

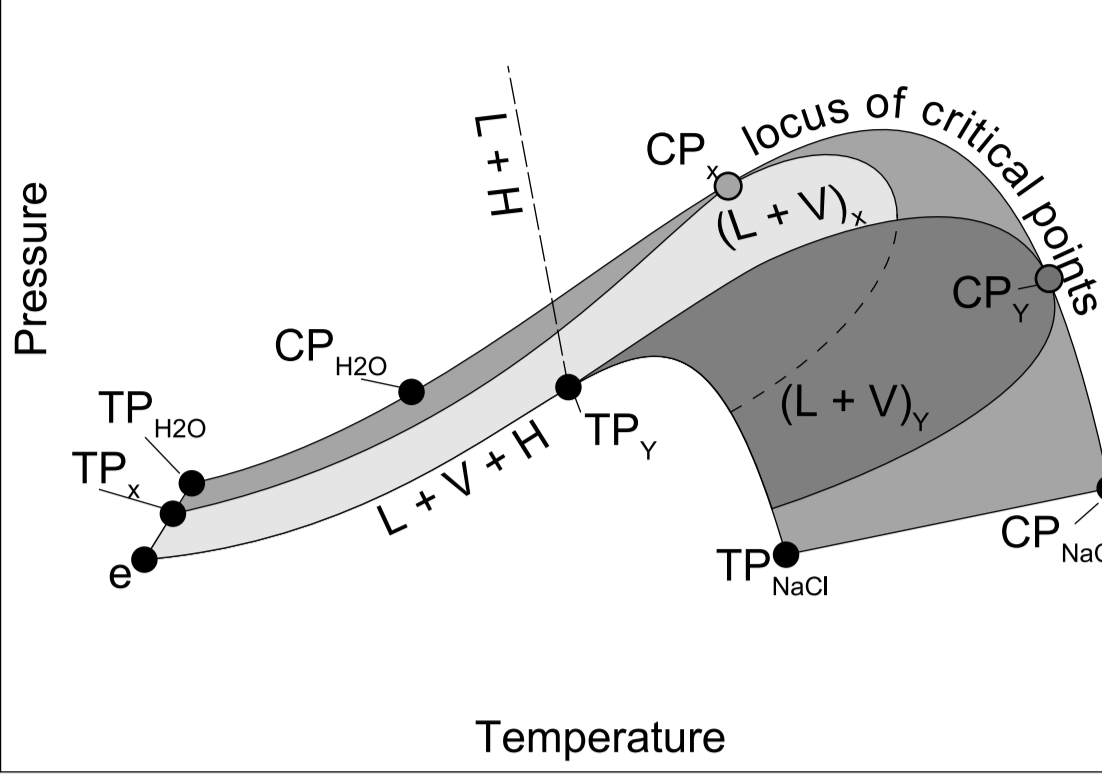
Fluid inclusion phase ratios, compositions and densities from ambient temperature to homogenization, based on PVTX properties of H₂O-NaCl

Yury I. