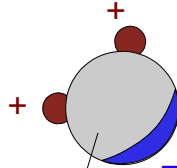


# Why density of seawater increases with salinity

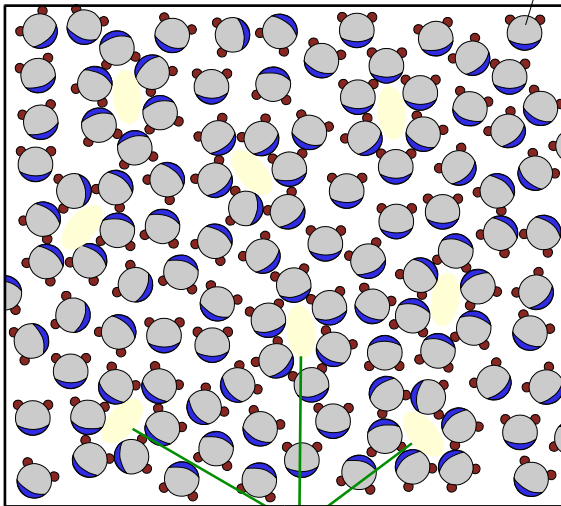
1. Addition of denser atoms
2. Disruption of rings of H<sub>2</sub>O
3. Denser packing of H<sub>2</sub>O in hydration sheaths

Atomic weight:

O	16.0
Na	23.0
Mg	24.3
Cl	35.5
K	39.1
Ca	40.1

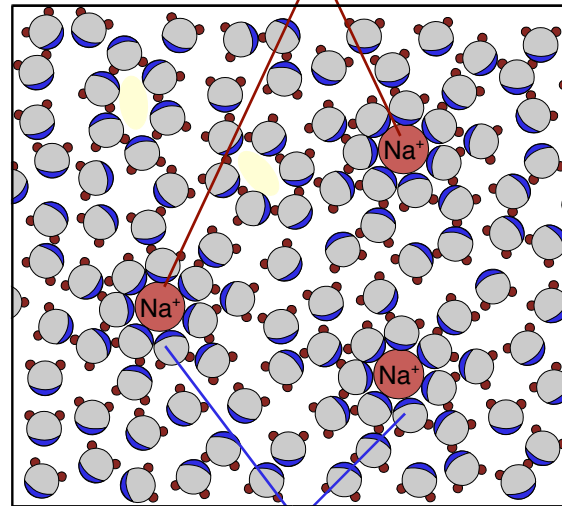


Pure water:



Voids held open by rings of H<sub>2</sub>O

Saline water:



Denser packing of H<sub>2</sub>O attracted to cations

Fewer rings of H<sub>2</sub>O

(and why, at S>24.7 ppt, there is no density anomaly with respect to temperature: abundant dissolved cations lessen formation of rings in cooling, but still liquid, H<sub>2</sub>O.)