

Cabbeling Two parent water masses of equal density mix and produce a water type denser than either original, which sinks. This is especially a case in polar regions, where δS is a determining factor in relative densities, and the water column stability is weak.

- Compressibility, \mathbf{K} : $\frac{\partial K}{\partial T} < 0$, or colder water is more compressible than warm water. This produces a rotation of σ_p lines in T-S space.

$\frac{\partial K}{\partial P} < 0$, or water at depth (under pressure) is less compressible than surface water, for the same change in pressure.

$\frac{\partial K}{\partial S} < 0$, or salty water is less compressible than fresh water – this makes sense if you think of the salt as taking up spaces left between water molecules.

- **Scales:**

$$\beta = O(1.4 \times 10^{-4}/^{\circ} \text{C})$$

$$K = O(4 - 5 \times 10^{-6}/\text{dbar})$$

$$b = O(7 \times 10^{-4}/\text{o}/\infty)$$