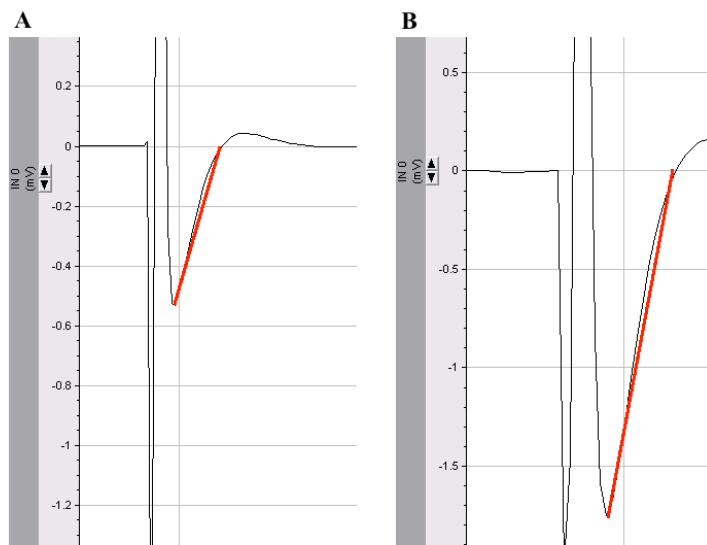


Fig. 3: Example of data acquired from two sweeps, one before LTP induction (A), and one after (B). Red lines indicate how the slope was measured.

To analyze the data, we used Molecular Devices Axoscope10.2 software. We placed one cursor at the lowest point of the field potential and another at the baseline (Fig. 3). We measured the rise (mV) and the run (ms) of each sweep. In Microsoft Excel,

we calculated the slope of each postsynaptic response (recorded from CA1) because slope

is the classic and best measure of the strength of the synaptic response, and matched each sweep to a time point within the recording. We then took the average slope over all the subjects for each time point. To compare the responses of the two baselines we calculated the difference between the average slopes of each of the 60 sweeps from the pre-induction recording to those of the last 60 sweeps of the post-induction baseline. We used only the last 60 sweeps post-induction to eliminate any confounding data that might have occurred due to post-tetanic potentiation, a pre-synaptically driven augmentation of response that is shorter lasting than LTP (Sastry et al, 1986). Paired t-tests were done with a Bonferroni correction for multiple comparisons on the average rising slope between pre- and post-induction baselines within conditions to detect LTP within a condition. They were also done on the difference between average slopes between all combinations of conditions to determine differences in the amount of LTP induced. Total average slope over all time points for each baseline in each condition were also calculated, along with the difference between total averages between pre- and post-

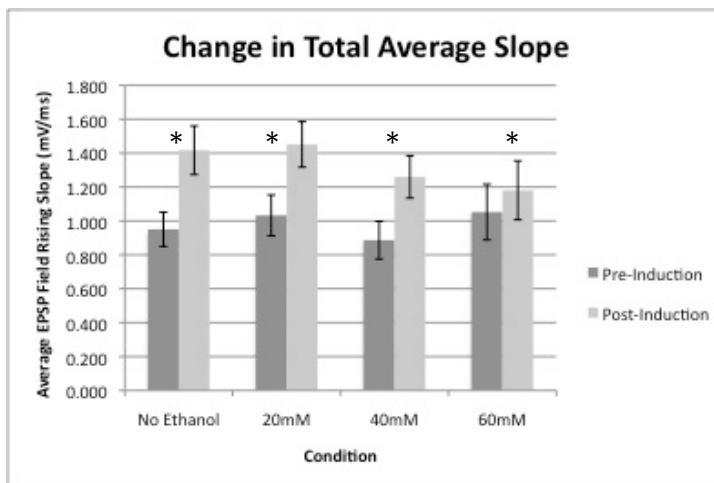


Fig. 4: LTP was shown for all conditions as measured by the change in average ascending EPSP field rising slope between the pre-induction baseline and the post-induction baseline.

induction baselines.

Results

First, we tested whether or not each condition showed LTP. We compared each pre-induction baseline slope to the post-induction baseline slope of the same condition using paired

t-tests with Bonferroni corrected alpha levels. We used all 60 trials of the pre-induction

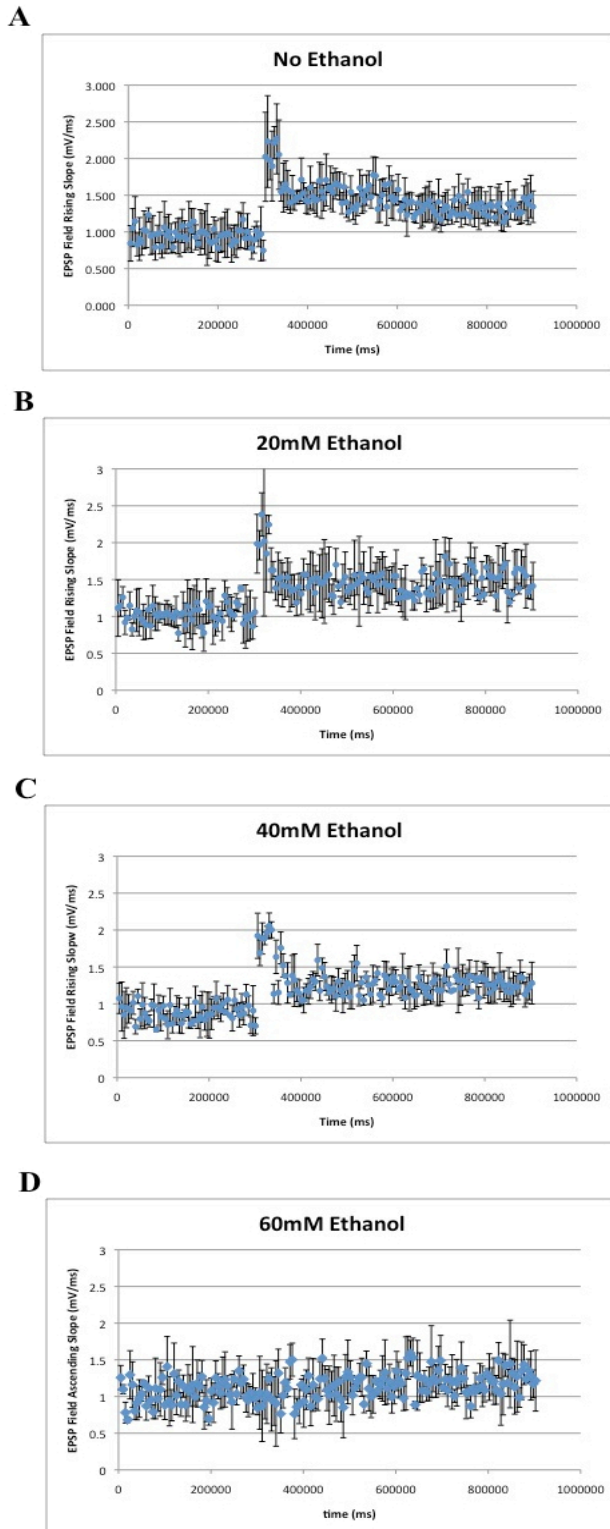


Fig. 5: LTP induced in each condition. Pre- and post-induction baselines are visible using the average slope calculated as a function of time.

and the last 60 trials of the post-induction. We found that in each condition, there was a significant difference ($p < 0.05$) between baseline averages (no ethanol: pre-induction = 0.951mV/ms, post-induction = 1.327mV/ms; 20mM ethanol: pre-induction = 1.033mV/ms, post-induction = 1.451mV/ms; 40mM ethanol: pre-induction = 0.887mV/ms, post-induction = 1.251mV/ms; 60mM ethanol: pre-induction = 1.052mV/ms, post-induction = 1.223mV/ms) (Fig. 4, 5), indicating that LTP is not abolished by ethanol in these three concentrations.

Next, we compared the extent of the LTP displayed in each condition. First we calculated the difference between the pre- and post-induction baselines within each condition to generate a parameter called ‘change,’ which was used as the global measure of LTP for each condition. Again, using paired t-tests with Bonferroni corrected alpha levels, we compared the amount of LTP between every combination of conditions. 60mM ethanol showed less LTP ($p < 0.05$) than all other

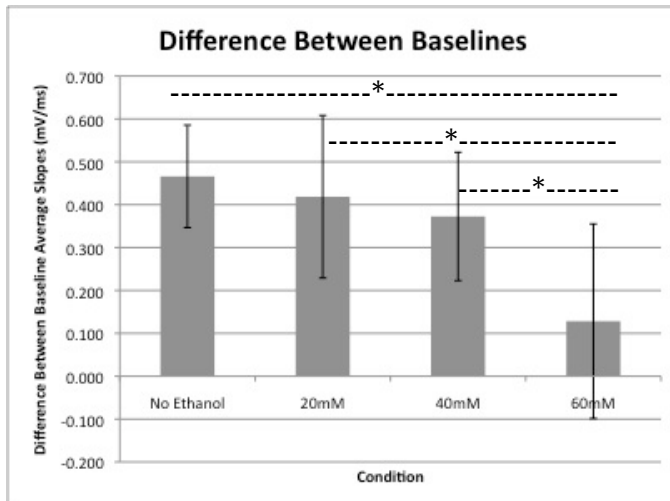


Fig. 6: Change between average baseline slope for each condition. 60mM ethanol showed significantly less change between pre- and post-induction than all the others, which did not differ from one another. All conditions do appear to show a trend towards dose-dependence, however.

conditions (60mM = 0.171mV/ms vs. no ethanol = 0.376mV/ms, 20mM = 0.418mV/ms, 40mM = 0.364mV/ms). LTP induced in the no ethanol condition was no different from the 20mM or 40mM conditions, nor was LTP in the 20mM condition different from that in the 40mM condition ($p>0.05$), although the ethanol

conditions did show a trend towards a dose dependent decrease in LTP (Fig. 4, 6).

Finally, to quantify the amount of LTP induced in each condition with relation to the other conditions, we calculated what percentage of the LTP induced in the no ethanol condition was induced in 20mM, 40mM, and 60mM of ethanol (Fig. 7). 20mM of ethanol showed 89.8% of the control condition's LTP, and 40mM ethanol showed 80.0%, while 60mM ethanol, which was the only condition that was significantly different from the others, only showed 27.5% of the control condition's LTP. These results indicate that alcohol does have a negative effect on long-term

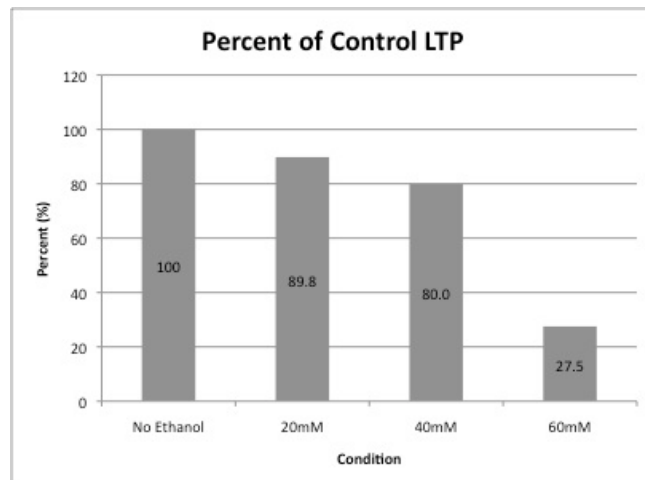


Fig. 7: Percent of the LTP induced in the no ethanol condition that was induced in the other three conditions. The trend towards dose dependence is again seen, although only the decrease in LTP induced in 60mM was significant.

potentiation in the hippocampus, and while there does appear to be a trend towards a dose-dependent decrease in LTP, this decline does not become significant until brain slices are bathed in a 60mM concentration of ethanol-ACSF.

Discussion

Our results neatly display the expected long-term potentiation of the CA3-CA1 pathway in the hippocampus. Several experiments have found that in the hippocampal CA1 region, an increase in excitability of the neurons can be found for hours or even days after tetanic stimulation of the CA3 schaffer collaterals (Barrionuevo et al, 1983, Remondes et al, 2002, and others). Our results mimicked this potentiation on a shorter time scale, but one that is still known to be associated with long-term potentiation (Abraham et al, 2003). Furthermore, alcohol induced LTP depression. Furthermore, a depression of LTP in the hippocampus has been extensively reported in the presence of alcohol (Pyapali et al, 1999, Sinclair et al, 1986 and others). The effect of alcohol on LTP agrees with the negative effect on memory brought about by excessive alcohol use (Sinclair et al, 1986), and further validates the role the hippocampus is known to play in memory (Scoville et al, 1957). Our results show a similar depression, which serves to strengthen the field of research linking alcohol, memory, LTP and the hippocampus.

With respect to the dose dependency of LTP inhibition by ethanol, our results did not represent the current literature, which finds that the effect of ethanol on LTP increases with a higher dose (Wayner et al, 1993). This disagreement may have been due to a small sample size. Had we used more than three brain slices, the variation of slopes per time point during the baseline tests would have decreased, which may have made the slight difference between our ethanol-free condition, 20mM, and 40mM more significant.

Additionally, we could repeat the experiment, giving the ethanol-ACSF more time to wash through the plate, making sure that the brain slice was certainly being bathed in the correct concentration of alcohol. Notably, the ethanol solution used was a mixture of 85% ethanol and 15% methanol. Experiments should be repeated using pure ethanol to avoid any confounding data generated by methanol, which is extremely toxic.

Our experiment raises some interesting questions that could be further investigated in the future. The LTP observed here was on a fairly short time scale (one of minutes), whereas LTP has been known to last for an extended period of time, even years (Remondes et al, 2002). The effects of alcohol on a longer scale LTP could shed light on the intracellular mechanisms that contribute to this loss of potentiation. For example, if CREB transcription factors are downregulated by alcohol, it is likely to find a longer scale change in the LTP, and more structural changes to the cell, whereas if alcohol merely causes a more transient (but still minutes-long) depression, it could be related to a loss of AMPA receptor number or efficacy by way of a different pathway. Second, it would be interesting to note the effects of alcohol on cells exhibiting long-term depression (LTD), and whether it is decreased or increased. Next, taking into account another body of literature regarding the age-dependent nature of LTP depression (Pyapali et al, 1999), it would be interesting to control for the age of rats used and look for effects.

In conclusion, the data acquired in our experiment matched that of the current literature, which states that ethanol depresses the induction of LTP in hippocampal CA1 neurons in rats. We did not manage to duplicate significant results that demonstrate the known dose-dependence of this effect and only found a trend towards dose-dependence. With certain adjustments to the experimental paradigm, however, we are confident that

dose would become statistically significant. Finally, our experiment raises several other interesting questions that can be addressed regarding both mechanism and the qualitative nature of alcohol's effect on LTP.

