<T #flo #ref #disorganized #incomplete

1 | Lipids

#toexpand

1.1 | Self assembly

1.2 | Construction

1.3 | Fatty acids

- caboxylic acid
- fatty part is a hydrocarbon
- connected to the head by an ester linkage using a dehydration synthesis reaction
- energy storage molecule

1.3.1 | Saturation vs unsaturated

- If it's saturated, then everything lines up nicely
- unsaturated fatty acids have a kink (carbon doublebond)
  - harder to pack and flow more smoothly

1.4 | Phospholipids

- like normal lipids but with a mmore polar head
- one saturated tail and one unsaturated tail
- bilayers separate water from outside and inside

1.4.1 | Assembly

- Liposome: bilayer, hydrophilic inside, layer of hydrophobic tails
- Micelle: one layer, hydrophobic inside

1. Assembly structure depends on pH
   - High pH = low protons available
     - thus, the charged head is negatively ionized
     - Thus, the hydrophobic tails attract eachother by water exclusion and charged heads repel eachother
   - pH around 8.5 means half and half, which means that charged heads are likely to attract eachother

2 | **Voltage in Cells**