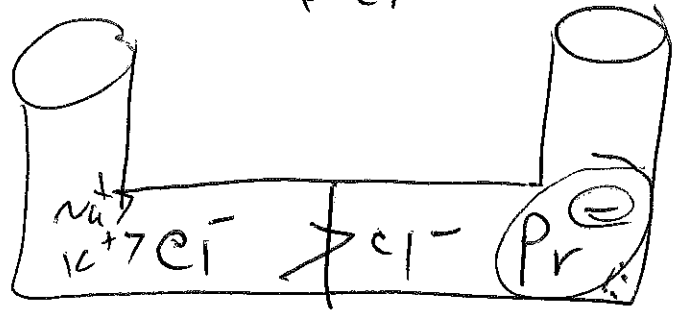
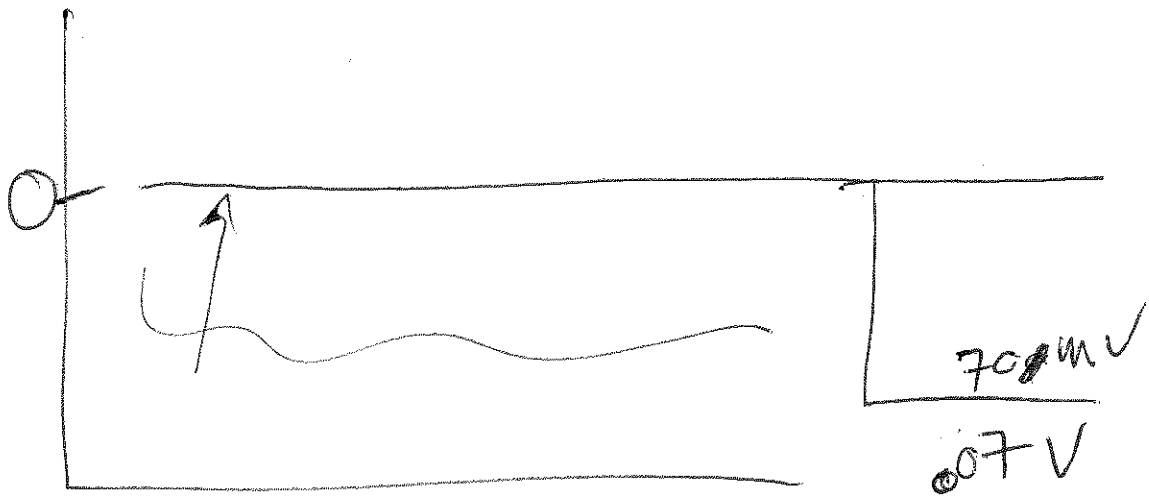