Works Cited

1. Abraham, W. C. (2003). "How long will long-term potentiation last?" Philosophical transactions of the Royal Society of London. Series B, Biological sciences **358**(1432): 735-744.
2. Barrionuevo, G. and T. H. Brown (1983). "Associative long-term potentiation in hippocampal slices." Proceedings of the National Academy of Sciences of the United States of America **80**(23): 7347-7351.
3. Brandt, J., N. Butters, et al. (1983). "Cognitive loss and recovery in long-term alcohol abusers." Archives of general psychiatry **40**(4): 435-442.
4. Capocchi, G., M. Zampolini, et al. (1992). "Theta burst stimulation is optimal for induction of LTP at both apical and basal dendritic synapses on hippocampal CA1 neurons." Brain research **591**(2): 332-336.
5. Dingledine, R., K. Borges, et al. (1999). "The glutamate receptor ion channels." Pharmacological reviews **51**(1): 7-61.
6. El Falougy, H., E. Kubikova, et al. (2008). "The microscopical structure of the hippocampus in the rat." Bratislavske lekarske listy **109**(3): 106-110.
7. Fink, C. C. and T. Meyer (2002). "Molecular mechanisms of CaMKII activation in neuronal plasticity." Current opinion in neurobiology **12**(3): 293-299.
8. Gustafsson, B., H. Wigstrom, et al. (1987). "Long-term potentiation in the hippocampus using depolarizing current pulses as the conditioning stimulus to single volley synaptic potentials." The Journal of neuroscience : the official journal of the Society for Neuroscience **7**(3): 774-780.
9. Hebb, D. O. (1967). "The organization of behavior: A neuropsychological theory." New York, NY: Wiley Publishing.
10. Hicklin, T. R., P. H. Wu, et al. (2011). "Alcohol inhibition of the NMDA receptor function, long-term potentiation, and fear learning requires striatal-enriched protein tyrosine phosphatase." Proceedings of the National Academy of Sciences of the United States of America **108**(16): 6650-6655.
11. Holscher, C. (1999). "Synaptic plasticity and learning and memory: LTP and beyond." Journal of neuroscience research **58**(1): 62-75.
12. Lu, W., H. Man, et al. (2001). "Activation of synaptic NMDA receptors induces membrane insertion of new AMPA receptors and LTP in cultured hippocampal neurons." Neuron **29**(1): 243-254.
13. Lynch, M. A. (2004). "Long-term potentiation and memory." Physiological reviews **84**(1): 87-136.
14. Malenka, R. C., B. Lancaster, et al. (1992). "Temporal limits on the rise in postsynaptic calcium required for the induction of long-term potentiation." Neuron **9**(1): 121-128.
15. Malinow, R., H. Schulman, et al. (1989). "Inhibition of postsynaptic PKC or CaMKII blocks induction but not expression of LTP." Science **245**(4920): 862-866.
16. Muller, D., I. Nikonenko, et al. (2002). "LTP, memory and structural plasticity." Current molecular medicine **2**(7): 605-611.
17. Nelson, T. O., M. McSpadden, et al. (1986). "Effects of alcohol intoxication on metamemory and on retrieval from long-term memory." Journal of experimental psychology. General **115**(3): 247-254.
18. Remondes, M. and E. M. Schuman (2002). "Direct cortical input modulates plasticity and spiking in CA1 pyramidal neurons." Nature **416**(6882): 736-740.
19. Ren, H., A. K. Salous, et al. (2008). "Functional interactions of alcohol-sensitive sites in the N-methyl-D-aspartate receptor M3 and M4 domains." The Journal of biological chemistry **283**(13): 8250-8257.
20. Sastry, B. R., J. W. Goh, et al. (1986). "Associative induction of posttetanic and long-term potentiation in CA1 neurons of rat hippocampus." Science **232**(4753): 988-990.
21. Scoville, W. B. and B. Milner (1957). "Loss of recent memory after bilateral hippocampal lesions." Journal of neurology, neurosurgery, and psychiatry **20**(1): 11-21.
22. Silva, A. J., J. H. Kogan, et al. (1998). "CREB and memory." Annual review of neuroscience **21**: 127-148.
23. Sinclair, J. G. and G. F. Lo (1986). "Ethanol blocks tetanic and calcium-induced long-term potentiation in the hippocampal slice." General pharmacology **17**(2): 231-233.
24. Swartzwelder, H. S., W. A. Wilson, et al. (1995). "Age-dependent inhibition of long-term potentiation by ethanol in immature versus mature hippocampus." Alcoholism, clinical and experimental research **19**(6): 1480-1485.
25. Thompson, R. F. (1986). "The neurobiology of learning and memory." Science **233**(4767): 941-947.
26. Wayner, M. J., D. L. Armstrong, et al. (1993). "Ethanol and diazepam inhibition of hippocampal LTP is mediated by angiotensin II and AT1 receptors." Peptides **14**(3): 441-444.

Appendix:

SAMPLE SLOPE CALCULATION:

(trial 1, subject 1, no ethanol condition)

$$\text{slope} = \frac{\text{rise}}{\text{run}}$$

$$\text{slope} = \frac{0.300 \text{ mV}}{0.347 \text{ ms}}$$

$$\text{slope} = 0.866 \text{ mV/ms}$$

SAMPLE AVERAGE CALCULATION:

(trial 1, no ethanol condition)

$$x_{\text{bar}} = \frac{\sum x_i}{N} \text{ (from } i = 1 \text{ to } i)$$

$$x_{\text{bar}} = \frac{0.866 + 1.245 + 0.719 + 0.612 + 0.788}{5}$$

$$x_{\text{bar}} = \frac{4.220}{5}$$

$$x_{\text{bar}} = 0.844 \text{ mV/ms}$$

SAMPLE STANDARD DEVIATION CALCULATION:

(trial 1, no ethanol condition)

$$SD = \sqrt{\frac{\sum (x - \bar{x})^2}{n - 1}}$$

$$SD = \sqrt{\frac{(0.866 - 0.844)^2 + (1.245 - 0.844)^2 + (0.719 - 0.844)^2 + (0.612 - 0.844)^2 + (0.788 - 0.844)^2}{5 - 1}}$$

$$SD = \sqrt{\frac{0.231}{4}}$$

$$SD = 0.240$$

SAMPLE 'CHANGE' CALCULATION:

(trial 1, no ethanol condition)

$$\text{change} = \text{average}_{\text{post-induction trial 1}} - \text{average}_{\text{pre-induction trial 1}}$$

$$\text{change} = 1.289 - 0.844$$

$$\text{change} = 0.445 \text{ mV/ms}$$

SAMPLE VOLUME CALCULATION:

(60mM ethanol)

1) Molarity of 85% ethanol solution

known: density ethanol = 0.789g/mL = 789g/L, molecular weight ethanol = 46.07g/mol

$$85\% \text{ ethanol} = 850\text{mL ethanol in } 1\text{L} = 0.85\text{L}$$

$$0.85\text{L} \times 789\text{g/L} \times 1\text{g}/46.07\text{mol} = 14.56\text{M}$$

2) Volume needed to make 60mM ethanol ACSF

$$C_1V_1 = C_2V_2$$

$$C_1 = 14.56\text{M ethanol}$$

$$V_1 = ?$$

$$C_2 = 0.06\text{M ACSF}$$

$$V_2 = 0.5\text{L ACSF}$$

$$14.56\text{M} \times V_1 = 0.06\text{M} \times 0.5\text{L}$$

$$V_1 = \frac{0.06\text{M} \times 0.5\text{L}}{14.56\text{M}}$$

$$V_1 = 2.06\text{mL ethanol added to } 0.5\text{L ACSF to make } 60\text{mM ethanol}$$

SAMPLE T-TEST CALCULATION:

(t-test no ethanol condition, pre-induction vs. post-induction last 60 trials)

**N=60

pre- induction = Y	(Y - avgY)²	post- induction n = X	(X - avgX)²
0.844	0.011414909	1.289	0.001445732
1.058	0.011586928	1.355	0.000768536
1.146	0.037900992	1.441	0.013066162
0.827	0.01527002	1.232	0.009054252
0.903	0.002262562	1.395	0.004671803
0.860	0.008269308	1.415	0.007796802
1.028	0.006014126	1.190	0.018815154
1.010	0.003496857	1.247	0.006353893
1.231	0.078670022	1.393	0.004369838
0.942	8.38022E-05	1.279	0.002286695
0.964	0.00017381	1.301	0.000660428
0.792	0.025265298	1.368	0.001710924
0.972	0.00045246	1.377	0.002459167
0.986	0.001201739	1.425	0.009552131
0.801	0.022461821	1.338	0.000127736
1.063	0.012573037	1.275	0.002719606
0.955	2.02992E-05	1.230	0.0093973
1.003	0.002684426	1.410	0.006872944
0.912	0.001523829	1.167	0.02549473
0.788	0.026361056	1.288	0.001529266
0.998	0.002194134	1.351	0.000568495
0.941	9.65773E-05	1.337	0.000102412
0.928	0.00052064	1.211	0.013501406
1.081	0.016883343	1.274	0.00281183
0.936	0.000223957	1.429	0.01043955
0.897	0.002907668	1.236	0.008191556
1.096	0.021088544	1.492	0.027081649
1.020	0.004846087	1.232	0.008983125
1.144	0.037193521	1.420	0.008667297
0.927	0.000567558	1.252	0.005641556
0.841	0.012149676	1.544	0.047304386
0.995	0.001947458	1.209	0.013877936
1.010	0.003535277	1.357	0.000913571
0.988	0.001342737	1.338	0.000122913
0.963	0.000154834	1.374	0.00216409
0.870	0.006534427	1.321	3.14553E-05
0.849	0.010445521	1.395	0.004593417
1.038	0.007660285	1.248	0.006169656
0.882	0.004807286	1.331	1.32589E-05
0.783	0.028309601	1.214	0.012697742
0.949	4.92435E-06	1.375	0.002308992

0.964	0.000177934	1.354	0.000722312
0.961	9.76271E-05	1.195	0.017290367
0.981	0.000933691	1.351	0.000589633
0.968	0.000281235	1.389	0.003902903
0.819	0.017516204	1.283	0.001915141
0.885	0.004280942	1.138	0.03575812
0.873	0.006038664	1.198	0.016673931
1.019	0.004605447	1.381	0.002867736
1.019	0.004593573	1.298	0.000865039
1.170	0.047834426	1.420	0.008567884
0.909	0.001712576	1.369	0.001753783
1.004	0.002845209	1.265	0.00385834
0.921	0.000867732	1.251	0.005760027
0.775	0.031080477	1.267	0.003603752
0.892	0.003424504	1.463	0.018487022
1.011	0.003594584	1.435	0.011574333
0.938	0.000173033	1.381	0.002921955
0.974	0.000558925	1.482	0.02402373
0.748	0.041022634	1.343	0.000260444
avgY =		avgX =	
0.951		1.327	
sumY =	sum((Y - avgY)²) =	sumX =	sum((X - avgX)²) =
57.051	0.602740773	79.619	0.466735843
s²_x = sum((Y - avgY)²)/N-1	s²_y = sum((X - avgX)²)/N-1		
0.010215945	0.007910777		

$$t = \frac{\text{avgX} - \text{avgY}}{\sqrt{\frac{s_x^2}{N} + \frac{s_y^2}{N}}}$$

$$t = \frac{1.327 - 0.951}{\sqrt{\frac{0.008 + 0.010}{60}}}$$

$$t = \frac{0.376}{0.0173}$$

df	Upper tail probability <i>p</i>							
	.05	.025	.02	.01	.005	.0025	.001	.0005
27	1.703	2.052	2.158	2.473	2.771	3.057	3.421	3.690
28	1.701	2.048	2.154	2.467	2.763	3.047	3.408	3.674
29	1.699	2.045	2.150	2.462	2.756	3.038	3.396	3.659
30	1.697	2.042	2.147	2.457	2.750	3.030	3.385	3.646
40	1.684	2.021	2.123	2.423	2.704	2.971	3.307	3.551
50	1.676	2.009	2.109	2.403	2.678	2.937	3.261	3.496
60	1.671	2.000	2.099	2.390	2.660	2.915	3.232	3.460
80	1.664	1.990	2.088	2.374	2.639	2.887	3.195	3.416
100	1.660	1.984	2.081	2.364	2.626	2.871	3.174	3.390
1000	1.646	1.962	2.056	2.330	2.581	2.813	3.098	3.300

t = 21.734 > 2.403, and t is significant, p<0.05

Bonferroni correction:

alpha level = desired alpha/number tests

alpha level = 0.05/4 ≈ 0.01

RAW DATA:

CONTROL PRE-INDUCTION																		
		SUBJECT 1			SUBJECT 2			SUBJECT 3			SUBJECT 4			SUBJECT 5				
trial	time-ms	rise	run	slope	rise	run	slope	rise	run	slope	rise	run	slope	rise	run	slope	average slope	std dev
1	5014	0.300	0.347	0.866	0.463	0.372	1.245	0.277	0.385	0.719	0.228	0.372	0.612	0.296	0.380	0.778	0.844	0.242
2	10028	0.487	0.346	1.406	0.237	0.349	0.679	0.479	0.434	1.104	0.462	0.451	1.026	0.479	0.445	1.078	1.058	0.259
3	15042	0.449	0.323	1.392	0.289	0.348	0.830	0.366	0.499	0.732	0.408	0.303	1.348	0.454	0.319	1.426	1.146	0.336
4	20056	0.435	0.414	1.050	0.333	0.441	0.756	0.430	0.468	0.919	0.368	0.495	0.744	0.237	0.355	0.668	0.827	0.155
5	25070	0.478	0.413	1.159	0.262	0.468	0.560	0.299	0.314	0.953	0.305	0.475	0.643	0.419	0.349	1.201	0.903	0.292
6	30083	0.351	0.485	0.724	0.276	0.364	0.760	0.418	0.385	1.085	0.368	0.362	1.016	0.292	0.409	0.714	0.860	0.177
7	35097	0.404	0.343	1.179	0.463	0.333	1.391	0.353	0.426	0.829	0.467	0.479	0.974	0.328	0.425	0.770	1.028	0.256
8	40111	0.482	0.343	1.406	0.418	0.473	0.884	0.422	0.457	0.923	0.312	0.333	0.936	0.276	0.306	0.901	1.010	0.222
9	45125	0.437	0.336	1.299	0.457	0.388	1.179	0.472	0.345	1.367	0.357	0.312	1.143	0.462	0.395	1.169	1.231	0.097
10	50139	0.472	0.445	1.061	0.390	0.315	1.237	0.357	0.487	0.732	0.307	0.486	0.632	0.440	0.420	1.046	0.942	0.251
11	55153	0.369	0.302	1.222	0.252	0.475	0.531	0.317	0.309	1.024	0.437	0.438	0.996	0.431	0.412	1.047	0.964	0.258
12	60167	0.350	0.480	0.729	0.297	0.453	0.656	0.392	0.366	1.071	0.308	0.361	0.852	0.305	0.468	0.651	0.792	0.176
13	65181	0.457	0.409	1.118	0.399	0.443	0.901	0.412	0.388	1.060	0.396	0.413	0.959	0.345	0.420	0.822	0.972	0.119
14	70195	0.463	0.326	1.418	0.381	0.336	1.135	0.320	0.396	0.808	0.377	0.456	0.826	0.237	0.320	0.741	0.986	0.286
15	75209	0.393	0.421	0.934	0.361	0.480	0.752	0.462	0.468	0.988	0.315	0.443	0.711	0.286	0.462	0.620	0.801	0.155
16	80222	0.466	0.301	1.547	0.324	0.324	1.001	0.320	0.423	0.756	0.413	0.321	1.287	0.334	0.462	0.724	1.063	0.353
17	85236	0.486	0.378	1.287	0.358	0.455	0.786	0.273	0.413	0.662	0.451	0.411	1.096	0.322	0.341	0.945	0.955	0.247
18	90250	0.327	0.349	0.937	0.443	0.391	1.132	0.461	0.459	1.006	0.486	0.378	1.286	0.249	0.381	0.653	1.003	0.236
19	95264	0.477	0.442	1.078	0.385	0.454	0.850	0.277	0.389	0.711	0.346	0.461	0.752	0.402	0.344	1.168	0.912	0.202
20	100278	0.403	0.450	0.896	0.357	0.444	0.804	0.313	0.432	0.724	0.346	0.448	0.774	0.359	0.482	0.745	0.788	0.067
21	105292	0.436	0.461	0.945	0.415	0.484	0.857	0.460	0.436	1.056	0.451	0.486	0.929	0.386	0.322	1.200	0.998	0.134
22	110306	0.438	0.347	1.262	0.252	0.332	0.758	0.346	0.304	1.137	0.330	0.412	0.799	0.320	0.427	0.749	0.941	0.240
23	115320	0.432	0.310	1.395	0.337	0.400	0.841	0.304	0.353	0.859	0.373	0.499	0.747	0.356	0.446	0.797	0.928	0.265
24	120334	0.450	0.390	1.153	0.379	0.432	0.879	0.486	0.423	1.150	0.473	0.341	1.389	0.349	0.418	0.834	1.081	0.227
25	125348	0.346	0.475	0.728	0.362	0.331	1.095	0.423	0.474	0.891	0.294	0.393	0.748	0.406	0.334	1.218	0.936	0.215
26	130361	0.370	0.339	1.092	0.405	0.406	0.999	0.334	0.441	0.757	0.352	0.472	0.747	0.318	0.358	0.889	0.897	0.151
27	135375	0.396	0.400	0.991	0.240	0.363	0.660	0.449	0.335	1.339	0.469	0.319	1.471	0.465	0.456	1.019	1.096	0.319
28	140389	0.318	0.475	0.669	0.415	0.421	0.986	0.457	0.306	1.494	0.375	0.401	0.935	0.311	0.305	1.018	1.020	0.298
29	145403	0.365	0.433	0.843	0.426	0.363	1.172	0.395	0.323	1.223	0.437	0.344	1.272	0.457	0.378	1.209	1.144	0.172
30	150417	0.362	0.442	0.819	0.321	0.371	0.866	0.274	0.355	0.772	0.469	0.392	1.196	0.371	0.378	0.982	0.927	0.170
31	155431	0.305	0.385	0.793	0.356	0.448	0.795	0.258	0.301	0.857	0.429	0.472	0.908	0.342	0.402	0.850	0.841	0.048
32	160445	0.382	0.322	1.188	0.428	0.300	1.428	0.301	0.375	0.802	0.311	0.465	0.668	0.327	0.368	0.889	0.995	0.308
33	165459	0.305	0.327	0.934	0.254	0.330	0.769	0.326	0.330	0.989	0.447	0.317	1.412	0.434	0.458	0.948	1.010	0.240
34	170473	0.306	0.364	0.841	0.330	0.380	0.867	0.399	0.418	0.953	0.455	0.303	1.504	0.360	0.466	0.772	0.988	0.296
35	175487	0.444	0.319	1.392	0.290	0.449	0.647	0.259	0.472	0.549	0.476	0.332	1.433	0.334	0.420	0.796	0.963	0.420
36	180500	0.467	0.432	1.082	0.237	0.497	0.478	0.428	0.476	0.900	0.433	0.443	0.977	0.377	0.412	0.914	0.870	0.231
37	185514	0.412	0.458	0.901	0.443	0.430	1.030	0.396	0.495	0.800	0.369	0.445	0.829	0.315	0.460	0.683	0.849	0.128
38	190528	0.427	0.371	1.151	0.431	0.468	0.921	0.326	0.348	0.939	0.479	0.376	1.274	0.298	0.328	0.907	1.038	0.165

