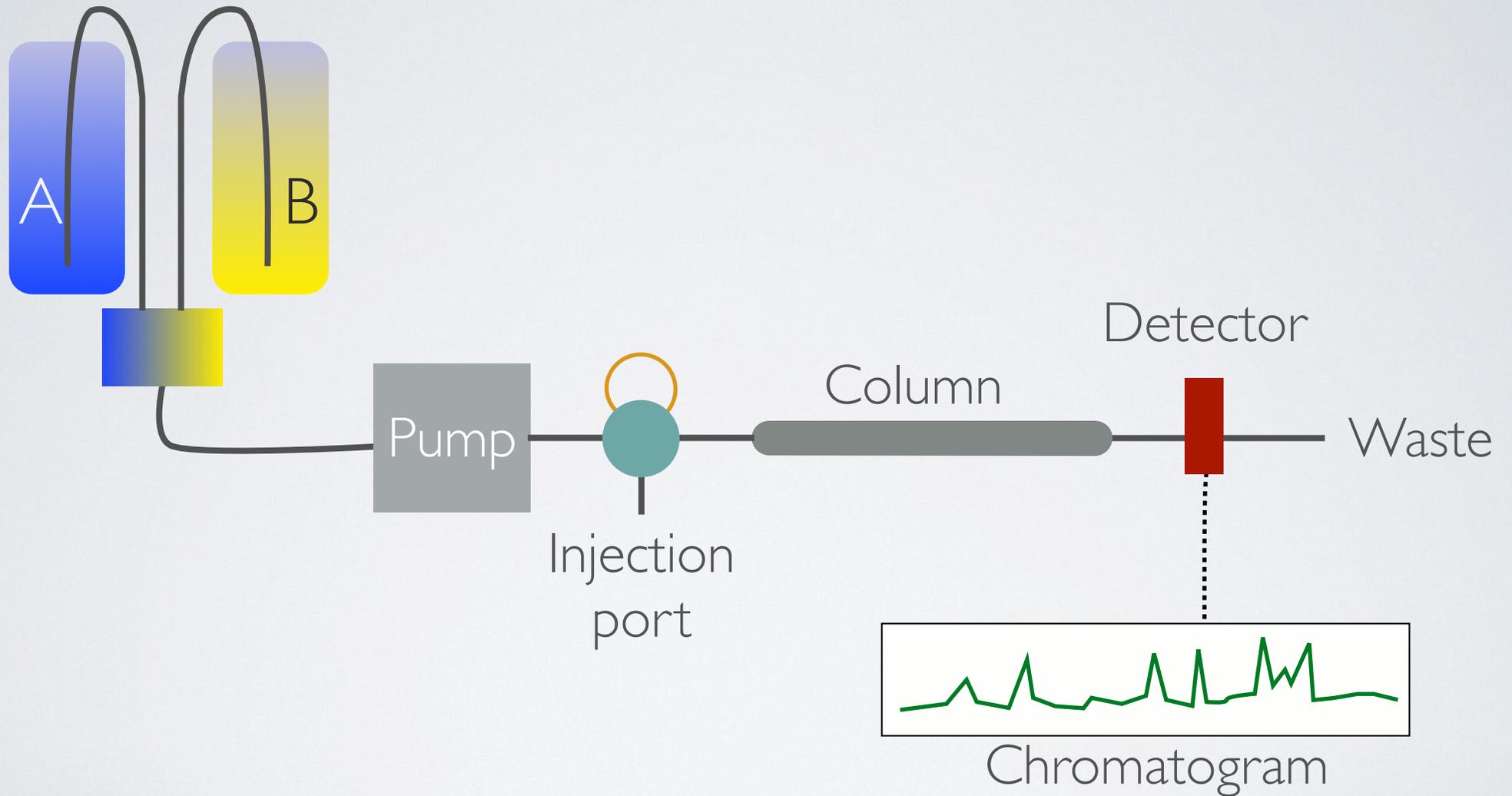


# LIQUID CHROMATOGRAPHY

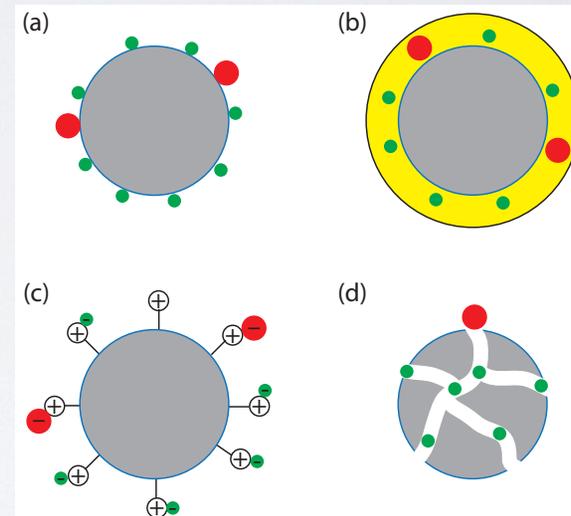
SDSU CHEM 251

# LIQUID CHROMATOGRAPHY INSTRUMENTATION



# LC SEPARATIONS

- LC columns are packed with micron sized (1-10 $\mu\text{m}$  diameter) **particles**, typically **coated with the stationary phase**.
- Stationary phase is selected to be slightly favored by the analyte, compared to the mobile phase.
- **Differences in analyte affinity** for the stationary phase results in the separation of analytes.



# LC SEPARATION MODES

	Stationary Phase	Mobile Phase	Separates
Ion Exchange	Anionic or Cationic	Weak salt solution	Anions or Cations
Size Exclusion	Porous particles	Anything	Large molecules (proteins, polymers)
Normal Phase	Polar	Non-polar	Polar Molecules
Reversed Phase	Non-polar	Polar	Non-polar Molecules