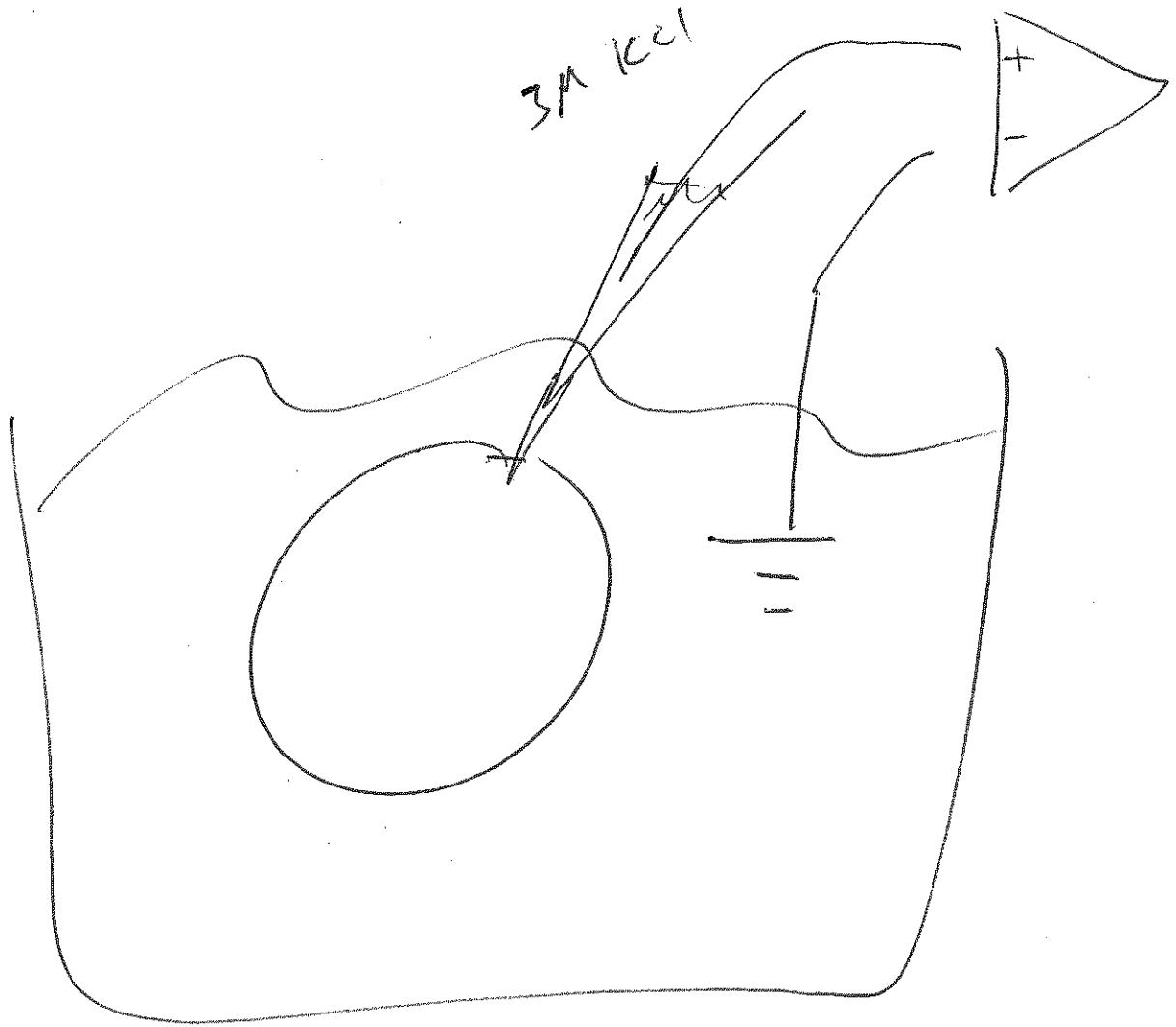