39	195542	0.371	0.457	0.812	0.299	0.444	0.674	0.413	0.356	1.158	0.488	0.413	1.181	0.241	0.413	0.583	0.882	0.275
40	200556	0.398	0.399	0.997	0.283	0.376	0.754	0.249	0.487	0.512	0.336	0.473	0.710	0.461	0.490	0.940	0.783	0.194
41	205570	0.352	0.324	1.085	0.390	0.322	1.212	0.263	0.438	0.601	0.446	0.491	0.907	0.440	0.469	0.938	0.949	0.229
42	210584	0.346	0.349	0.990	0.386	0.303	1.274	0.276	0.433	0.637	0.435	0.483	0.901	0.378	0.370	1.020	0.964	0.230
43	215598	0.367	0.310	1.185	0.349	0.378	0.923	0.409	0.320	1.279	0.400	0.426	0.939	0.239	0.499	0.478	0.961	0.311
44	220612	0.337	0.468	0.719	0.272	0.396	0.685	0.364	0.419	0.869	0.462	0.318	1.451	0.460	0.389	1.183	0.981	0.328
45	225626	0.482	0.481	1.004	0.295	0.364	0.810	0.389	0.337	1.154	0.419	0.461	0.909	0.301	0.314	0.961	0.968	0.127
46	230639	0.327	0.482	0.679	0.374	0.441	0.847	0.300	0.493	0.608	0.331	0.436	0.760	0.362	0.302	1.199	0.819	0.231
47	235653	0.429	0.377	1.137	0.424	0.459	0.922	0.374	0.371	1.008	0.352	0.492	0.716	0.230	0.357	0.644	0.885	0.204
48	240667	0.326	0.301	1.085	0.271	0.476	0.569	0.311	0.336	0.927	0.384	0.361	1.065	0.355	0.492	0.721	0.873	0.223
49	245681	0.479	0.367	1.304	0.442	0.373	1.186	0.429	0.390	1.099	0.342	0.473	0.724	0.323	0.415	0.779	1.019	0.255
50	250695	0.472	0.398	1.187	0.307	0.421	0.730	0.482	0.443	1.087	0.417	0.330	1.265	0.333	0.404	0.824	1.019	0.232
51	255709	0.405	0.416	0.972	0.396	0.315	1.254	0.392	0.441	0.890	0.468	0.357	1.308	0.440	0.309	1.423	1.170	0.228
52	260723	0.471	0.488	0.964	0.398	0.360	1.105	0.353	0.460	0.768	0.463	0.496	0.934	0.286	0.368	0.777	0.909	0.141
53	265737	0.318	0.386	0.823	0.461	0.347	1.330	0.383	0.406	0.943	0.479	0.407	1.176	0.245	0.328	0.748	1.004	0.244
54	270751	0.358	0.322	1.112	0.311	0.349	0.893	0.295	0.335	0.879	0.367	0.402	0.914	0.274	0.339	0.810	0.921	0.113
55	275765	0.354	0.350	1.011	0.366	0.498	0.736	0.260	0.388	0.671	0.309	0.477	0.647	0.396	0.491	0.808	0.775	0.146
56	280778	0.474	0.446	1.062	0.242	0.364	0.665	0.437	0.459	0.951	0.342	0.326	1.047	0.299	0.406	0.736	0.892	0.182
57	285792	0.368	0.309	1.192	0.411	0.464	0.885	0.411	0.396	1.036	0.445	0.418	1.064	0.289	0.330	0.877	1.011	0.132
58	290806	0.419	0.394	1.064	0.338	0.469	0.722	0.471	0.445	1.060	0.441	0.487	0.905	0.330	0.352	0.937	0.938	0.140
59	295820	0.381	0.490	0.777	0.424	0.406	1.045	0.471	0.316	1.490	0.441	0.416	1.060	0.235	0.470	0.500	0.974	0.368
60	300834	0.320	0.492	0.650	0.330	0.444	0.744	0.335	0.433	0.775	0.294	0.480	0.612	0.429	0.446	0.961	0.748	0.136

POST-INDUCTION																		
1	305848	0.653	0.333	1.961	0.946	0.308	3.074	0.679	0.366	1.855	0.692	0.433	1.596	0.667	0.409	1.630	2.023	0.607
2	310862	0.679	0.433	1.567	0.824	0.323	2.551	0.943	0.348	2.709	1.047	0.375	2.790	0.721	0.469	1.540	2.231	0.625
3	315876	0.807	0.426	1.895	1.014	0.459	2.211	0.936	0.409	2.288	0.783	0.432	1.812	0.675	0.404	1.670	1.975	0.265
4	320890	0.689	0.415	1.662	0.659	0.364	1.811	0.803	0.423	1.900	0.700	0.491	1.425	0.818	0.304	2.686	1.897	0.476
5	325904	0.697	0.377	1.850	0.872	0.365	2.391	0.868	0.365	2.376	0.963	0.434	2.222	0.975	0.435	2.243	2.216	0.219
6	330917	0.987	0.342	2.887	0.954	0.356	2.679	0.934	0.492	1.899	0.760	0.401	1.896	0.910	0.460	1.979	2.268	0.477
7	335931	0.695	0.359	1.934	0.981	0.394	2.488	0.647	0.395	1.638	0.776	0.486	1.596	0.972	0.373	2.609	2.053	0.473
8	340945	0.641	0.473	1.356	0.629	0.367	1.714	0.565	0.364	1.553	0.641	0.421	1.524	0.588	0.368	1.597	1.549	0.130
9	345959	0.571	0.404	1.416	0.611	0.439	1.391	0.554	0.334	1.658	0.654	0.302	2.165	0.643	0.462	1.390	1.604	0.333
10	350973	0.636	0.486	1.308	0.621	0.459	1.353	0.629	0.338	1.861	0.651	0.320	2.036	0.576	0.340	1.696	1.651	0.316
11	355987	0.638	0.417	1.531	0.595	0.306	1.945	0.590	0.411	1.435	0.583	0.470	1.243	0.554	0.325	1.702	1.571	0.267
12	361001	0.576	0.429	1.343	0.597	0.400	1.491	0.587	0.498	1.179	0.640	0.448	1.429	0.562	0.364	1.544	1.397	0.143
13	366015	0.648	0.355	1.828	0.577	0.376	1.536	0.551	0.450	1.222	0.632	0.379	1.670	0.642	0.446	1.440	1.539	0.229
14	371029	0.638	0.451	1.415	0.595	0.477	1.247	0.629	0.420	1.498	0.615	0.383	1.605	0.619	0.450	1.376	1.428	0.134
15	376043	0.605	0.444	1.361	0.586	0.382	1.536	0.637	0.446	1.430	0.627	0.399	1.572	0.646	0.449	1.437	1.467	0.086
16	381056	0.618	0.462	1.336	0.591	0.399	1.481	0.638	0.422	1.510	0.652	0.445	1.464	0.572	0.358	1.598	1.478	0.095
17	386070	0.620	0.414	1.498	0.613	0.305	2.012	0.617	0.301	2.052	0.643	0.444	1.450	0.560	0.361	1.553	1.713	0.294
18	391084	0.604	0.376	1.607	0.611	0.361	1.689	0.644	0.455	1.415	0.613	0.455	1.350	0.559	0.354	1.579	1.528	0.141
19	396098	0.626	0.425	1.474	0.612	0.475	1.289	0.580	0.468	1.240	0.626	0.427	1.466	0.640	0.381	1.681	1.430	0.175
20	401112	0.646	0.478	1.351	0.596	0.496	1.202	0.596	0.423	1.408	0.633	0.446	1.420	0.578	0.346	1.671	1.411	0.169
21	406126	0.594	0.400	1.484	0.589	0.459	1.281	0.615	0.305	2.017	0.651	0.366	1.780	0.606	0.417	1.454	1.603	0.293

22	411140	0.631	0.390	1.618	0.571	0.443	1.290	0.610	0.361	1.690	0.650	0.422	1.540	0.574	0.451	1.273	1.482	0.191
23	416154	0.621	0.472	1.316	0.625	0.473	1.321	0.640	0.387	1.652	0.629	0.494	1.273	0.598	0.378	1.584	1.429	0.175
24	421168	0.641	0.353	1.817	0.612	0.492	1.244	0.572	0.439	1.303	0.658	0.453	1.451	0.623	0.457	1.363	1.436	0.227
25	426182	0.625	0.403	1.548	0.561	0.302	1.853	0.576	0.379	1.520	0.637	0.428	1.488	0.628	0.304	2.066	1.695	0.254
26	431195	0.589	0.498	1.182	0.607	0.319	1.903	0.600	0.301	1.995	0.615	0.449	1.370	0.538	0.410	1.311	1.552	0.370
27	436209	0.577	0.442	1.305	0.543	0.314	1.728	0.543	0.416	1.305	0.583	0.384	1.518	0.609	0.417	1.460	1.463	0.175
28	441223	0.597	0.439	1.359	0.593	0.455	1.304	0.606	0.302	2.006	0.647	0.316	2.049	0.620	0.341	1.819	1.707	0.354
29	446237	0.629	0.396	1.591	0.579	0.365	1.586	0.613	0.395	1.553	0.586	0.379	1.547	0.567	0.334	1.699	1.595	0.061
30	451251	0.569	0.323	1.764	0.544	0.340	1.601	0.578	0.417	1.386	0.624	0.312	2.000	0.568	0.449	1.267	1.604	0.293
31	456265	0.576	0.376	1.530	0.576	0.472	1.221	0.622	0.351	1.774	0.634	0.473	1.340	0.588	0.321	1.832	1.539	0.265
32	461279	0.597	0.340	1.756	0.576	0.431	1.336	0.568	0.311	1.827	0.580	0.373	1.554	0.572	0.317	1.807	1.656	0.209
33	466293	0.607	0.370	1.640	0.592	0.410	1.446	0.624	0.344	1.812	0.612	0.390	1.568	0.606	0.336	1.806	1.655	0.157
34	471307	0.604	0.317	1.903	0.626	0.458	1.367	0.557	0.342	1.629	0.583	0.356	1.636	0.634	0.394	1.608	1.629	0.190
35	476321	0.630	0.468	1.346	0.559	0.410	1.362	0.582	0.372	1.566	0.630	0.421	1.496	0.571	0.481	1.187	1.391	0.147
36	481334	0.612	0.427	1.433	0.607	0.386	1.571	0.559	0.379	1.475	0.603	0.321	1.877	0.604	0.354	1.706	1.612	0.181
37	486348	0.583	0.355	1.641	0.552	0.461	1.196	0.560	0.460	1.217	0.602	0.379	1.589	0.628	0.458	1.371	1.403	0.206
38	491362	0.593	0.409	1.447	0.547	0.497	1.102	0.537	0.420	1.276	0.637	0.490	1.300	0.598	0.488	1.226	1.270	0.125
39	496376	0.614	0.324	1.898	0.566	0.390	1.452	0.577	0.360	1.602	0.578	0.403	1.434	0.537	0.403	1.332	1.544	0.220
40	501390	0.573	0.481	1.191	0.600	0.444	1.351	0.586	0.437	1.340	0.622	0.393	1.584	0.565	0.478	1.182	1.329	0.163
41	506404	0.590	0.469	1.258	0.579	0.466	1.241	0.565	0.485	1.166	0.601	0.361	1.666	0.575	0.473	1.216	1.309	0.202
42	511418	0.598	0.425	1.407	0.575	0.459	1.253	0.555	0.467	1.189	0.640	0.444	1.440	0.564	0.363	1.556	1.369	0.148
43	516432	0.601	0.444	1.352	0.556	0.338	1.644	0.583	0.352	1.655	0.588	0.428	1.372	0.606	0.309	1.962	1.597	0.250
44	521446	0.611	0.383	1.595	0.600	0.465	1.289	0.584	0.303	1.931	0.583	0.426	1.368	0.631	0.459	1.377	1.512	0.260
45	526460	0.629	0.436	1.441	0.567	0.414	1.369	0.590	0.479	1.231	0.621	0.424	1.462	0.605	0.369	1.639	1.428	0.148
46	531473	0.587	0.335	1.751	0.595	0.411	1.449	0.554	0.393	1.410	0.582	0.417	1.396	0.592	0.323	1.835	1.568	0.209
47	536487	0.601	0.332	1.807	0.553	0.323	1.709	0.561	0.324	1.732	0.630	0.387	1.626	0.578	0.441	1.312	1.637	0.193
48	541501	0.582	0.338	1.722	0.549	0.379	1.447	0.581	0.391	1.487	0.636	0.438	1.450	0.558	0.432	1.292	1.480	0.155
49	546515	0.627	0.310	2.024	0.580	0.425	1.363	0.552	0.306	1.802	0.603	0.316	1.910	0.598	0.338	1.772	1.774	0.250
50	551529	0.622	0.314	1.984	0.572	0.413	1.384	0.532	0.325	1.635	0.618	0.318	1.945	0.576	0.307	1.879	1.766	0.253
51	556543	0.584	0.471	1.239	0.554	0.479	1.157	0.548	0.451	1.214	0.564	0.346	1.629	0.575	0.432	1.329	1.314	0.187
52	561557	0.551	0.303	1.817	0.548	0.473	1.159	0.615	0.389	1.583	0.597	0.424	1.408	0.558	0.494	1.130	1.419	0.290
53	566571	0.609	0.450	1.353	0.560	0.303	1.851	0.593	0.446	1.328	0.597	0.383	1.559	0.535	0.372	1.439	1.506	0.213
54	571585	0.603	0.358	1.684	0.557	0.339	1.644	0.535	0.340	1.575	0.590	0.334	1.764	0.555	0.360	1.540	1.641	0.089
55	576599	0.555	0.414	1.341	0.525	0.451	1.164	0.530	0.481	1.102	0.529	0.303	1.748	0.554	0.409	1.355	1.342	0.252
56	581612	0.604	0.313	1.927	0.559	0.327	1.710	0.611	0.365	1.675	0.612	0.357	1.715	0.583	0.457	1.274	1.660	0.238
57	586626	0.595	0.426	1.396	0.561	0.422	1.331	0.604	0.305	1.982	0.599	0.425	1.409	0.588	0.467	1.259	1.475	0.289
58	591640	0.565	0.467	1.210	0.612	0.429	1.427	0.544	0.325	1.674	0.567	0.330	1.714	0.553	0.495	1.117	1.428	0.268
59	596654	0.545	0.397	1.370	0.480	0.339	1.414	0.500	0.356	1.403	0.553	0.376	1.469	0.574	0.361	1.589	1.449	0.086
60	601668	0.573	0.300	1.908	0.590	0.370	1.592	0.616	0.403	1.528	0.618	0.461	1.339	0.617	0.408	1.512	1.576	0.208
61	606682	0.621	0.429	1.447	0.587	0.488	1.205	0.538	0.454	1.185	0.568	0.476	1.194	0.616	0.436	1.413	1.289	0.130
62	611696	0.584	0.451	1.295	0.605	0.458	1.320	0.615	0.447	1.374	0.594	0.417	1.423	0.627	0.461	1.361	1.355	0.050
63	616710	0.574	0.332	1.729	0.520	0.488	1.064	0.529	0.446	1.185	0.524	0.321	1.633	0.575	0.361	1.596	1.441	0.296
64	621724	0.491	0.486	1.010	0.502	0.387	1.297	0.503	0.481	1.045	0.515	0.470	1.097	0.574	0.335	1.711	1.232	0.290
65	626738	0.533	0.412	1.293	0.521	0.333	1.562	0.492	0.317	1.550	0.545	0.420	1.299	0.495	0.389	1.273	1.395	0.147

