

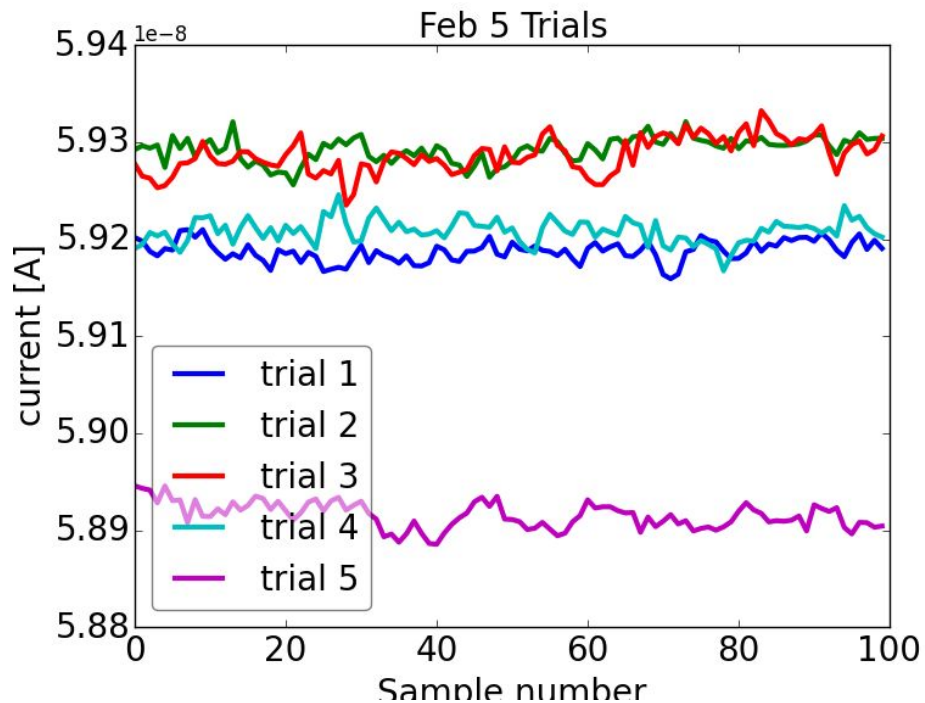
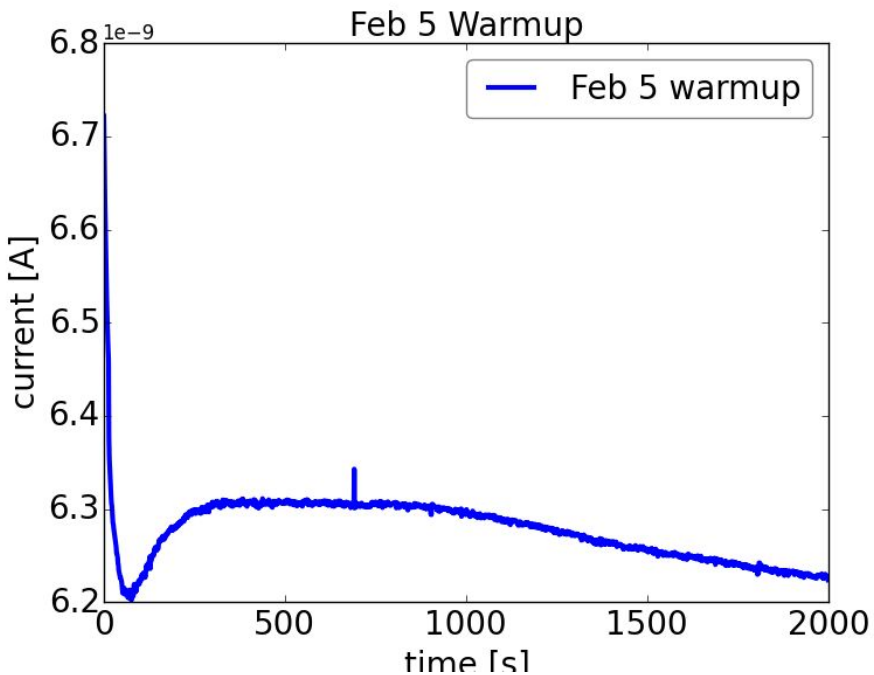
# Weekly Update