~~Na^+~~
 ~~K^+~~
 ~~Cl^-~~



OSM



$$E_{(ion)} = \frac{RT}{zF} \ln \frac{\{ion\}_{out}}{\{ion\}_{in}}$$

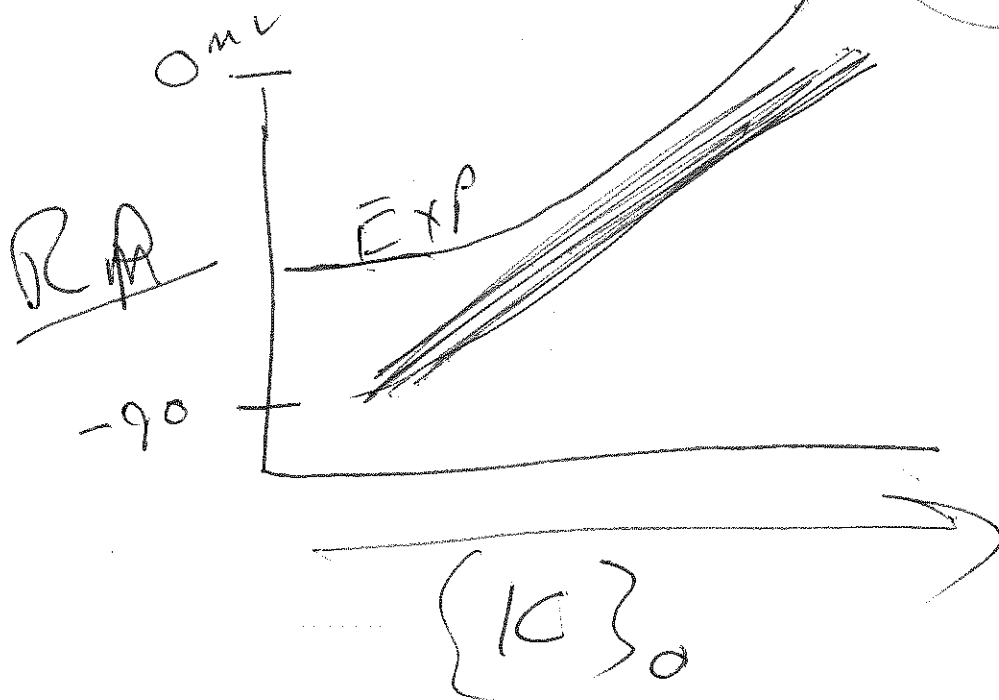
$$18^{\circ}C = \frac{0.058}{z_{Na^{+}}} \log \frac{\{ \}_{o}}{\{ \}_{i}} \frac{3.5mM}{120mM}$$

