

Meeting with Dr. Fridman (11/18/19)

Questions

1. To Calculate $300 \mu\text{C}/\text{cm}^2$ per phase, do you just integrate your signal to get the charge injected and then divide by the surface area of the electrode right?
2. **What determines the number of $300 \mu\text{C}/\text{cm}^2$? Is this a hard rule? Are there ways to push past this threshold safely**
3. Is the number $300 \mu\text{C}/\text{cm}^2$ with a bias?
4. Is it necessary to do potentiometer experiments to verify the waveform I use isn't doing electrochemistry?
5. **Is there a rule of thumb excitation threshold? I found thresholds of $\sim 1 \text{ nC}$ per phase.**
6. Everything is reported in phase, but what's effect of the length of the phase? On the excitation thresholds? On the damage thresholds?
7. What damage does bubbling hydrogen/oxygen gas do to the brain?

My electrodes:

1. 32-64 Channels
2. $176 \mu\text{m}^2$ GSA Pt-Ir contacts
3. with a charge density of $283 \mu\text{C}/\text{cm}^2$, I get Charge/phase of 0.5 nC .
4. $50 \mu\text{m}$ within stereotrode or tetrode group.