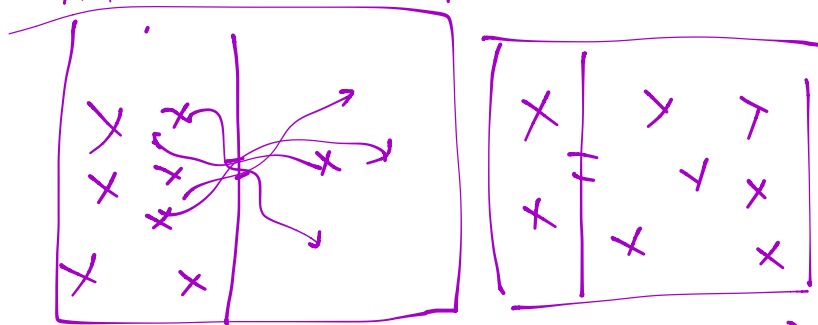


LECTURE #17, CHEMICAL GRADIENTS

WHAT ARE CHEMICAL GRADIENTS?



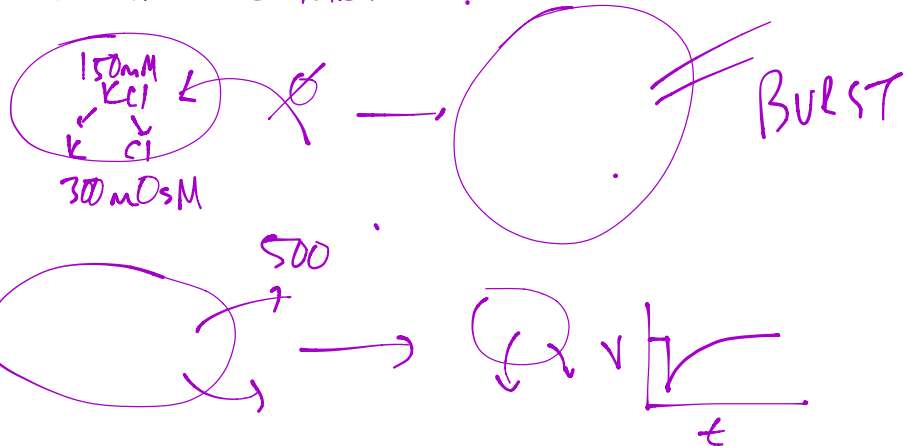
CHEMICAL POTENTIAL

$$\Delta G_{\text{GRAD}} = RT \ln(C_2/C_1)$$

$$C = \frac{\text{mol}}{L}$$

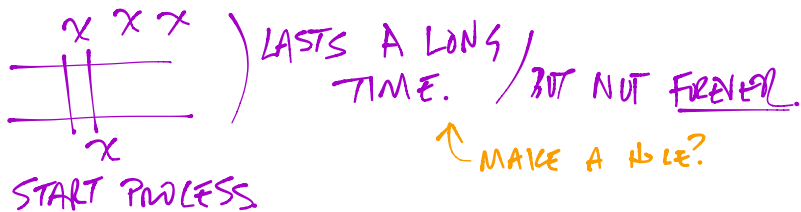
MACGYVER CUP.

WATER HAS A CONCENTRATION!



HOW ARE THEY:

- HARNESSSED?
- CREATED?
- MAINTAINED

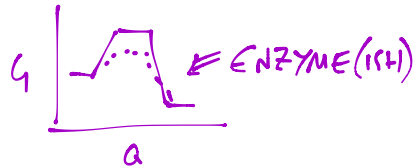


- SELECTIVITY - (WHAT GOES THROUGH)
- (WHEN IT GOES THROUGH)

SHOW A QUAPROW. DISCUSS SELECTIVITY FILTER.

FACILITATED DIFFUSION

GET THINGS ACROSS THAT ARE SLOW.



SHOW SLOWEST
IONOPHORES.

HOW ARE THEY BUILT?

ENERGY EXPENDITURE.

SHOW K^+/Na^+ TRANSPORT.