$$= -0.089V$$

$$= -89mV$$

$$= -22mV$$

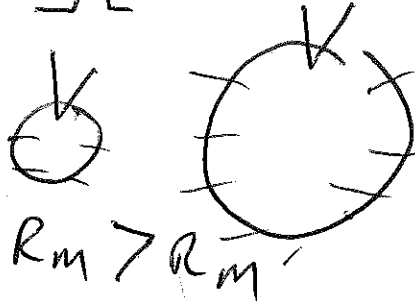
$$\frac{50}{120}$$



$$I = \frac{V}{R}$$

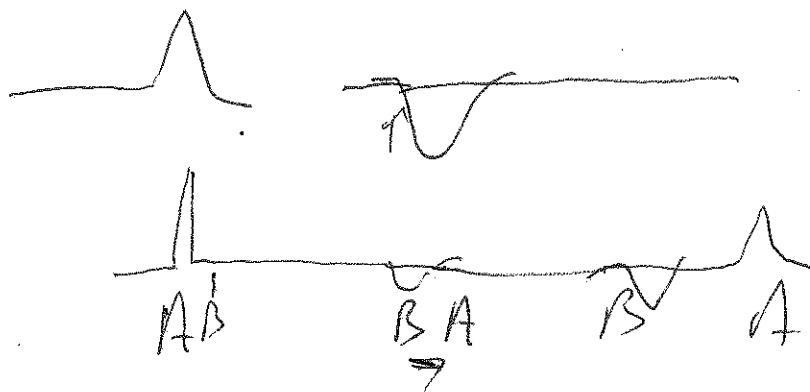
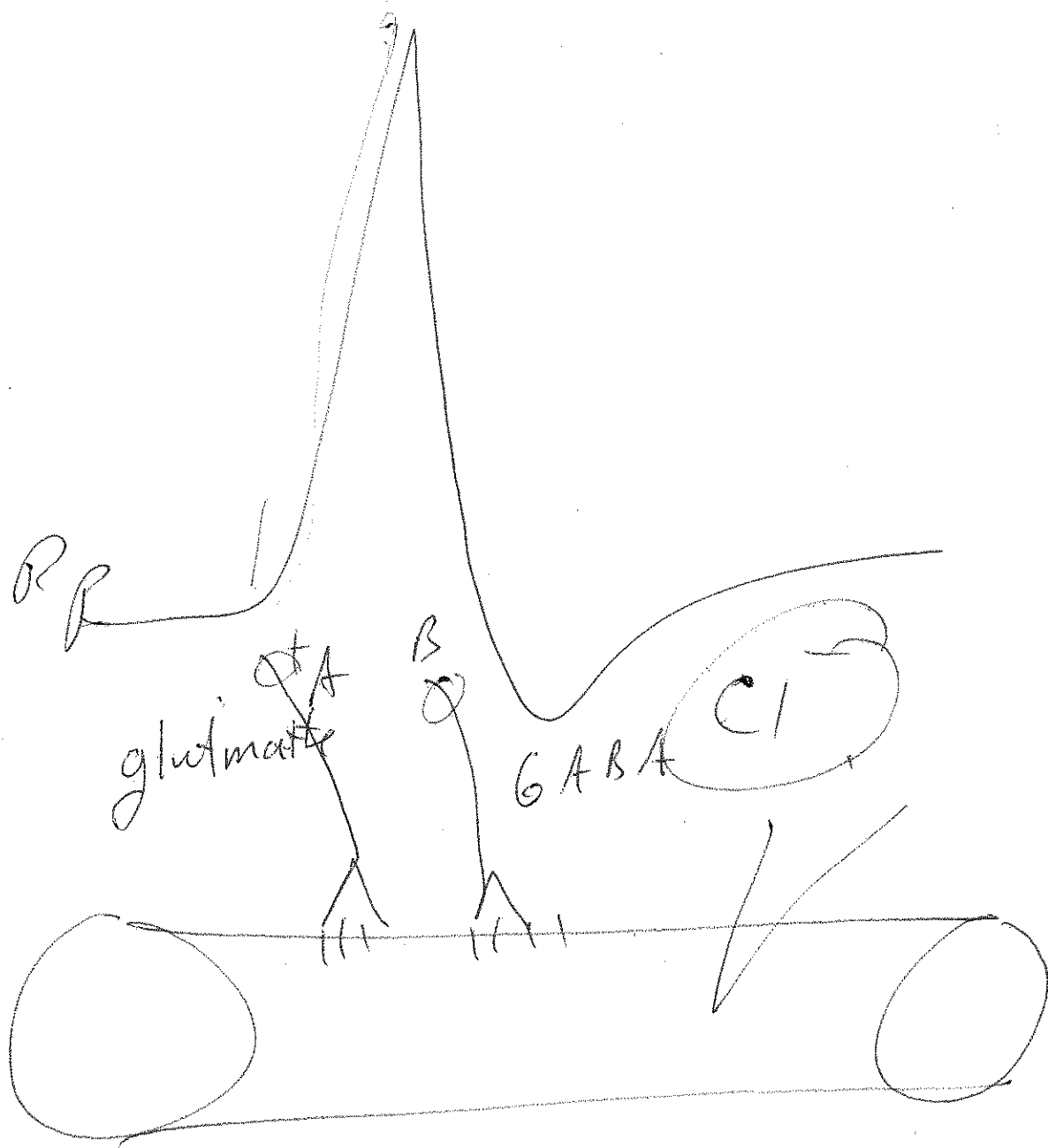
$IR = V$