Feb 8/18

# Cuvettes

- Added nuts to the sides of the rectangular cuvette so it will be constant
- Problem is that all cuvettes are different shapes with sizes greater than 1 thou which makes  $\frac{3}{5}$  of them not be able to fit into the holder
- Emailed you if I should stick with the same cuvette because they'll be in different positions
  - Not a problem yet because I'm still figuring some stuff out as I'll show

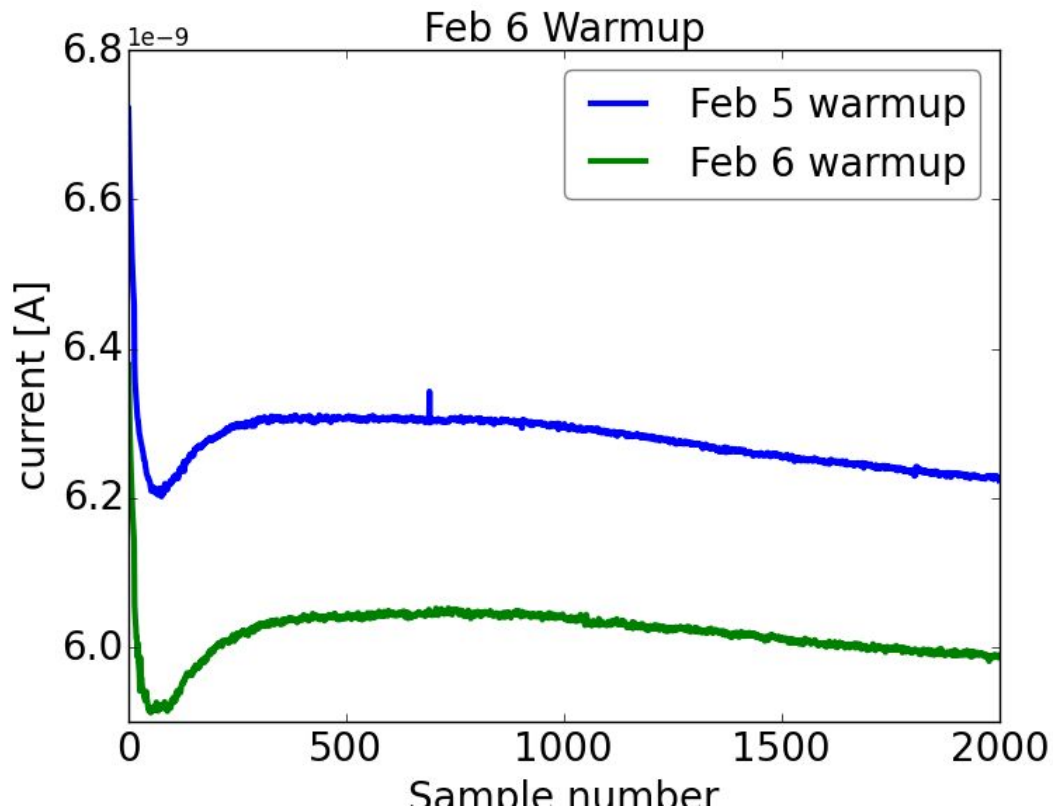