66	631751	0.509	0.317	1.603	0.544	0.422	1.288	0.503	0.355	1.417	0.498	0.363	1.371	0.525	0.376	1.398	1.415	0.116
67	636765	0.496	0.432	1.148	0.562	0.439	1.281	0.548	0.480	1.141	0.526	0.441	1.193	0.493	0.416	1.187	1.190	0.056
68	641779	0.551	0.387	1.425	0.487	0.408	1.193	0.521	0.460	1.134	0.550	0.411	1.339	0.548	0.479	1.145	1.247	0.129
69	646793	0.510	0.370	1.379	0.507	0.329	1.544	0.539	0.381	1.413	0.550	0.412	1.335	0.507	0.392	1.295	1.393	0.095
70	651807	0.508	0.487	1.044	0.555	0.334	1.664	0.575	0.485	1.185	0.539	0.433	1.244	0.553	0.439	1.259	1.279	0.231
71	656821	0.547	0.432	1.266	0.514	0.400	1.284	0.552	0.474	1.165	0.547	0.325	1.682	0.545	0.492	1.109	1.301	0.225
72	661835	0.493	0.372	1.327	0.531	0.386	1.376	0.564	0.476	1.186	0.504	0.421	1.197	0.566	0.322	1.756	1.368	0.231
73	666849	0.511	0.433	1.180	0.545	0.325	1.675	0.575	0.372	1.547	0.532	0.493	1.078	0.497	0.355	1.402	1.377	0.248
74	671863	0.512	0.443	1.158	0.475	0.339	1.403	0.559	0.338	1.657	0.519	0.301	1.727	0.514	0.436	1.178	1.425	0.264
75	676877	0.526	0.393	1.339	0.484	0.336	1.442	0.559	0.480	1.165	0.526	0.471	1.117	0.547	0.336	1.628	1.338	0.209
76	681890	0.520	0.320	1.625	0.476	0.481	0.991	0.544	0.488	1.115	0.496	0.397	1.250	0.568	0.408	1.394	1.275	0.247
77	686904	0.558	0.377	1.479	0.477	0.420	1.136	0.548	0.425	1.292	0.509	0.499	1.022	0.483	0.395	1.222	1.230	0.172
78	691918	0.537	0.309	1.738	0.541	0.313	1.729	0.501	0.409	1.225	0.558	0.428	1.305	0.508	0.483	1.052	1.410	0.310
79	696932	0.540	0.413	1.307	0.543	0.392	1.384	0.549	0.495	1.109	0.498	0.485	1.027	0.485	0.481	1.010	1.167	0.169
80	701946	0.571	0.430	1.329	0.506	0.478	1.057	0.551	0.470	1.171	0.529	0.410	1.292	0.581	0.366	1.590	1.288	0.200
81	706960	0.574	0.444	1.294	0.556	0.345	1.610	0.558	0.487	1.147	0.544	0.374	1.457	0.482	0.387	1.247	1.351	0.183
82	711974	0.523	0.391	1.336	0.522	0.403	1.295	0.559	0.413	1.353	0.564	0.335	1.684	0.491	0.483	1.017	1.337	0.237
83	716988	0.531	0.471	1.128	0.507	0.422	1.202	0.573	0.471	1.215	0.537	0.427	1.257	0.522	0.417	1.251	1.211	0.052
84	722002	0.497	0.405	1.227	0.521	0.461	1.130	0.570	0.369	1.546	0.501	0.430	1.164	0.506	0.388	1.302	1.274	0.166
85	727016	0.506	0.362	1.396	0.485	0.372	1.305	0.518	0.424	1.222	0.567	0.368	1.540	0.543	0.323	1.682	1.429	0.184
86	732029	0.516	0.424	1.216	0.559	0.498	1.122	0.539	0.391	1.379	0.540	0.457	1.181	0.560	0.436	1.284	1.236	0.099
87	737043	0.534	0.328	1.627	0.480	0.346	1.388	0.490	0.353	1.390	0.520	0.459	1.133	0.579	0.302	1.919	1.492	0.296
88	742057	0.520	0.422	1.231	0.492	0.326	1.512	0.488	0.447	1.092	0.546	0.451	1.212	0.519	0.466	1.114	1.232	0.167
89	747071	0.564	0.325	1.734	0.539	0.453	1.191	0.489	0.325	1.505	0.521	0.445	1.172	0.553	0.369	1.498	1.420	0.238
90	752085	0.524	0.359	1.461	0.561	0.412	1.362	0.502	0.434	1.156	0.523	0.469	1.115	0.505	0.433	1.166	1.252	0.151
91	757099	0.505	0.363	1.391	0.562	0.429	1.309	0.554	0.330	1.680	0.543	0.329	1.651	0.561	0.332	1.691	1.544	0.180
92	762113	0.549	0.400	1.374	0.485	0.440	1.103	0.517	0.448	1.154	0.502	0.390	1.287	0.537	0.476	1.129	1.209	0.116
93	767127	0.547	0.404	1.356	0.479	0.418	1.147	0.544	0.419	1.299	0.538	0.399	1.350	0.562	0.344	1.635	1.357	0.176
94	772141	0.511	0.309	1.656	0.504	0.440	1.145	0.490	0.433	1.130	0.497	0.431	1.153	0.576	0.358	1.606	1.338	0.268
95	777155	0.564	0.386	1.462	0.553	0.448	1.234	0.506	0.308	1.645	0.550	0.408	1.351	0.578	0.492	1.175	1.374	0.188
96	782168	0.537	0.443	1.212	0.481	0.432	1.113	0.571	0.350	1.632	0.507	0.498	1.018	0.548	0.336	1.632	1.321	0.292
97	787182	0.569	0.407	1.396	0.527	0.314	1.679	0.564	0.480	1.174	0.567	0.374	1.515	0.518	0.428	1.209	1.395	0.211
98	792196	0.528	0.392	1.346	0.508	0.449	1.132	0.510	0.456	1.119	0.548	0.450	1.219	0.497	0.348	1.427	1.248	0.135
99	797210	0.546	0.337	1.621	0.492	0.405	1.214	0.497	0.472	1.052	0.527	0.397	1.325	0.487	0.337	1.442	1.331	0.217
100	802224	0.564	0.442	1.275	0.525	0.463	1.135	0.515	0.490	1.050	0.515	0.425	1.213	0.533	0.381	1.399	1.214	0.133
101	807238	0.570	0.416	1.371	0.493	0.323	1.528	0.556	0.329	1.692	0.501	0.426	1.175	0.486	0.438	1.109	1.375	0.242
102	812252	0.550	0.402	1.370	0.502	0.356	1.410	0.564	0.397	1.422	0.564	0.458	1.232	0.534	0.400	1.334	1.354	0.077
103	817266	0.567	0.458	1.237	0.562	0.479	1.173	0.576	0.445	1.295	0.508	0.447	1.135	0.510	0.448	1.138	1.195	0.069
104	822280	0.542	0.328	1.653	0.549	0.413	1.329	0.578	0.497	1.163	0.554	0.354	1.562	0.491	0.468	1.048	1.351	0.256
105	827294	0.527	0.303	1.740	0.497	0.471	1.056	0.512	0.364	1.407	0.522	0.425	1.228	0.577	0.381	1.516	1.389	0.263
106	832307	0.494	0.460	1.074	0.530	0.467	1.136	0.542	0.324	1.675	0.529	0.487	1.086	0.487	0.337	1.445	1.283	0.267
107	837321	0.551	0.408	1.351	0.554	0.478	1.158	0.485	0.464	1.044	0.503	0.498	1.010	0.495	0.439	1.127	1.138	0.133
108	842335	0.555	0.433	1.281	0.541	0.441	1.226	0.535	0.432	1.239	0.502	0.422	1.190	0.501	0.475	1.054	1.198	0.087
109	847349	0.501	0.329	1.523	0.517	0.487	1.062	0.551	0.349	1.576	0.502	0.480	1.045	0.531	0.313	1.696	1.381	0.305

110	852363	0.501	0.402	1.246	0.494	0.349	1.418	0.576	0.487	1.181	0.555	0.384	1.445	0.550	0.459	1.197	1.298	0.125
111	857377	0.532	0.336	1.583	0.563	0.453	1.243	0.557	0.390	1.427	0.568	0.371	1.531	0.577	0.440	1.313	1.420	0.143
112	862391	0.542	0.347	1.561	0.490	0.410	1.195	0.504	0.309	1.629	0.564	0.458	1.231	0.506	0.412	1.228	1.369	0.209
113	867405	0.536	0.432	1.240	0.537	0.441	1.218	0.526	0.436	1.205	0.530	0.366	1.447	0.536	0.442	1.214	1.265	0.103
114	872419	0.541	0.444	1.219	0.488	0.328	1.488	0.516	0.431	1.195	0.502	0.398	1.261	0.529	0.484	1.093	1.251	0.146
115	877433	0.524	0.464	1.129	0.482	0.402	1.199	0.487	0.353	1.381	0.508	0.346	1.467	0.534	0.461	1.158	1.267	0.149
116	882446	0.543	0.441	1.231	0.545	0.362	1.504	0.513	0.357	1.436	0.538	0.317	1.696	0.555	0.383	1.447	1.463	0.166
117	887460	0.536	0.465	1.153	0.480	0.324	1.479	0.544	0.482	1.128	0.555	0.317	1.753	0.550	0.332	1.659	1.435	0.286
118	892474	0.558	0.325	1.719	0.511	0.490	1.041	0.574	0.355	1.615	0.520	0.432	1.203	0.502	0.378	1.327	1.381	0.282
119	897488	0.493	0.439	1.123	0.553	0.316	1.750	0.502	0.411	1.222	0.554	0.323	1.714	0.511	0.319	1.601	1.482	0.290
120	902502	0.559	0.394	1.419	0.515	0.500	1.031	0.532	0.398	1.339	0.508	0.313	1.624	0.567	0.436	1.302	1.343	0.214

20Mm ETHANOL

PRE-INDUCTION

trial	time	rise	run	slope	rise	run	slope	rise	run	slope	average slope	std dev
1	5014	0.353	0.443	0.798	0.476	0.309	1.540	0.484	0.483	1.003	1.113	0.383
2	10028	0.459	0.385	1.193	0.394	0.313	1.260	0.419	0.426	0.985	1.146	0.143
3	15042	0.391	0.313	1.251	0.472	0.335	1.408	0.387	0.345	1.121	1.260	0.144
4	20056	0.386	0.471	0.819	0.479	0.432	1.108	0.394	0.474	0.831	0.919	0.164
5	25070	0.383	0.401	0.956	0.364	0.373	0.977	0.411	0.405	1.016	0.983	0.031
6	30083	0.384	0.397	0.967	0.456	0.340	1.339	0.480	0.423	1.135	1.147	0.186
7	35097	0.335	0.365	0.917	0.378	0.456	0.829	0.330	0.448	0.736	0.827	0.091
8	40111	0.374	0.416	0.897	0.492	0.481	1.023	0.426	0.394	1.084	1.001	0.095
9	45125	0.462	0.328	1.407	0.369	0.426	0.866	0.352	0.363	0.970	1.081	0.287
10	50139	0.324	0.321	1.009	0.370	0.483	0.766	0.482	0.344	1.403	1.059	0.322
11	55153	0.338	0.372	0.909	0.459	0.421	1.090	0.384	0.424	0.905	0.968	0.106
12	60167	0.451	0.439	1.027	0.321	0.492	0.652	0.444	0.404	1.100	0.926	0.240
13	65181	0.329	0.335	0.980	0.278	0.418	0.665	0.391	0.385	1.015	0.887	0.193
14	70195	0.377	0.316	1.193	0.499	0.416	1.200	0.331	0.380	0.872	1.088	0.188
15	75209	0.409	0.479	0.854	0.359	0.341	1.053	0.335	0.472	0.710	0.873	0.172
16	80222	0.473	0.324	1.462	0.442	0.465	0.951	0.461	0.450	1.023	1.146	0.276
17	85236	0.460	0.376	1.222	0.321	0.410	0.783	0.374	0.337	1.110	1.038	0.228
18	90250	0.388	0.489	0.792	0.446	0.384	1.161	0.472	0.454	1.038	0.997	0.188
19	95264	0.398	0.352	1.129	0.387	0.430	0.899	0.381	0.346	1.099	1.043	0.125
20	100278	0.396	0.375	1.056	0.395	0.409	0.968	0.354	0.356	0.996	1.006	0.045
21	105292	0.452	0.442	1.021	0.375	0.421	0.891	0.444	0.380	1.170	1.027	0.140
22	110306	0.380	0.308	1.233	0.408	0.449	0.908	0.409	0.403	1.014	1.052	0.165
23	115320	0.462	0.463	0.998	0.400	0.439	0.913	0.452	0.383	1.179	1.030	0.136
24	120334	0.405	0.355	1.141	0.357	0.409	0.874	0.364	0.363	1.002	1.006	0.134
25	125348	0.417	0.487	0.857	0.455	0.415	1.096	0.335	0.339	0.989	0.981	0.120
26	130361	0.391	0.331	1.181	0.458	0.388	1.182	0.359	0.442	0.813	1.059	0.213
27	135375	0.368	0.461	0.798	0.253	0.384	0.658	0.340	0.393	0.865	0.774	0.105
28	140389	0.421	0.410	1.028	0.365	0.376	0.971	0.478	0.451	1.058	1.019	0.044
29	145403	0.315	0.324	0.973	0.474	0.347	1.364	0.376	0.462	0.815	1.051	0.283
30	150417	0.375	0.311	1.206	0.268	0.437	0.614	0.340	0.408	0.834	0.885	0.299

31	155431	0.422	0.334	1.265	0.473	0.335	1.413	0.366	0.500	0.731	1.136	0.358
32	160445	0.488	0.370	1.320	0.286	0.434	0.658	0.415	0.366	1.134	1.037	0.341
33	165459	0.299	0.472	0.634	0.466	0.331	1.407	0.352	0.428	0.822	0.954	0.403
34	170473	0.368	0.449	0.819	0.439	0.301	1.456	0.358	0.359	0.999	1.091	0.328
35	175487	0.463	0.303	1.531	0.306	0.338	0.907	0.467	0.412	1.132	1.190	0.316
36	180500	0.450	0.337	1.333	0.399	0.478	0.836	0.479	0.433	1.106	1.092	0.249
37	185514	0.340	0.437	0.780	0.370	0.484	0.763	0.412	0.402	1.026	0.856	0.147
38	190528	0.461	0.440	1.049	0.253	0.457	0.554	0.358	0.490	0.732	0.778	0.251
39	195542	0.370	0.413	0.895	0.426	0.350	1.218	0.484	0.322	1.503	1.205	0.304
40	200556	0.438	0.320	1.369	0.434	0.443	0.980	0.486	0.472	1.028	1.126	0.212
41	205570	0.433	0.476	0.909	0.477	0.383	1.243	0.387	0.303	1.278	1.144	0.204
42	210584	0.379	0.466	0.812	0.272	0.359	0.757	0.479	0.332	1.440	1.003	0.380
43	215598	0.319	0.444	0.718	0.458	0.488	0.939	0.470	0.485	0.969	0.875	0.137
44	220612	0.472	0.409	1.154	0.415	0.454	0.914	0.410	0.497	0.824	0.964	0.171
45	225626	0.475	0.437	1.086	0.360	0.358	1.004	0.478	0.460	1.039	1.043	0.041
46	230639	0.309	0.305	1.012	0.268	0.414	0.646	0.363	0.313	1.158	0.939	0.264
47	235653	0.452	0.306	1.480	0.396	0.306	1.294	0.478	0.445	1.074	1.283	0.203
48	240667	0.454	0.419	1.083	0.451	0.318	1.420	0.371	0.339	1.095	1.199	0.191
49	245681	0.402	0.303	1.327	0.352	0.369	0.953	0.388	0.412	0.943	1.074	0.219
50	250695	0.406	0.352	1.156	0.344	0.453	0.759	0.472	0.402	1.175	1.030	0.235
51	255709	0.405	0.369	1.095	0.431	0.458	0.940	0.451	0.445	1.013	1.016	0.077
52	260723	0.435	0.405	1.073	0.442	0.365	1.212	0.466	0.359	1.297	1.194	0.113
53	265737	0.347	0.331	1.047	0.449	0.374	1.202	0.381	0.316	1.204	1.151	0.090
54	270751	0.486	0.359	1.353	0.428	0.301	1.425	0.476	0.351	1.359	1.379	0.040
55	275765	0.491	0.430	1.141	0.275	0.443	0.619	0.434	0.457	0.951	0.904	0.264
56	280778	0.341	0.491	0.696	0.348	0.430	0.811	0.472	0.317	1.490	0.999	0.429
57	285792	0.480	0.365	1.313	0.332	0.432	0.767	0.396	0.484	0.819	0.966	0.302
58	290806	0.440	0.480	0.915	0.370	0.492	0.752	0.477	0.343	1.392	1.020	0.332
59	295820	0.357	0.428	0.834	0.257	0.361	0.712	0.427	0.408	1.048	0.864	0.170
60	300834	0.439	0.409	1.075	0.280	0.325	0.860	0.489	0.393	1.245	1.060	0.193