$I(A)$



$I(A)$





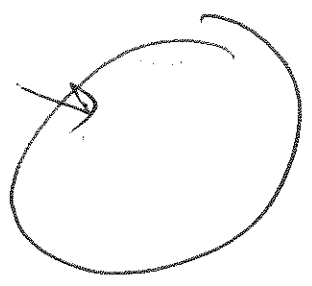
$$I = I_{NA}$$

$$I = \frac{V}{R}$$

$$\downarrow R_m = \frac{V}{I_{NA}}$$



R_m

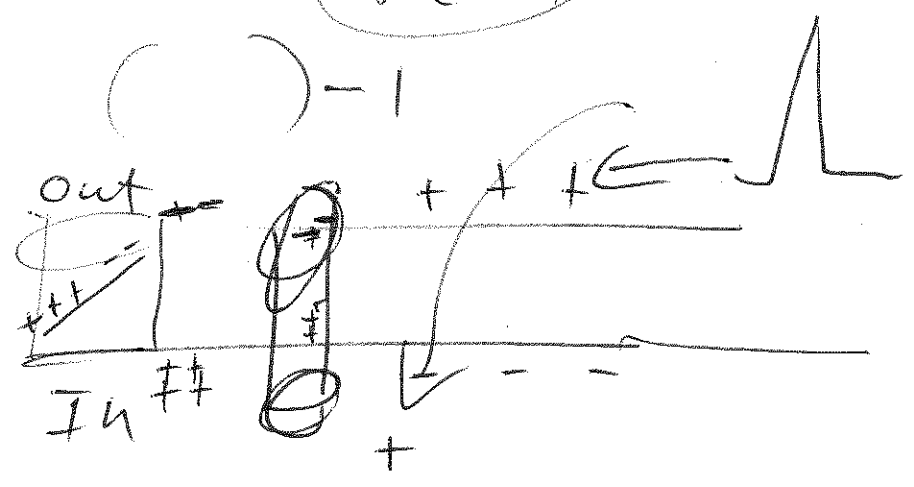


$\downarrow R_m$

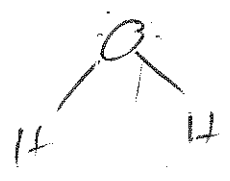
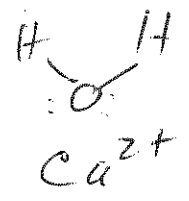
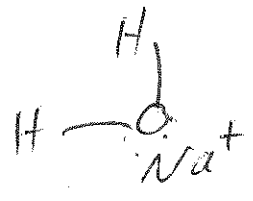
$N \cdot E q$

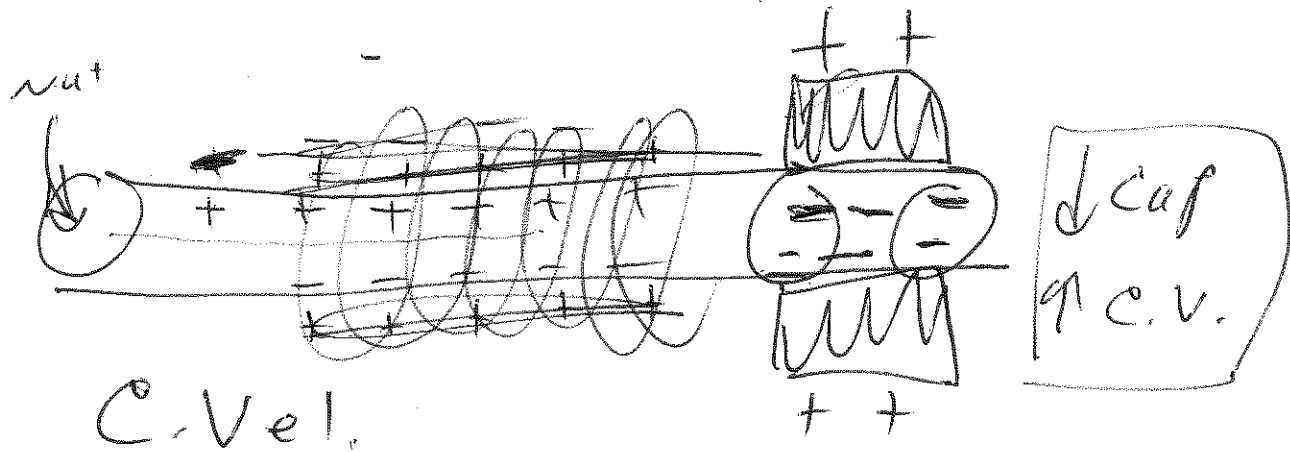
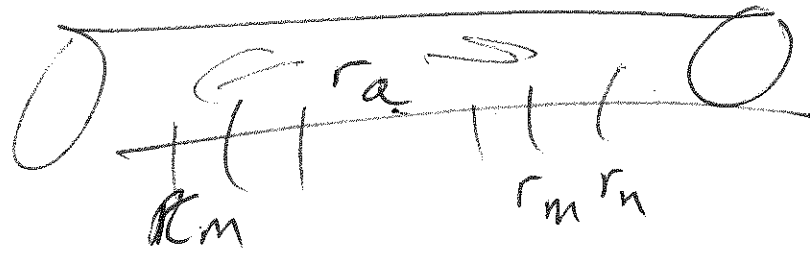
$$E = - \frac{RT}{zF} \log \frac{\sum z_c}{\sum z_i}$$