# Warmup and Trials Attempt



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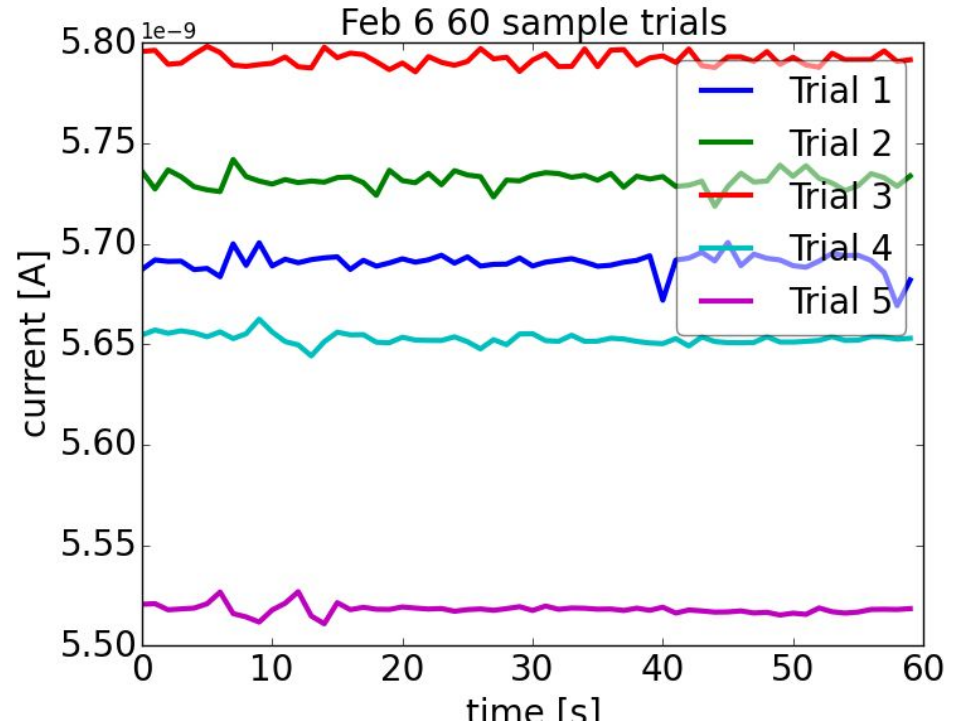
- Not sure why there's a blip in the warmup
- Doesn't appear in channel 2 plot
- However, trial currents are consistent in both channels
  - ie) if trial's current is high then the other channel is high, likewise for low current
- Not sure why trial 5 is like that
- Omitting trial 5, the error is  $<1\%$  but with trial 5, error is  $\sim 2.4\%$