POST-INDUCTION												
1	305848	0.807	0.435	1.854	0.698	0.418	1.669	0.813	0.334	2.433	1.986	0.398
2	310862	0.678	0.360	1.884	0.796	0.363	2.192	0.758	0.416	1.821	1.965	0.198
3	315876	0.841	0.340	2.471	0.828	0.316	2.621	0.813	0.396	2.054	2.382	0.293
4	320890	0.668	0.464	1.440	0.721	0.504	1.430	1.263	0.395	3.196	2.022	1.017
5	325904	0.718	0.319	2.248	0.977	0.478	2.046	0.504	0.399	1.263	1.852	0.520
6	330917	0.826	0.366	2.259	0.758	0.321	2.360	0.709	0.335	2.114	2.244	0.124
7	335931	0.706	0.476	1.484	0.576	0.406	1.421	0.709	0.359	1.975	1.627	0.303
8	340945	0.746	0.497	1.501	0.590	0.361	1.636	0.651	0.374	1.740	1.626	0.120
9	345959	0.647	0.468	1.383	0.567	0.464	1.221	0.621	0.401	1.548	1.384	0.163
10	350973	0.547	0.429	1.277	0.556	0.423	1.315	0.595	0.309	1.925	1.506	0.363
11	355987	0.555	0.436	1.273	0.531	0.306	1.735	0.642	0.407	1.578	1.529	0.235
12	361001	0.497	0.360	1.380	0.607	0.347	1.749	0.513	0.443	1.156	1.428	0.300
13	366015	0.611	0.480	1.271	0.587	0.435	1.350	0.582	0.358	1.625	1.415	0.186

14	371029	0.615	0.386	1.594	0.587	0.335	1.752	0.504	0.406	1.242	1.529	0.261
15	376043	0.557	0.518	1.075	0.589	0.424	1.387	0.643	0.369	1.742	1.401	0.334
16	381056	0.594	0.390	1.526	0.524	0.474	1.106	0.645	0.459	1.407	1.346	0.216
17	386070	0.534	0.333	1.601	0.574	0.457	1.255	0.589	0.477	1.235	1.364	0.206
18	391084	0.493	0.474	1.040	0.519	0.455	1.141	0.549	0.397	1.385	1.189	0.177
19	396098	0.531	0.392	1.354	0.549	0.440	1.249	0.611	0.382	1.600	1.401	0.180
20	401112	0.536	0.463	1.158	0.549	0.336	1.631	0.534	0.473	1.129	1.306	0.282
21	406126	0.610	0.444	1.374	0.605	0.394	1.534	0.545	0.303	1.798	1.569	0.214
22	411140	0.607	0.380	1.600	0.617	0.395	1.560	0.544	0.354	1.537	1.566	0.032
23	416154	0.515	0.479	1.076	0.627	0.371	1.690	0.628	0.437	1.436	1.401	0.309
24	421168	0.624	0.321	1.945	0.544	0.427	1.275	0.594	0.499	1.191	1.470	0.413
25	426182	0.677	0.415	1.632	0.643	0.359	1.789	0.529	0.479	1.105	1.509	0.358
26	431195	0.491	0.485	1.012	0.634	0.518	1.224	0.552	0.320	1.727	1.321	0.367
27	436209	0.550	0.342	1.607	0.515	0.363	1.419	0.518	0.338	1.535	1.520	0.095
28	441223	0.631	0.424	1.487	0.617	0.340	1.818	0.517	0.492	1.052	1.452	0.384
29	446237	0.571	0.472	1.210	0.561	0.489	1.147	0.615	0.309	1.988	1.449	0.468
30	451251	0.520	0.456	1.139	0.553	0.480	1.153	0.646	0.303	2.129	1.474	0.568
31	456265	0.579	0.450	1.288	0.536	0.368	1.457	0.638	0.339	1.884	1.543	0.307
32	461279	0.538	0.326	1.649	0.619	0.327	1.896	0.575	0.495	1.162	1.569	0.373
33	466293	0.499	0.419	1.192	0.640	0.439	1.457	0.588	0.482	1.220	1.290	0.146
34	471307	0.530	0.525	1.009	0.519	0.349	1.485	0.575	0.439	1.309	1.268	0.241
35	476321	0.626	0.322	1.941	0.557	0.368	1.513	0.623	0.377	1.651	1.702	0.219
36	481334	0.586	0.403	1.455	0.627	0.469	1.336	0.599	0.420	1.427	1.406	0.062
37	486348	0.493	0.391	1.260	0.581	0.480	1.212	0.501	0.452	1.109	1.194	0.077
38	491362	0.670	0.441	1.517	0.640	0.535	1.196	0.600	0.359	1.674	1.462	0.244
39	496376	0.589	0.311	1.892	0.574	0.383	1.499	0.576	0.471	1.222	1.538	0.336
40	501390	0.570	0.440	1.293	0.549	0.380	1.446	0.614	0.481	1.275	1.338	0.094
41	506404	0.617	0.452	1.365	0.549	0.465	1.182	0.639	0.385	1.661	1.403	0.242
42	511418	0.524	0.367	1.429	0.550	0.366	1.503	0.561	0.442	1.271	1.401	0.119
43	516432	0.547	0.306	1.787	0.584	0.311	1.878	0.541	0.529	1.022	1.562	0.470
44	521446	0.497	0.308	1.613	0.550	0.417	1.318	0.536	0.383	1.399	1.444	0.152
45	526460	0.664	0.306	2.170	0.524	0.426	1.229	0.506	0.491	1.032	1.477	0.608
46	531473	0.504	0.334	1.506	0.521	0.349	1.493	0.600	0.345	1.737	1.579	0.137
47	536487	0.535	0.316	1.694	0.532	0.479	1.109	0.623	0.355	1.757	1.520	0.357
48	541501	0.532	0.358	1.486	0.524	0.418	1.254	0.520	0.376	1.385	1.375	0.117
49	546515	0.671	0.414	1.618	0.536	0.426	1.258	0.518	0.476	1.086	1.321	0.271
50	551529	0.581	0.350	1.656	0.581	0.311	1.866	0.548	0.497	1.103	1.542	0.394
51	556543	0.586	0.389	1.506	0.586	0.364	1.609	0.554	0.405	1.367	1.494	0.121
52	561557	0.598	0.348	1.718	0.574	0.432	1.328	0.654	0.420	1.556	1.534	0.196
53	566571	0.504	0.462	1.091	0.616	0.453	1.359	0.557	0.303	1.838	1.429	0.378
54	571585	0.511	0.399	1.279	0.601	0.365	1.647	0.605	0.354	1.710	1.545	0.233
55	576599	0.570	0.415	1.376	0.579	0.302	1.918	0.501	0.343	1.459	1.584	0.292
56	581612	0.572	0.321	1.781	0.526	0.349	1.509	0.506	0.470	1.076	1.455	0.355
57	586626	0.587	0.492	1.193	0.577	0.415	1.391	0.648	0.386	1.677	1.420	0.243

58	591640	0.623	0.377	1.652	0.563	0.455	1.236	0.611	0.456	1.340	1.409	0.216
59	596654	0.536	0.348	1.542	0.620	0.391	1.587	0.502	0.449	1.119	1.416	0.258
60	601668	0.596	0.411	1.452	0.615	0.424	1.449	0.634	0.363	1.745	1.548	0.170
61	606682	0.615	0.324	1.898	0.533	0.446	1.196	0.548	0.352	1.557	1.550	0.351
62	611696	0.507	0.427	1.186	0.576	0.423	1.361	0.545	0.457	1.193	1.247	0.099
63	616710	0.599	0.361	1.657	0.568	0.429	1.325	0.536	0.497	1.078	1.353	0.291
64	621724	0.510	0.498	1.025	0.586	0.489	1.197	0.519	0.336	1.543	1.255	0.264
65	626738	0.496	0.476	1.043	0.604	0.347	1.743	0.498	0.419	1.190	1.325	0.369
66	631751	0.626	0.505	1.240	0.636	0.498	1.275	0.567	0.440	1.289	1.268	0.026
67	636765	0.530	0.399	1.330	0.563	0.431	1.307	0.536	0.424	1.265	1.301	0.033
68	641779	0.557	0.449	1.242	0.568	0.379	1.498	0.548	0.493	1.113	1.284	0.196
69	646793	0.507	0.468	1.083	0.598	0.486	1.229	0.530	0.396	1.339	1.217	0.128
70	651807	0.522	0.356	1.465	0.591	0.436	1.355	0.543	0.413	1.314	1.378	0.078
71	656821	0.628	0.475	1.323	0.554	0.476	1.164	0.557	0.401	1.389	1.292	0.116
72	661835	0.602	0.424	1.418	0.632	0.352	1.797	0.563	0.351	1.605	1.607	0.189
73	666849	0.578	0.339	1.704	0.551	0.348	1.585	0.651	0.399	1.633	1.640	0.060
74	671863	0.508	0.490	1.036	0.521	0.375	1.388	0.524	0.341	1.536	1.320	0.257
75	676877	0.589	0.486	1.211	0.520	0.406	1.281	0.553	0.399	1.388	1.293	0.089
76	681890	0.523	0.452	1.156	0.580	0.446	1.298	0.629	0.366	1.717	1.391	0.292
77	686904	0.517	0.479	1.079	0.637	0.463	1.376	0.573	0.402	1.423	1.293	0.186
78	691918	0.645	0.305	2.112	0.531	0.411	1.293	0.589	0.443	1.330	1.578	0.463
79	696932	0.521	0.461	1.129	0.619	0.381	1.624	0.631	0.389	1.623	1.459	0.285
80	701946	0.588	0.355	1.655	0.528	0.485	1.089	0.579	0.335	1.729	1.491	0.351
81	706960	0.494	0.429	1.152	0.607	0.440	1.379	0.599	0.402	1.488	1.339	0.172
82	711974	0.647	0.375	1.727	0.550	0.343	1.605	0.639	0.304	2.102	1.812	0.259
83	716988	0.596	0.487	1.224	0.643	0.330	1.948	0.606	0.488	1.242	1.471	0.413
84	722002	0.659	0.375	1.758	0.617	0.457	1.350	0.649	0.319	2.033	1.714	0.343
85	727016	0.670	0.435	1.543	0.546	0.369	1.481	0.594	0.416	1.428	1.484	0.057
86	732029	0.615	0.347	1.770	0.519	0.487	1.065	0.599	0.415	1.444	1.426	0.353
87	737043	0.514	0.442	1.163	0.643	0.410	1.569	0.572	0.344	1.664	1.465	0.266
88	742057	0.577	0.476	1.211	0.643	0.408	1.575	0.607	0.493	1.231	1.339	0.205
89	747071	0.489	0.519	0.942	0.538	0.445	1.210	0.518	0.339	1.526	1.226	0.292
90	752085	0.664	0.451	1.471	0.547	0.482	1.135	0.649	0.435	1.492	1.366	0.200
91	757099	0.647	0.462	1.401	0.619	0.366	1.689	0.597	0.374	1.599	1.563	0.148
92	762113	0.623	0.393	1.586	0.531	0.441	1.203	0.551	0.314	1.758	1.516	0.284
93	767127	0.581	0.391	1.487	0.630	0.310	2.028	0.505	0.307	1.646	1.720	0.278
94	772141	0.566	0.313	1.809	0.521	0.320	1.627	0.592	0.368	1.606	1.681	0.112
95	777155	0.635	0.489	1.299	0.589	0.302	1.954	0.508	0.326	1.561	1.605	0.330
96	782168	0.597	0.397	1.505	0.589	0.455	1.294	0.618	0.494	1.251	1.350	0.136
97	787182	0.612	0.486	1.259	0.605	0.447	1.353	0.542	0.465	1.166	1.260	0.094
98	792196	0.660	0.403	1.639	0.598	0.473	1.265	0.612	0.369	1.662	1.522	0.223
99	797210	0.574	0.407	1.409	0.553	0.437	1.265	0.511	0.417	1.225	1.300	0.097
100	802224	0.601	0.393	1.528	0.530	0.324	1.634	0.629	0.342	1.839	1.667	0.158
101	807238	0.520	0.305	1.703	0.629	0.369	1.703	0.604	0.469	1.287	1.564	0.240

102	812252	0.656	0.378	1.733	0.627	0.396	1.584	0.604	0.479	1.261	1.526	0.241
103	817266	0.623	0.439	1.421	0.576	0.405	1.421	0.637	0.362	1.761	1.534	0.197
104	822280	0.523	0.374	1.400	0.526	0.497	1.059	0.532	0.387	1.374	1.277	0.190
105	827294	0.579	0.444	1.303	0.553	0.456	1.213	0.621	0.307	2.023	1.513	0.444
106	832307	0.619	0.445	1.390	0.616	0.367	1.680	0.555	0.350	1.587	1.552	0.148
107	837321	0.650	0.437	1.485	0.628	0.318	1.975	0.574	0.382	1.504	1.655	0.278
108	842335	0.669	0.333	2.010	0.590	0.353	1.672	0.547	0.372	1.470	1.717	0.272
109	847349	0.592	0.326	1.816	0.519	0.498	1.043	0.538	0.472	1.141	1.333	0.421
110	852363	0.496	0.430	1.156	0.564	0.482	1.171	0.520	0.412	1.261	1.196	0.057
111	857377	0.527	0.422	1.250	0.579	0.465	1.246	0.601	0.436	1.377	1.291	0.074
112	862391	0.641	0.398	1.612	0.526	0.411	1.280	0.605	0.324	1.871	1.588	0.297
113	867405	0.666	0.359	1.856	0.607	0.350	1.735	0.606	0.446	1.358	1.649	0.260
114	872419	0.648	0.472	1.372	0.612	0.421	1.455	0.550	0.420	1.308	1.378	0.074
115	877433	0.665	0.392	1.695	0.629	0.337	1.868	0.556	0.410	1.356	1.640	0.260
116	882446	0.661	0.444	1.490	0.595	0.323	1.841	0.605	0.407	1.486	1.606	0.204
117	887460	0.628	0.421	1.491	0.569	0.496	1.146	0.637	0.317	2.007	1.548	0.433
118	892474	0.554	0.449	1.233	0.560	0.406	1.379	0.633	0.456	1.389	1.334	0.087
119	897488	0.635	0.490	1.297	0.583	0.370	1.576	0.565	0.433	1.304	1.392	0.159
120	902502	0.615	0.347	1.775	0.551	0.423	1.301	0.581	0.501	1.159	1.412	0.322

40mM Ethanol

PRE-INDUCTION

trial	time	rise	run	slope	rise	run	slope	rise	run	slope	average slope	stdev
1	5014	0.315	0.376	0.839	0.426	0.351	1.215	0.480	0.412	1.166	1.074	0.205
2	10028	0.323	0.552	0.585	0.429	0.355	1.209	0.420	0.384	1.095	0.963	0.332
3	15042	0.469	0.386	1.216	0.319	0.506	0.630	0.372	0.527	0.705	0.850	0.319
4	20056	0.445	0.548	0.812	0.400	0.520	0.769	0.485	0.386	1.258	0.946	0.271
5	25070	0.466	0.409	1.141	0.362	0.476	0.761	0.330	0.369	0.895	0.932	0.193
6	30083	0.368	0.458	0.805	0.345	0.382	0.905	0.420	0.415	1.011	0.907	0.103
7	35097	0.341	0.377	0.906	0.460	0.386	1.192	0.342	0.363	0.944	1.014	0.155
8	40111	0.337	0.509	0.661	0.321	0.527	0.610	0.447	0.558	0.801	0.691	0.099
9	45125	0.442	0.383	1.154	0.367	0.368	0.997	0.442	0.380	1.163	1.105	0.093
10	50139	0.349	0.532	0.657	0.335	0.361	0.927	0.344	0.428	0.802	0.795	0.135
11	55153	0.329	0.357	0.921	0.357	0.486	0.735	0.495	0.377	1.313	0.990	0.295
12	60167	0.320	0.497	0.644	0.408	0.384	1.063	0.342	0.373	0.917	0.875	0.213
13	65181	0.413	0.534	0.774	0.281	0.379	0.740	0.489	0.541	0.904	0.806	0.087
14	70195	0.426	0.495	0.860	0.350	0.491	0.712	0.376	0.515	0.730	0.768	0.080
15	75209	0.407	0.455	0.895	0.465	0.451	1.029	0.422	0.409	1.032	0.985	0.078
16	80222	0.299	0.400	0.746	0.423	0.482	0.876	0.505	0.387	1.306	0.976	0.293
17	85236	0.320	0.468	0.684	0.280	0.442	0.634	0.303	0.474	0.638	0.652	0.028
18	90250	0.419	0.365	1.149	0.403	0.528	0.764	0.400	0.484	0.827	0.913	0.206
19	95264	0.327	0.496	0.659	0.409	0.523	0.783	0.491	0.476	1.030	0.824	0.189
20	100278	0.438	0.505	0.866	0.412	0.368	1.120	0.484	0.521	0.928	0.972	0.133
21	105292	0.429	0.539	0.796	0.391	0.453	0.862	0.334	0.462	0.724	0.794	0.069
22	110306	0.339	0.559	0.607	0.316	0.522	0.606	0.427	0.457	0.934	0.716	0.189