$$0.058 \left(\log \frac{z_{ic}}{z_{io}} \right)$$



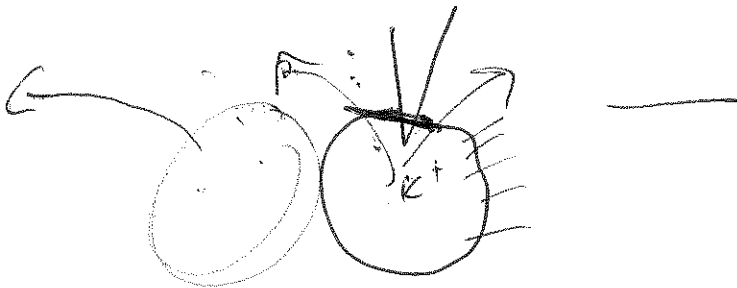
1. Size of Ion
2. charge Ion / pore
3. Hydration sphere.

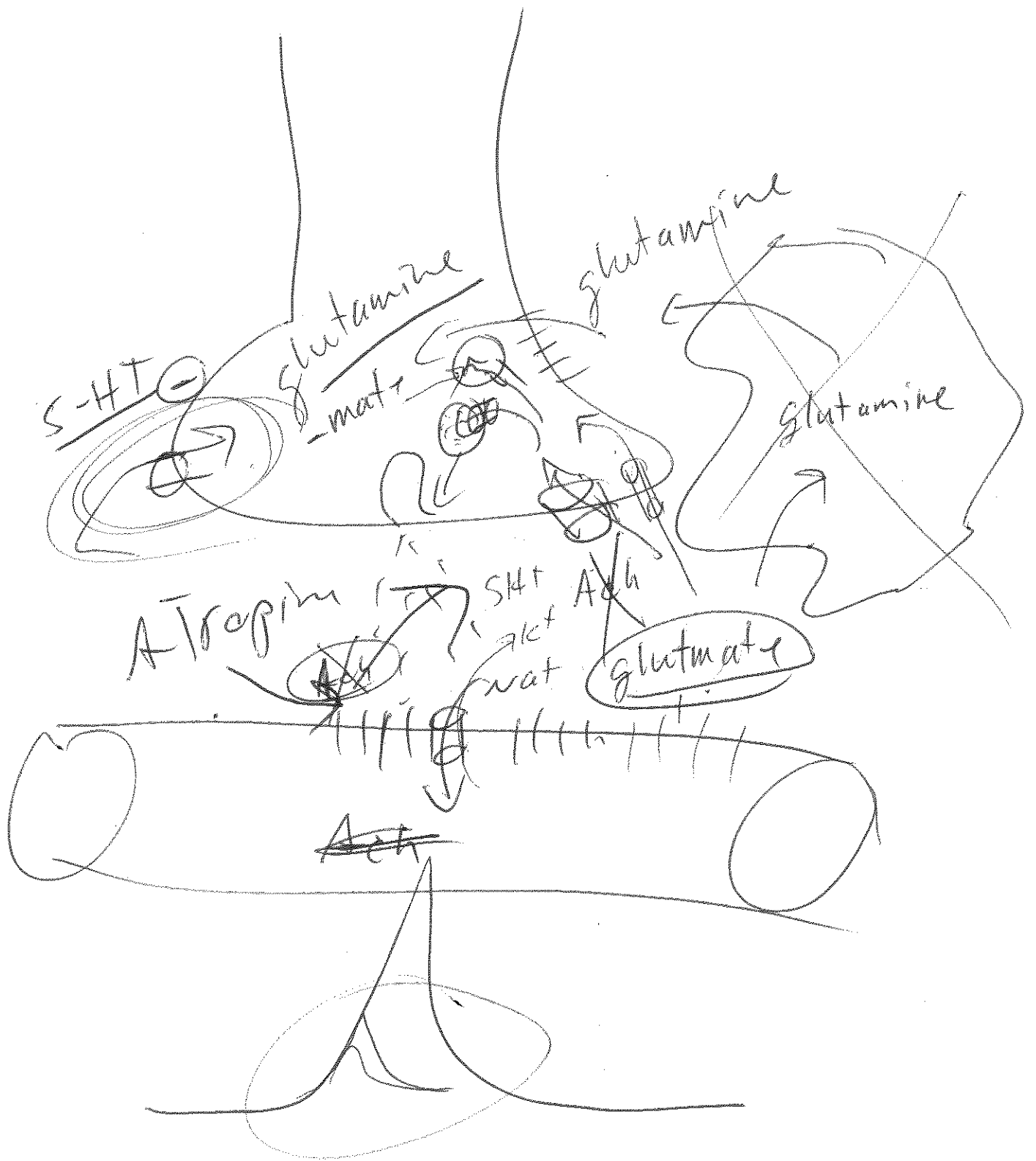