# Warmup comparing 2 days



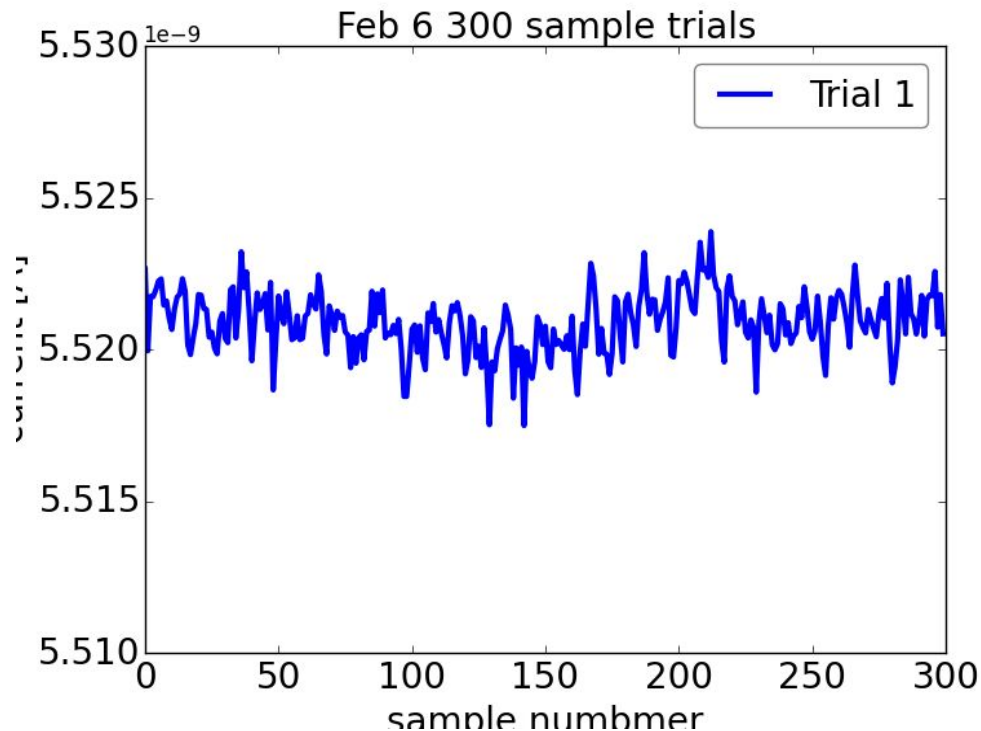
# Trials Attempt again sample test

- Again not sure why trial 5 is all the way down there
- This was me WITHOUT even touching it
- If it's not the lamp, it must be external factors
- This was done with 30 minute warmup time, maybe it's not stable after 30 minutes with sample
- 60 sample rate for 60 seconds



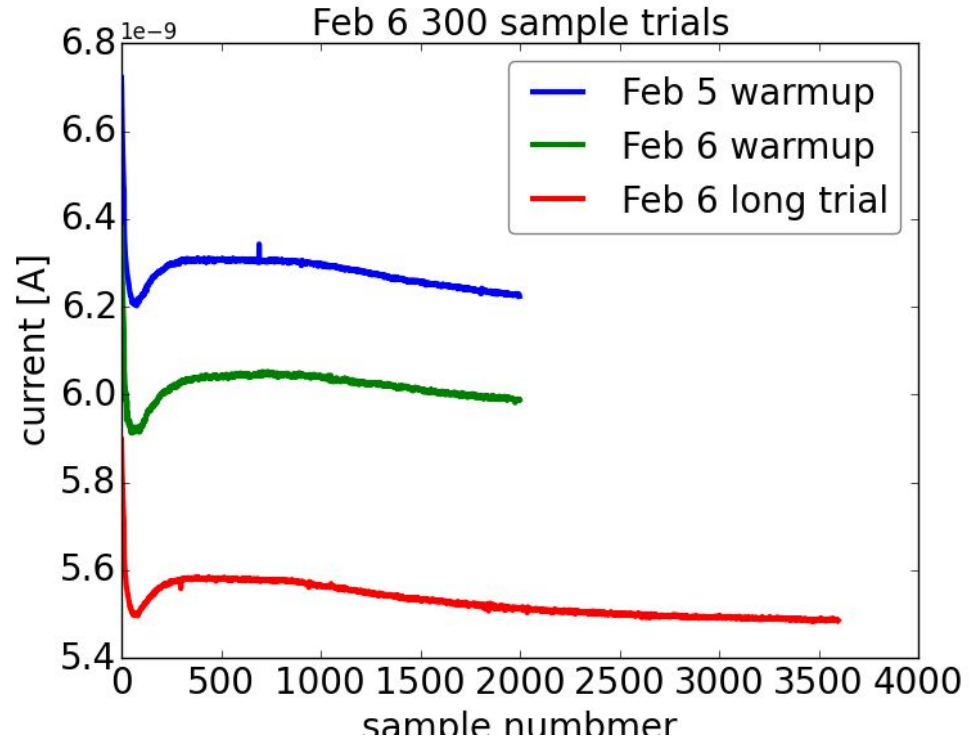
# 300 samples

- Fluctuates a little bit
- But not as big as before... maybe it still hasn't settled yet, check using a longer trial method



# Comparing Warmup

- Feb 5 and 6 should be the same (no sample) and long trial has a sample therefore its much lower
- Doesn't explain why Feb 5 and 6 are different though
- If not lamp problem, not height problem, it could be angle problem? External factors?





# Summary

- Even if I don't take the cuvette out to test different trials, something is affecting the trials, possibly external factors
- I can make it is up to 2%
- Can't seem to improve this error as of now, I'm just going to run the samples with 2% error