23	115320	0.449	0.372	1.204	0.439	0.443	0.993	0.359	0.476	0.753	0.983	0.226
24	120334	0.421	0.481	0.875	0.362	0.516	0.702	0.324	0.518	0.624	0.734	0.128
25	125348	0.492	0.555	0.886	0.361	0.495	0.730	0.441	0.467	0.944	0.854	0.111
26	130361	0.399	0.487	0.819	0.425	0.547	0.776	0.442	0.389	1.138	0.911	0.198
27	135375	0.321	0.383	0.839	0.464	0.428	1.084	0.340	0.559	0.609	0.844	0.237
28	140389	0.317	0.541	0.585	0.433	0.503	0.861	0.310	0.404	0.768	0.738	0.140
29	145403	0.414	0.535	0.774	0.323	0.351	0.921	0.460	0.546	0.842	0.846	0.074
30	150417	0.369	0.460	0.802	0.351	0.371	0.948	0.423	0.446	0.950	0.900	0.085
31	155431	0.479	0.429	1.117	0.368	0.483	0.761	0.321	0.423	0.760	0.879	0.205
32	160445	0.349	0.499	0.699	0.441	0.552	0.800	0.352	0.511	0.689	0.729	0.061
33	165459	0.418	0.526	0.795	0.422	0.530	0.796	0.362	0.521	0.695	0.762	0.058
34	170473	0.402	0.517	0.777	0.458	0.400	1.144	0.406	0.353	1.152	1.024	0.214
35	175487	0.330	0.365	0.902	0.298	0.412	0.725	0.349	0.496	0.703	0.777	0.109
36	180500	0.448	0.388	1.157	0.364	0.541	0.673	0.340	0.522	0.652	0.827	0.286
37	185514	0.348	0.449	0.775	0.437	0.369	1.185	0.354	0.385	0.920	0.960	0.208
38	190528	0.346	0.553	0.626	0.348	0.420	0.828	0.437	0.492	0.887	0.780	0.137
39	195542	0.452	0.455	0.995	0.284	0.553	0.514	0.422	0.395	1.067	0.858	0.301
40	200556	0.377	0.457	0.825	0.284	0.519	0.546	0.466	0.399	1.167	0.846	0.311
41	205570	0.353	0.554	0.637	0.408	0.390	1.047	0.340	0.379	0.896	0.860	0.207
42	210584	0.497	0.450	1.105	0.393	0.419	0.937	0.425	0.533	0.797	0.946	0.154
43	215598	0.471	0.480	0.981	0.403	0.449	0.897	0.496	0.371	1.336	1.072	0.233
44	220612	0.380	0.450	0.844	0.449	0.507	0.885	0.439	0.390	1.124	0.951	0.151
45	225626	0.402	0.394	1.021	0.485	0.491	0.988	0.402	0.546	0.737	0.915	0.155
46	230639	0.497	0.514	0.966	0.326	0.368	0.886	0.480	0.414	1.158	1.004	0.140
47	235653	0.307	0.361	0.850	0.481	0.524	0.919	0.417	0.459	0.907	0.892	0.037
48	240667	0.421	0.384	1.095	0.382	0.450	0.849	0.487	0.397	1.227	1.057	0.192
49	245681	0.418	0.505	0.828	0.387	0.459	0.845	0.381	0.446	0.854	0.842	0.013
50	250695	0.339	0.534	0.635	0.367	0.460	0.799	0.478	0.488	0.979	0.805	0.172
51	255709	0.465	0.469	0.991	0.430	0.352	1.219	0.404	0.434	0.931	1.047	0.152
52	260723	0.410	0.499	0.821	0.451	0.465	0.969	0.488	0.494	0.989	0.926	0.092
53	265737	0.512	0.512	0.999	0.486	0.556	0.874	0.358	0.531	0.674	0.849	0.164
54	270751	0.465	0.553	0.840	0.436	0.374	1.165	0.444	0.511	0.869	0.958	0.180
55	275765	0.371	0.367	1.009	0.326	0.462	0.705	0.393	0.437	0.899	0.871	0.154
56	280778	0.477	0.464	1.027	0.473	0.369	1.281	0.492	0.456	1.077	1.129	0.134
57	285792	0.424	0.460	0.923	0.418	0.476	0.879	0.451	0.401	1.126	0.976	0.132
58	290806	0.296	0.454	0.652	0.445	0.528	0.842	0.315	0.494	0.638	0.710	0.114
59	295820	0.475	0.385	1.235	0.457	0.492	0.929	0.305	0.546	0.559	0.908	0.338
60	300834	0.304	0.485	0.628	0.318	0.490	0.648	0.375	0.454	0.827	0.701	0.110
POST-INDUC POST-INDUCTION												
1	305848	0.837	0.368	2.274	0.924	0.540	1.711	0.807	0.453	1.783	1.923	0.307
2	310862	0.818	0.548	1.492	0.811	0.451	1.799	0.907	0.508	1.784	1.692	0.173
3	315876	0.697	0.358	1.949	0.940	0.457	2.059	0.882	0.535	1.650	1.886	0.211
4	320890	0.766	0.390	1.964	0.815	0.428	1.906	0.937	0.523	1.793	1.888	0.087
5	325904	0.901	0.444	2.030	0.934	0.467	2.001	0.944	0.503	1.876	1.969	0.082

6	330917	0.801	0.427	1.873	0.813	0.366	2.219	0.736	0.353	2.082	2.058	0.174
7	335931	0.800	0.413	1.937	0.917	0.471	1.945	0.770	0.362	2.128	2.003	0.108
8	340945	0.511	0.402	1.273	0.505	0.498	1.014	0.550	0.491	1.119	1.135	0.130
9	345959	0.764	0.433	1.765	0.943	0.533	1.771	0.736	0.535	1.376	1.637	0.227
10	350973	0.529	0.536	0.987	0.568	0.433	1.312	0.590	0.507	1.163	1.154	0.162
11	355987	0.767	0.507	1.513	0.787	0.410	1.920	0.937	0.509	1.840	1.758	0.216
12	361001	0.614	0.449	1.367	0.568	0.374	1.517	0.620	0.369	1.680	1.521	0.156
13	366015	0.559	0.409	1.369	0.511	0.366	1.397	0.575	0.421	1.368	1.378	0.017
14	371029	0.595	0.447	1.331	0.597	0.390	1.529	0.541	0.546	0.991	1.284	0.272
15	376043	0.566	0.514	1.101	0.585	0.501	1.167	0.586	0.527	1.113	1.127	0.035
16	381056	0.612	0.363	1.686	0.617	0.534	1.155	0.574	0.441	1.301	1.381	0.274
17	386070	0.612	0.358	1.712	0.542	0.534	1.016	0.518	0.420	1.235	1.321	0.356
18	391084	0.614	0.467	1.315	0.496	0.488	1.017	0.586	0.480	1.221	1.184	0.153
19	396098	0.607	0.500	1.214	0.514	0.403	1.275	0.504	0.538	0.937	1.142	0.180
20	401112	0.572	0.506	1.131	0.505	0.511	0.988	0.510	0.492	1.037	1.052	0.073
21	406126	0.514	0.523	0.983	0.503	0.545	0.921	0.584	0.469	1.245	1.050	0.172
22	411140	0.566	0.521	1.085	0.561	0.440	1.274	0.556	0.475	1.171	1.177	0.095
23	416154	0.590	0.510	1.156	0.616	0.456	1.350	0.494	0.493	1.003	1.170	0.174
24	421168	0.615	0.439	1.401	0.501	0.465	1.079	0.502	0.411	1.222	1.234	0.161
25	426182	0.494	0.399	1.238	0.618	0.470	1.313	0.540	0.374	1.447	1.333	0.106
26	431195	0.475	0.370	1.282	0.511	0.429	1.192	0.508	0.357	1.422	1.298	0.116
27	436209	0.654	0.356	1.836	0.549	0.383	1.434	0.545	0.361	1.508	1.593	0.214
28	441223	0.507	0.407	1.248	0.616	0.489	1.259	0.531	0.519	1.023	1.176	0.133
29	446237	0.609	0.387	1.571	0.590	0.379	1.556	0.575	0.431	1.334	1.487	0.133
30	451251	0.501	0.356	1.408	0.622	0.404	1.538	0.520	0.446	1.165	1.370	0.190
31	456265	0.509	0.370	1.374	0.580	0.489	1.187	0.558	0.482	1.156	1.239	0.118
32	461279	0.556	0.439	1.268	0.576	0.529	1.089	0.531	0.482	1.102	1.153	0.099
33	466293	0.527	0.526	1.003	0.593	0.490	1.209	0.612	0.446	1.372	1.195	0.185
34	471307	0.472	0.455	1.036	0.518	0.400	1.293	0.490	0.376	1.304	1.211	0.152
35	476321	0.565	0.518	1.090	0.501	0.550	0.911	0.593	0.449	1.322	1.108	0.206
36	481334	0.605	0.402	1.505	0.541	0.458	1.181	0.568	0.464	1.224	1.303	0.176
37	486348	0.561	0.494	1.134	0.564	0.437	1.291	0.549	0.484	1.136	1.187	0.090
38	491362	0.656	0.476	1.378	0.537	0.539	0.998	0.494	0.516	0.958	1.111	0.232
39	496376	0.508	0.383	1.328	0.583	0.439	1.329	0.514	0.526	0.978	1.211	0.203
40	501390	0.547	0.412	1.326	0.594	0.417	1.426	0.502	0.458	1.096	1.283	0.169
41	506404	0.488	0.534	0.914	0.590	0.517	1.141	0.596	0.486	1.227	1.094	0.161
42	511418	0.614	0.379	1.619	0.533	0.481	1.107	0.491	0.478	1.027	1.251	0.321
43	516432	0.516	0.426	1.212	0.576	0.357	1.616	0.537	0.353	1.520	1.449	0.211
44	521446	0.602	0.463	1.300	0.561	0.357	1.570	0.628	0.353	1.781	1.550	0.241
45	526460	0.525	0.542	0.970	0.571	0.510	1.119	0.557	0.445	1.252	1.114	0.141
46	531473	0.584	0.489	1.194	0.596	0.445	1.339	0.486	0.365	1.331	1.288	0.082
47	536487	0.489	0.498	0.982	0.554	0.494	1.120	0.527	0.503	1.049	1.050	0.069
48	541501	0.585	0.434	1.348	0.528	0.410	1.289	0.515	0.357	1.444	1.360	0.078
49	546515	0.597	0.429	1.390	0.521	0.448	1.164	0.633	0.527	1.202	1.252	0.121

50	551529	0.652	0.508	1.283	0.542	0.542	1.001	0.560	0.506	1.106	1.130	0.142
51	556543	0.538	0.533	1.008	0.592	0.392	1.510	0.517	0.399	1.296	1.271	0.252
52	561557	0.604	0.483	1.249	0.544	0.406	1.337	0.504	0.373	1.353	1.313	0.056
53	566571	0.540	0.366	1.475	0.529	0.363	1.458	0.501	0.381	1.314	1.416	0.089
54	571585	0.513	0.496	1.033	0.611	0.521	1.172	0.594	0.505	1.175	1.127	0.081
55	576599	0.567	0.505	1.124	0.515	0.545	0.945	0.518	0.445	1.165	1.078	0.117
56	581612	0.637	0.415	1.536	0.621	0.527	1.179	0.532	0.366	1.455	1.390	0.187
57	586626	0.552	0.493	1.120	0.601	0.444	1.354	0.591	0.377	1.567	1.347	0.224
58	591640	0.536	0.442	1.213	0.524	0.376	1.391	0.496	0.504	0.984	1.196	0.204
59	596654	0.581	0.430	1.351	0.602	0.420	1.434	0.488	0.447	1.092	1.292	0.178
60	601668	0.479	0.390	1.228	0.566	0.413	1.372	0.573	0.383	1.496	1.365	0.134
61	606682	0.544	0.381	1.429	0.600	0.539	1.115	0.573	0.425	1.347	1.297	0.163
62	611696	0.533	0.450	1.185	0.583	0.491	1.187	0.572	0.468	1.222	1.198	0.021
63	616710	0.514	0.436	1.178	0.581	0.413	1.407	0.552	0.497	1.109	1.231	0.156
64	621724	0.497	0.496	1.000	0.571	0.358	1.596	0.542	0.363	1.493	1.363	0.318
65	626738	0.624	0.499	1.251	0.517	0.533	0.971	0.515	0.503	1.024	1.082	0.149
66	631751	0.517	0.397	1.303	0.593	0.530	1.118	0.545	0.369	1.478	1.300	0.180
67	636765	0.485	0.518	0.935	0.508	0.441	1.152	0.590	0.385	1.534	1.207	0.303
68	641779	0.554	0.485	1.142	0.525	0.429	1.223	0.571	0.491	1.162	1.176	0.042
69	646793	0.516	0.480	1.074	0.623	0.477	1.305	0.493	0.518	0.952	1.111	0.179
70	651807	0.481	0.472	1.018	0.578	0.447	1.292	0.508	0.490	1.037	1.116	0.153
71	656821	0.593	0.382	1.550	0.557	0.427	1.304	0.523	0.424	1.234	1.362	0.166
72	661835	0.479	0.354	1.354	0.566	0.506	1.120	0.559	0.422	1.325	1.266	0.128
73	666849	0.532	0.541	0.984	0.512	0.352	1.454	0.516	0.428	1.205	1.214	0.235
74	671863	0.483	0.441	1.095	0.557	0.547	1.018	0.564	0.434	1.299	1.137	0.145
75	676877	0.659	0.490	1.345	0.503	0.490	1.027	0.602	0.470	1.282	1.218	0.168
76	681890	0.560	0.531	1.056	0.551	0.457	1.206	0.553	0.543	1.020	1.094	0.099
77	686904	0.534	0.449	1.188	0.565	0.356	1.587	0.584	0.537	1.087	1.288	0.264
78	691918	0.573	0.402	1.425	0.569	0.433	1.313	0.580	0.465	1.247	1.328	0.090
79	696932	0.513	0.390	1.315	0.576	0.441	1.306	0.485	0.515	0.941	1.188	0.213
80	701946	0.546	0.500	1.091	0.518	0.366	1.416	0.531	0.511	1.039	1.182	0.204
81	706960	0.567	0.492	1.152	0.495	0.473	1.046	0.493	0.367	1.345	1.181	0.151
82	711974	0.555	0.370	1.502	0.616	0.499	1.233	0.609	0.484	1.259	1.331	0.149
83	716988	0.635	0.359	1.770	0.606	0.430	1.408	0.606	0.449	1.351	1.510	0.227
84	722002	0.655	0.481	1.363	0.564	0.443	1.274	0.614	0.532	1.155	1.264	0.104
85	727016	0.569	0.482	1.180	0.517	0.445	1.162	0.554	0.475	1.166	1.169	0.009
86	732029	0.598	0.497	1.205	0.596	0.504	1.182	0.520	0.442	1.177	1.188	0.015
87	737043	0.617	0.443	1.392	0.605	0.478	1.264	0.634	0.430	1.474	1.377	0.106
88	742057	0.657	0.368	1.783	0.546	0.438	1.248	0.482	0.526	0.917	1.316	0.437
89	747071	0.500	0.447	1.119	0.551	0.371	1.485	0.558	0.534	1.044	1.216	0.236
90	752085	0.520	0.420	1.239	0.595	0.516	1.153	0.602	0.386	1.560	1.318	0.215
91	757099	0.553	0.387	1.431	0.581	0.481	1.209	0.512	0.404	1.266	1.302	0.115
92	762113	0.502	0.442	1.134	0.579	0.463	1.251	0.522	0.352	1.486	1.290	0.179
93	767127	0.605	0.476	1.271	0.508	0.411	1.235	0.590	0.363	1.625	1.377	0.215