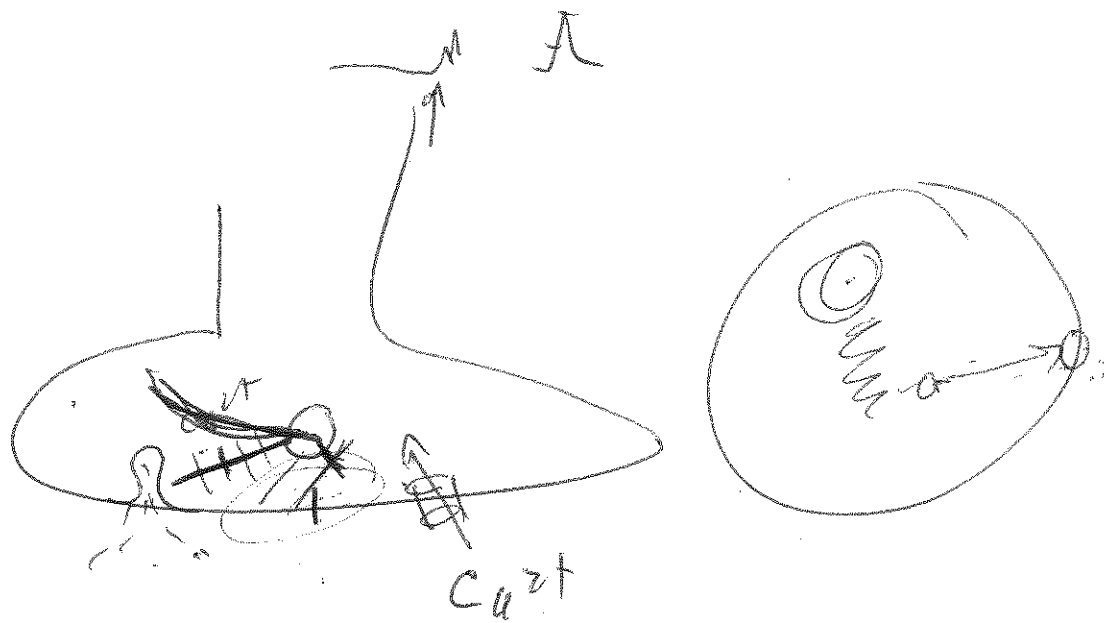


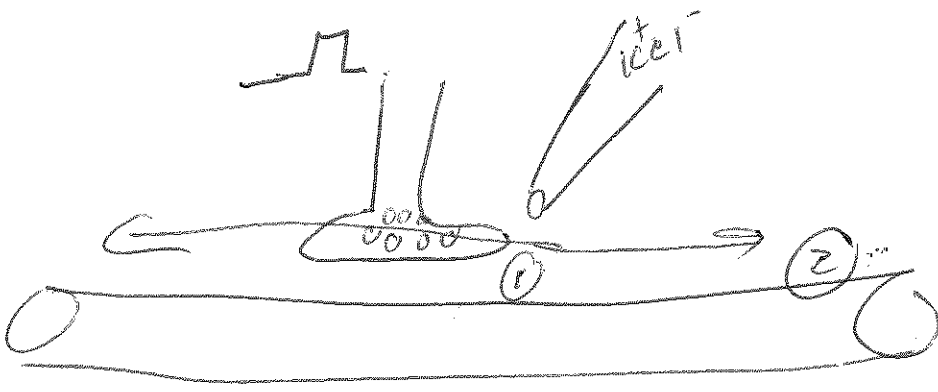
C.Vel.

↑ R_m
maintain
pot.

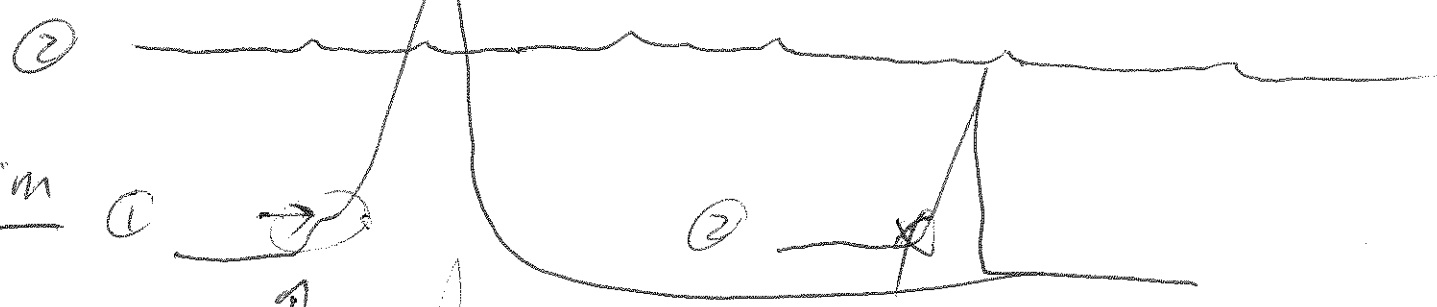
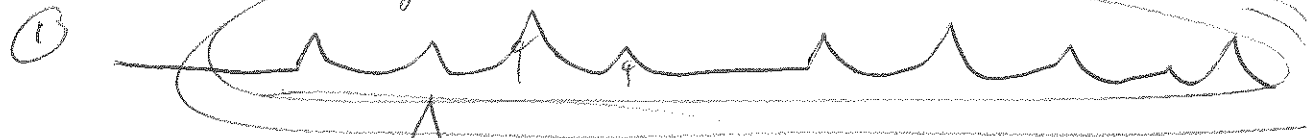








Just Recording

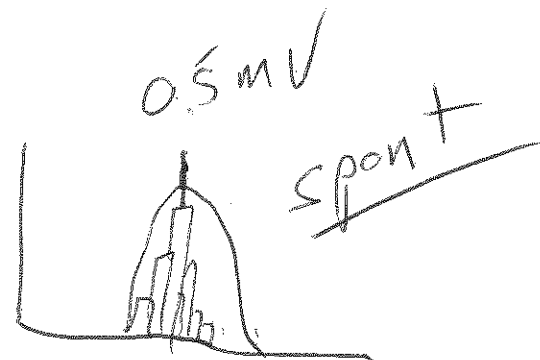


stim

$\downarrow Ca^{2+}, \uparrow Mg^{2+}$



\uparrow Evoked



Quantal Hypothesis