94	772141	0.567	0.479	1.184	0.530	0.458	1.157	0.630	0.542	1.163	1.168	0.014
95	777155	0.573	0.445	1.289	0.597	0.431	1.386	0.581	0.421	1.381	1.352	0.054
96	782168	0.617	0.514	1.200	0.621	0.384	1.618	0.605	0.542	1.116	1.311	0.269
97	787182	0.480	0.482	0.998	0.597	0.477	1.251	0.515	0.518	0.994	1.081	0.148
98	792196	0.654	0.454	1.439	0.566	0.412	1.374	0.602	0.473	1.272	1.362	0.084
99	797210	0.562	0.375	1.499	0.531	0.509	1.043	0.504	0.353	1.427	1.323	0.245
100	802224	0.610	0.494	1.235	0.570	0.363	1.573	0.597	0.505	1.183	1.331	0.212
101	807238	0.502	0.511	0.982	0.602	0.447	1.348	0.630	0.438	1.438	1.256	0.241
102	812252	0.533	0.539	0.989	0.603	0.473	1.275	0.583	0.489	1.191	1.152	0.147
103	817266	0.639	0.516	1.239	0.558	0.532	1.049	0.564	0.376	1.502	1.263	0.227
104	822280	0.572	0.394	1.449	0.553	0.489	1.131	0.556	0.523	1.063	1.214	0.206
105	827294	0.654	0.549	1.190	0.613	0.449	1.365	0.573	0.422	1.357	1.304	0.099
106	832307	0.623	0.359	1.737	0.571	0.493	1.159	0.550	0.447	1.231	1.375	0.315
107	837321	0.482	0.397	1.213	0.582	0.400	1.454	0.599	0.487	1.230	1.299	0.135
108	842335	0.547	0.546	1.001	0.597	0.448	1.335	0.499	0.360	1.386	1.241	0.209
109	847349	0.618	0.481	1.285	0.538	0.504	1.068	0.510	0.442	1.153	1.169	0.109
110	852363	0.547	0.543	1.007	0.526	0.362	1.453	0.622	0.470	1.322	1.261	0.229
111	857377	0.539	0.537	1.005	0.547	0.398	1.376	0.544	0.500	1.087	1.156	0.195
112	862391	0.523	0.540	0.969	0.496	0.358	1.383	0.579	0.447	1.295	1.215	0.218
113	867405	0.596	0.479	1.243	0.594	0.538	1.104	0.551	0.400	1.376	1.241	0.136
114	872419	0.604	0.442	1.365	0.546	0.529	1.032	0.554	0.427	1.298	1.232	0.176
115	877433	0.655	0.511	1.281	0.605	0.374	1.620	0.611	0.515	1.187	1.362	0.228
116	882446	0.499	0.393	1.268	0.604	0.443	1.363	0.583	0.410	1.422	1.351	0.077
117	887460	0.486	0.510	0.952	0.586	0.514	1.139	0.548	0.423	1.294	1.128	0.171
118	892474	0.476	0.447	1.063	0.566	0.409	1.383	0.496	0.451	1.100	1.182	0.175
119	897488	0.481	0.453	1.061	0.593	0.487	1.216	0.548	0.389	1.409	1.229	0.174
120	902502	0.605	0.385	1.570	0.608	0.480	1.267	0.525	0.523	1.004	1.280	0.283

PRE-INDUCTION

trial	time	rise	run	slope	rise	run	slope	rise	run	slope	average slope	std dev
1	5014	0.504	0.357	1.409	0.422	0.391	1.079	0.423	0.330	1.281	1.257	0.166
2	10028	0.392	0.375	1.045	0.444	0.381	1.167	0.504	0.464	1.086	1.099	0.062
3	15042	0.360	0.509	0.707	0.312	0.450	0.692	0.333	0.353	0.944	0.781	0.141
4	20056	0.348	0.524	0.664	0.393	0.544	0.723	0.331	0.503	0.659	0.682	0.036
5	25070	0.461	0.473	0.975	0.492	0.384	1.280	0.549	0.336	1.632	1.296	0.328
6	30083	0.511	0.418	1.223	0.561	0.390	1.436	0.369	0.448	0.824	1.161	0.311
7	35097	0.408	0.456	0.895	0.344	0.507	0.678	0.362	0.435	0.831	0.801	0.112
8	40111	0.331	0.400	0.829	0.365	0.496	0.736	0.542	0.461	1.175	0.913	0.231
9	45125	0.372	0.532	0.700	0.602	0.499	1.207	0.533	0.527	1.012	0.973	0.256
10	50139	0.360	0.388	0.926	0.519	0.466	1.114	0.590	0.550	1.074	1.038	0.099
11	55153	0.366	0.321	1.142	0.437	0.368	1.189	0.423	0.350	1.208	1.180	0.034
12	60167	0.470	0.451	1.041	0.338	0.511	0.661	0.326	0.359	0.910	0.871	0.193
13	65181	0.454	0.378	1.202	0.456	0.374	1.218	0.304	0.327	0.928	1.116	0.163
14	70195	0.322	0.322	0.999	0.568	0.524	1.083	0.408	0.529	0.772	0.951	0.161

15	75209	0.390	0.434	0.899	0.302	0.409	0.739	0.289	0.393	0.735	0.791	0.094
16	80222	0.382	0.320	1.192	0.342	0.518	0.662	0.617	0.418	1.477	1.110	0.414
17	85236	0.322	0.324	0.992	0.305	0.384	0.793	0.405	0.361	1.124	0.969	0.167
18	90250	0.524	0.368	1.424	0.348	0.495	0.704	0.427	0.368	1.161	1.096	0.365
19	95264	0.523	0.388	1.348	0.499	0.391	1.278	0.535	0.463	1.155	1.260	0.098
20	100278	0.382	0.361	1.059	0.356	0.530	0.671	0.445	0.486	0.917	0.883	0.197
21	105292	0.525	0.355	1.478	0.602	0.339	1.777	0.439	0.455	0.964	1.407	0.411
22	110306	0.304	0.501	0.607	0.472	0.511	0.923	0.422	0.330	1.279	0.936	0.336
23	115320	0.365	0.536	0.681	0.401	0.363	1.104	0.413	0.480	0.860	0.881	0.212
24	120334	0.470	0.415	1.132	0.455	0.453	1.004	0.620	0.347	1.788	1.308	0.421
25	125348	0.556	0.426	1.304	0.495	0.518	0.955	0.394	0.500	0.789	1.016	0.263
26	130361	0.483	0.349	1.383	0.402	0.365	1.100	0.446	0.390	1.143	1.208	0.152
27	135375	0.493	0.500	0.987	0.386	0.548	0.705	0.321	0.327	0.983	0.892	0.162
28	140389	0.470	0.446	1.052	0.566	0.431	1.315	0.375	0.355	1.057	1.141	0.150
29	145403	0.564	0.529	1.067	0.331	0.346	0.956	0.320	0.503	0.637	0.887	0.224
30	150417	0.442	0.336	1.315	0.366	0.541	0.677	0.589	0.471	1.252	1.081	0.351
31	155431	0.370	0.407	0.911	0.416	0.413	1.008	0.586	0.443	1.322	1.080	0.215
32	160445	0.560	0.331	1.691	0.584	0.512	1.142	0.283	0.431	0.656	1.163	0.518
33	165459	0.470	0.540	0.870	0.379	0.376	1.008	0.588	0.528	1.114	0.997	0.122
34	170473	0.402	0.333	1.204	0.307	0.364	0.844	0.508	0.342	1.482	1.177	0.320
35	175487	0.422	0.381	1.107	0.588	0.440	1.335	0.362	0.378	0.957	1.133	0.191
36	180500	0.516	0.344	1.498	0.545	0.433	1.258	0.486	0.460	1.056	1.270	0.221
37	185514	0.500	0.434	1.153	0.444	0.515	0.861	0.293	0.530	0.554	0.856	0.299
38	190528	0.366	0.485	0.755	0.326	0.405	0.804	0.540	0.425	1.272	0.943	0.285
39	195542	0.337	0.473	0.711	0.330	0.423	0.781	0.325	0.538	0.605	0.699	0.089
40	200556	0.484	0.400	1.210	0.340	0.388	0.876	0.560	0.491	1.140	1.075	0.176
41	205570	0.400	0.547	0.730	0.348	0.439	0.791	0.555	0.454	1.222	0.914	0.268
42	210584	0.403	0.339	1.189	0.567	0.534	1.063	0.613	0.406	1.511	1.254	0.231
43	215598	0.426	0.368	1.160	0.520	0.542	0.960	0.488	0.375	1.299	1.139	0.171
44	220612	0.422	0.369	1.144	0.516	0.430	1.201	0.335	0.420	0.798	1.048	0.218
45	225626	0.522	0.331	1.576	0.409	0.450	0.909	0.594	0.544	1.093	1.193	0.345
46	230639	0.423	0.527	0.802	0.557	0.396	1.406	0.483	0.324	1.491	1.233	0.376
47	235653	0.458	0.353	1.297	0.466	0.454	1.027	0.594	0.537	1.106	1.143	0.139
48	240667	0.568	0.543	1.047	0.490	0.433	1.132	0.432	0.477	0.905	1.028	0.114
49	245681	0.359	0.544	0.661	0.595	0.439	1.356	0.418	0.542	0.770	0.929	0.373
50	250695	0.535	0.480	1.114	0.584	0.441	1.325	0.465	0.366	1.272	1.237	0.110
51	255709	0.512	0.430	1.189	0.399	0.447	0.892	0.515	0.502	1.027	1.036	0.149
52	260723	0.494	0.326	1.513	0.390	0.348	1.123	0.530	0.375	1.414	1.350	0.203
53	265737	0.469	0.413	1.136	0.583	0.414	1.407	0.346	0.346	1.000	1.181	0.207
54	270751	0.512	0.362	1.414	0.422	0.409	1.032	0.597	0.473	1.261	1.236	0.192
55	275765	0.504	0.496	1.016	0.416	0.538	0.773	0.397	0.340	1.168	0.986	0.199
56	280778	0.436	0.365	1.197	0.313	0.365	0.858	0.359	0.459	0.782	0.945	0.221
57	285792	0.425	0.381	1.114	0.416	0.437	0.953	0.481	0.443	1.085	1.051	0.086
58	290806	0.301	0.418	0.719	0.474	0.399	1.190	0.519	0.431	1.204	1.038	0.276

59	295820	0.326	0.384	0.849	0.425	0.444	0.958	0.483	0.430	1.125	0.977	0.139
60	300834	0.397	0.527	0.753	0.336	0.357	0.940	0.405	0.482	0.840	0.845	0.094
POST-INDUCTION												
1	305848	0.570	0.452	1.263	0.594	0.422	1.408	0.472	0.977	0.483	1.051	0.497
2	310862	0.464	0.841	0.552	0.449	0.709	0.634	0.557	0.389	1.432	0.873	0.486
3	315876	0.627	0.492	1.275	0.431	0.449	0.959	0.574	0.813	0.706	0.980	0.285
4	320890	0.444	0.706	0.628	0.512	0.356	1.439	0.540	0.518	1.043	1.037	0.405
5	325904	0.423	0.366	1.156	0.456	0.365	1.249	0.581	0.439	1.322	1.242	0.083
6	330917	0.374	0.547	0.683	0.602	0.813	0.740	0.642	0.441	1.457	0.960	0.431
7	335931	0.422	0.489	0.862	0.555	0.426	1.302	0.540	0.828	0.652	0.939	0.332
8	340945	0.364	0.436	0.835	0.457	1.263	0.361	0.569	0.374	1.520	0.905	0.582
9	345959	0.573	0.531	1.079	0.584	0.345	1.692	0.546	0.460	1.186	1.319	0.327
10	350973	0.478	0.828	0.577	0.519	0.487	1.066	0.640	0.977	0.655	0.766	0.263
11	355987	0.368	0.437	0.842	0.594	0.503	1.181	0.518	0.508	1.019	1.014	0.170
12	361001	0.371	0.382	0.970	0.608	0.446	1.362	0.610	0.491	1.241	1.191	0.201
13	366015	0.495	0.491	1.010	0.609	0.495	1.230	0.536	0.489	1.096	1.112	0.111
14	371029	0.654	0.450	1.455	0.615	0.358	1.718	0.515	0.412	1.250	1.475	0.234
15	376043	0.609	0.354	1.718	0.557	0.366	1.521	0.583	0.460	1.269	1.502	0.225
16	381056	0.462	0.409	1.129	0.455	0.977	0.466	0.584	0.841	0.694	0.763	0.337
17	386070	0.376	0.480	0.784	0.406	0.510	0.796	0.497	0.501	0.994	0.858	0.118
18	391084	0.482	0.758	0.635	0.471	0.533	0.884	0.432	0.370	1.166	0.895	0.265
19	396098	0.537	0.480	1.120	0.458	0.366	1.251	0.439	0.396	1.110	1.160	0.079
20	401112	0.394	0.334	1.180	0.438	0.828	0.529	0.516	0.475	1.088	0.933	0.352
21	406126	0.627	0.464	1.350	0.427	0.525	0.813	0.528	0.474	1.114	1.093	0.269
22	411140	0.539	0.346	1.557	0.462	0.423	1.092	0.446	0.373	1.197	1.282	0.244
23	416154	0.646	0.977	0.661	0.566	0.483	1.172	0.631	0.813	0.776	0.870	0.268
24	421168	0.392	0.525	0.746	0.597	0.456	1.311	0.567	0.401	1.415	1.157	0.360
25	426182	0.490	0.420	1.167	0.431	0.515	0.838	0.508	0.519	0.979	0.995	0.165
26	431195	0.398	0.505	0.787	0.567	0.547	1.036	0.513	0.476	1.078	0.967	0.157
27	436209	0.428	0.400	1.070	0.542	0.359	1.510	0.460	0.403	1.142	1.240	0.236
28	441223	0.628	0.352	1.784	0.432	0.343	1.261	0.633	0.417	1.518	1.521	0.262
29	446237	0.635	0.443	1.435	0.615	0.512	1.200	0.588	0.534	1.103	1.246	0.171
30	451251	0.404	0.525	0.769	0.596	0.459	1.299	0.477	0.398	1.198	1.089	0.281
31	456265	0.598	0.482	1.240	0.404	0.721	0.560	0.437	0.348	1.255	1.018	0.397
32	461279	0.451	0.482	0.937	0.605	0.447	1.352	0.511	0.456	1.120	1.136	0.208
33	466293	0.440	0.524	0.839	0.564	0.348	1.620	0.454	0.460	0.988	1.149	0.414
34	471307	0.394	0.507	0.777	0.457	0.531	0.861	0.551	0.378	1.456	1.032	0.370
35	476321	0.426	0.368	1.157	0.469	0.454	1.032	0.588	0.415	1.417	1.202	0.196
36	481334	0.540	0.828	0.652	0.468	0.485	0.965	0.546	0.436	1.253	0.957	0.301
37	486348	0.588	0.532	1.106	0.448	0.419	1.070	0.474	1.263	0.376	0.850	0.412
38	491362	0.421	0.371	1.134	0.587	0.363	1.616	0.564	0.537	1.049	1.266	0.306
39	496376	0.513	0.508	1.009	0.573	0.492	1.166	0.613	0.335	1.827	1.334	0.434
40	501390	0.619	0.435	1.423	0.476	0.469	1.015	0.463	0.340	1.361	1.266	0.220
41	506404	0.424	0.462	0.918	0.603	0.456	1.323	0.448	0.550	0.815	1.019	0.268

42	511418	0.394	0.351	1.121	0.489	0.420	1.164	0.504	0.471	1.069	1.118	0.047
43	516432	0.515	0.428	1.202	0.623	0.528	1.181	0.472	0.391	1.206	1.196	0.013
44	521446	0.441	0.402	1.097	0.432	0.357	1.209	0.496	0.337	1.470	1.259	0.192
45	526460	0.537	0.410	1.310	0.412	0.419	0.983	0.533	0.356	1.496	1.263	0.260
46	531473	0.383	0.503	0.761	0.496	0.522	0.948	0.493	0.505	0.975	0.895	0.117
47	536487	0.535	0.357	1.499	0.588	0.467	1.260	0.550	0.346	1.589	1.449	0.170
48	541501	0.404	0.402	1.005	0.453	0.521	0.870	0.564	0.389	1.449	1.108	0.303
49	546515	0.596	0.451	1.322	0.415	0.539	0.769	0.487	0.536	0.908	1.000	0.288
50	551529	0.393	0.518	0.759	0.616	0.487	1.265	0.487	0.457	1.064	1.030	0.255
51	556543	0.589	0.488	1.208	0.590	0.473	1.246	0.574	0.487	1.179	1.211	0.034
52	561557	0.485	0.488	0.995	0.517	0.471	1.098	0.509	0.437	1.165	1.086	0.086
53	566571	0.381	0.403	0.945	0.526	0.426	1.233	0.529	0.403	1.315	1.164	0.194
54	571585	0.454	0.349	1.299	0.459	0.502	0.914	0.623	0.408	1.526	1.246	0.309
55	576599	0.541	0.417	1.299	0.599	0.335	1.787	0.436	0.483	0.903	1.330	0.443
56	581612	0.501	0.528	0.949	0.419	0.406	1.034	0.507	0.374	1.354	1.112	0.214
57	586626	0.557	0.443	1.256	0.542	0.384	1.410	0.441	0.469	0.940	1.202	0.240
58	591640	0.452	0.534	0.847	0.443	0.495	0.895	0.619	0.493	1.257	1.000	0.224
59	596654	0.544	0.389	1.398	0.461	0.500	0.922	0.483	0.440	1.098	1.139	0.240
60	601668	0.542	0.332	1.636	0.586	0.530	1.107	0.433	0.334	1.298	1.347	0.268
61	606682	0.431	0.431	1.000	0.518	0.347	1.491	0.624	0.524	1.191	1.227	0.248
62	611696	0.462	0.423	1.091	0.567	0.538	1.054	0.575	0.413	1.392	1.179	0.185
63	616710	0.408	0.381	1.070	0.566	0.527	1.074	0.427	0.545	0.783	0.976	0.167
64	621724	0.636	0.353	1.801	0.578	0.432	1.339	0.425	0.528	0.805	1.315	0.498
65	626738	0.442	0.363	1.217	0.584	0.372	1.569	0.640	0.355	1.799	1.528	0.293
66	631751	0.612	0.381	1.606	0.580	0.330	1.755	0.551	0.392	1.407	1.589	0.174
67	636765	0.490	0.369	1.329	0.500	0.347	1.441	0.608	0.332	1.830	1.533	0.263
68	641779	0.441	0.483	0.913	0.457	0.549	0.832	0.486	0.530	0.917	0.888	0.048
69	646793	0.610	0.335	1.822	0.605	0.532	1.137	0.477	0.525	0.907	1.289	0.476
70	651807	0.576	0.353	1.633	0.425	0.432	0.984	0.594	0.510	1.164	1.260	0.335
71	656821	0.544	0.477	1.140	0.456	0.509	0.897	0.523	0.437	1.199	1.079	0.160
72	661835	0.448	0.338	1.327	0.609	0.546	1.114	0.625	0.486	1.286	1.242	0.113
73	666849	0.442	0.399	1.109	0.470	0.509	0.924	0.564	0.485	1.163	1.065	0.125
74	671863	0.504	0.537	0.939	0.581	0.491	1.183	0.627	0.449	1.395	1.172	0.228
75	676877	0.657	0.347	1.895	0.622	0.390	1.594	0.455	0.486	0.935	1.474	0.491
76	681890	0.629	0.532	1.183	0.561	0.385	1.458	0.495	0.448	1.105	1.248	0.185
77	686904	0.447	0.468	0.955	0.489	0.362	1.352	0.445	0.337	1.320	1.209	0.221
78	691918	0.487	0.436	1.116	0.574	0.332	1.728	0.620	0.505	1.227	1.357	0.326
79	696932	0.644	0.351	1.833	0.517	0.347	1.491	0.466	0.406	1.147	1.490	0.343
80	701946	0.422	0.384	1.098	0.417	0.383	1.088	0.546	0.464	1.177	1.121	0.049
81	706960	0.453	0.367	1.235	0.580	0.404	1.437	0.509	0.493	1.031	1.234	0.203
82	711974	0.463	0.516	0.898	0.480	0.361	1.328	0.550	0.536	1.026	1.084	0.221
83	716988	0.414	0.391	1.059	0.597	0.488	1.222	0.631	0.449	1.405	1.229	0.173
84	722002	0.554	0.506	1.095	0.604	0.375	1.610	0.437	0.491	0.891	1.199	0.370
85	727016	0.417	0.380	1.098	0.434	0.432	1.004	0.478	0.517	0.924	1.009	0.087

86	732029	0.467	0.391	1.195	0.428	0.494	0.868	0.612	0.408	1.502	1.188	0.317
87	737043	0.476	0.344	1.381	0.467	0.424	1.101	0.448	0.352	1.273	1.252	0.141
88	742057	0.488	0.497	0.982	0.569	0.356	1.600	0.593	0.373	1.588	1.390	0.353
89	747071	0.553	0.492	1.124	0.559	0.451	1.240	0.479	0.351	1.366	1.243	0.121
90	752085	0.388	0.497	0.780	0.405	0.437	0.927	0.633	0.432	1.464	1.057	0.360
91	757099	0.408	0.416	0.982	0.414	0.356	1.163	0.550	0.546	1.008	1.051	0.098
92	762113	0.371	0.503	0.739	0.414	0.505	0.820	0.427	0.407	1.047	0.869	0.160
93	767127	0.545	0.504	1.081	0.431	0.372	1.158	0.447	0.408	1.095	1.112	0.041
94	772141	0.426	0.453	0.939	0.429	0.473	0.907	0.615	0.451	1.363	1.070	0.255
95	777155	0.504	0.486	1.037	0.481	0.409	1.175	0.590	0.532	1.109	1.107	0.069
96	782168	0.619	0.419	1.479	0.463	0.409	1.130	0.576	0.503	1.143	1.251	0.198
97	787182	0.580	0.473	1.226	0.418	0.504	0.829	0.497	0.366	1.359	1.138	0.276
98	792196	0.564	0.446	1.266	0.525	0.539	0.972	0.503	0.495	1.016	1.085	0.159
99	797210	0.640	0.475	1.346	0.596	0.482	1.235	0.641	0.474	1.353	1.311	0.066
100	802224	0.639	0.393	1.624	0.529	0.461	1.149	0.536	0.524	1.022	1.265	0.318
101	807238	0.391	0.363	1.076	0.609	0.429	1.418	0.491	0.432	1.136	1.210	0.183
102	812252	0.408	0.457	0.894	0.460	0.382	1.204	0.541	0.354	1.528	1.209	0.317
103	817266	0.360	0.417	0.865	0.463	0.382	1.212	0.437	0.366	1.194	1.090	0.196
104	822280	0.558	0.353	1.582	0.598	0.357	1.677	0.599	0.492	1.218	1.492	0.242
105	827294	0.381	0.517	0.737	0.467	0.550	0.849	0.555	0.362	1.534	1.040	0.431
106	832307	0.390	0.523	0.746	0.579	0.365	1.588	0.535	0.456	1.174	1.169	0.421
107	837321	0.503	0.391	1.287	0.508	0.362	1.403	0.573	0.362	1.584	1.424	0.150
108	842335	0.484	0.387	1.250	0.592	0.446	1.328	0.441	0.451	0.977	1.185	0.184
109	847349	0.636	0.337	1.888	0.417	0.545	0.764	0.583	0.347	1.678	1.443	0.597
110	852363	0.571	0.487	1.173	0.546	0.444	1.231	0.556	0.358	1.552	1.319	0.204
111	857377	0.382	0.499	0.767	0.463	0.415	1.116	0.590	0.391	1.506	1.130	0.370
112	862391	0.632	0.357	1.770	0.435	0.540	0.806	0.543	0.437	1.242	1.273	0.483
113	867405	0.390	0.414	0.940	0.537	0.473	1.134	0.425	0.482	0.882	0.985	0.132
114	872419	0.649	0.376	1.724	0.424	0.450	0.943	0.486	0.351	1.385	1.351	0.392
115	877433	0.560	0.404	1.386	0.597	0.346	1.725	0.431	0.362	1.188	1.433	0.272
116	882446	0.611	0.479	1.277	0.591	0.502	1.177	0.640	0.506	1.264	1.239	0.054
117	887460	0.633	0.477	1.327	0.495	0.407	1.217	0.611	0.401	1.522	1.355	0.155
118	892474	0.596	0.361	1.653	0.454	0.380	1.195	0.422	0.420	1.006	1.285	0.333
119	897488	0.493	0.426	1.157	0.478	0.350	1.368	0.523	0.527	0.992	1.172	0.189
120	902502	0.521	0.426	1.222	0.410	0.514	0.798	0.619	0.380	1.628	1.216	0.415

control			20mM			40mM			60mM			no ethanol	baseline 1	
ave B1	ave B2	change	ave B1	ave B2	change	ave B1	ave B2	change	ave B1	ave B2	change		total average	total std dev
0.844	1.289	0.445	1.113	1.550	0.437	1.074	1.297	0.224	1.257	1.227	-0.029		0.950857259	0.101
1.058	1.355	0.296	1.146	1.247	0.100	0.963	1.198	0.236	1.099	1.179	0.080	baseline 2		
1.146	1.441	0.296	1.260	1.353	0.094	0.850	1.231	0.381	0.781	0.976	0.195	total average	total std dev	change
0.827	1.232	0.405	0.919	1.255	0.336	0.946	1.363	0.417	0.682	1.315	0.633	1.417	0.143	0.466
0.903	1.395	0.492	0.983	1.325	0.342	0.932	1.082	0.149	1.296	1.528	0.233	20mM	baseline 1	
0.860	1.415	0.555	1.147	1.268	0.121	0.907	1.300	0.393	1.161	1.589	0.428		total average	total std dev
1.028	1.190	0.161	0.827	1.301	0.473	1.014	1.207	0.193	0.801	1.533	0.732		1.032754434	0.121
1.010	1.247	0.237	1.001	1.284	0.283	0.691	1.176	0.485	0.913	0.888	-0.026	baseline 2		
1.231	1.393	0.162	1.081	1.217	0.136	1.105	1.111	0.006	0.973	1.289	0.316	total average	total std dev	change
0.942	1.279	0.337	1.059	1.378	0.319	0.795	1.116	0.320	1.038	1.260	0.222	1.451	0.134	0.419
0.964	1.301	0.337	0.968	1.292	0.324	0.990	1.362	0.373	1.180	1.079	-0.101	40mM	baseline 1	
0.792	1.368	0.576	0.926	1.607	0.681	0.875	1.266	0.392	0.871	1.242	0.371		total average	total std dev
0.972	1.377	0.404	0.887	1.640	0.754	0.806	1.214	0.408	1.116	1.065	-0.051		0.886987728	0.111
0.986	1.425	0.439	1.088	1.320	0.232	0.768	1.137	0.370	0.951	1.172	0.221	baseline 2		
0.801	1.338	0.537	0.873	1.293	0.421	0.985	1.218	0.233	0.791	1.474	0.683	total average	total std dev	change
1.063	1.275	0.212	1.146	1.391	0.245	0.976	1.094	0.118	1.110	1.248	0.138	1.260	0.125	0.373
0.955	1.230	0.275	1.038	1.293	0.255	0.652	1.288	0.636	0.969	1.209	0.240	60mM	baseline1	
1.003	1.410	0.407	0.997	1.578	0.581	0.913	1.328	0.415	1.096	1.357	0.261		total average	total std dev
0.912	1.167	0.255	1.043	1.459	0.416	0.824	1.188	0.364	1.260	1.490	0.230		1.052405355	0.164
0.788	1.288	0.499	1.006	1.491	0.485	0.972	1.182	0.210	0.883	1.121	0.238	baseline2		
0.998	1.351	0.353	1.027	1.339	0.312	0.794	1.181	0.387	1.407	1.234	-0.172	total average	total std dev	change
0.941	1.337	0.396	1.052	1.812	0.760	0.716	1.331	0.616	0.936	1.084	0.148	1.181	0.174	0.128
0.928	1.211	0.283	1.030	1.471	0.441	0.983	1.510	0.526	0.881	1.229	0.347			
1.081	1.274	0.193	1.006	1.714	0.708	0.734	1.264	0.530	1.308	1.199	-0.109			
0.936	1.429	0.493	0.981	1.484	0.503	0.854	1.169	0.316	1.016	1.009	-0.007			
0.897	1.236	0.340	1.059	1.426	0.367	0.911	1.188	0.277	1.208	1.188	-0.020			
1.096	1.492	0.395	0.774	1.465	0.691	0.844	1.377	0.533	0.892	1.252	0.360			
1.020	1.232	0.212	1.019	1.339	0.320	0.738	1.316	0.578	1.141	1.390	0.249			
1.144	1.420	0.276	1.051	1.226	0.175	0.846	1.216	0.371	0.887	1.243	0.357			
0.927	1.252	0.325	0.885	1.366	0.481	0.900	1.318	0.418	1.081	1.057	-0.024			
0.841	1.544	0.704	1.136	1.563	0.427	0.879	1.302	0.422	1.080	1.051	-0.029			
0.995	1.209	0.214	1.037	1.516	0.479	0.729	1.290	0.561	1.163	0.869	-0.294			
1.010	1.357	0.347	0.954	1.720	0.766	0.762	1.377	0.615	0.997	1.112	0.114			
0.988	1.338	0.351	1.091	1.681	0.590	1.024	1.168	0.144	1.177	1.070	-0.107			
0.963	1.374	0.410	1.190	1.605	0.415	0.777	1.352	0.575	1.133	1.107	-0.026			
0.870	1.321	0.451	1.092	1.350	0.258	0.827	1.311	0.484	1.270	1.251	-0.020			
0.849	1.395	0.546	0.856	1.260	0.403	0.960	1.081	0.121	0.856	1.138	0.282			
1.038	1.248	0.210	0.778	1.522	0.744	0.780	1.362	0.581	0.943	1.085	0.142			
0.882	1.331	0.449	1.205	1.300	0.095	0.858	1.323	0.464	0.699	1.311	0.613			
0.783	1.214	0.432	1.126	1.667	0.541	0.846	1.331	0.484	1.075	1.265	0.190			
0.949	1.375	0.426	1.144	1.564	0.421	0.860	1.256	0.396	0.914	1.210	0.296			
0.964	1.354	0.390	1.003	1.526	0.523	0.946	1.152	0.205	1.254	1.209	-0.046			

0.961	1.195	0.235	0.875	1.534	0.659	1.072	1.263	0.192	1.139	1.090	-0.049
0.981	1.351	0.370	0.964	1.277	0.313	0.951	1.214	0.263	1.048	1.492	0.444
0.968	1.389	0.422	1.043	1.513	0.470	0.915	1.304	0.389	1.193	1.040	-0.153
0.819	1.283	0.465	0.939	1.552	0.613	1.004	1.375	0.372	1.233	1.169	-0.064
0.885	1.138	0.252	1.283	1.655	0.372	0.892	1.299	0.407	1.143	1.424	0.281
0.873	1.198	0.325	1.199	1.717	0.518	1.057	1.241	0.184	1.028	1.185	0.158
1.019	1.381	0.362	1.074	1.333	0.259	0.842	1.169	0.326	0.929	1.443	0.514
1.019	1.298	0.279	1.030	1.196	0.166	0.805	1.261	0.456	1.237	1.319	0.081
1.170	1.420	0.250	1.016	1.291	0.275	1.047	1.156	0.109	1.036	1.130	0.094
0.909	1.369	0.459	1.194	1.588	0.393	0.926	1.215	0.289	1.350	1.273	-0.078
1.004	1.265	0.261	1.151	1.649	0.498	0.849	1.241	0.392	1.181	0.985	-0.196
0.921	1.251	0.330	1.379	1.378	-0.001	0.958	1.232	0.274	1.236	1.351	0.115
0.775	1.267	0.492	0.904	1.640	0.736	0.871	1.362	0.492	0.986	1.433	0.447
0.892	1.463	0.571	0.999	1.606	0.607	1.129	1.351	0.222	0.945	1.239	0.294
1.011	1.435	0.424	0.966	1.548	0.582	0.976	1.128	0.152	1.051	1.355	0.304
0.938	1.381	0.443	1.020	1.334	0.314	0.710	1.182	0.472	1.038	1.285	0.247
0.974	1.482	0.507	0.864	1.392	0.528	0.908	1.229	0.321	0.977	1.172	0.195
0.748	1.343	0.595	1.060	1.412	0.352	0.701	1.280	0.579	0.845	1.216	0.372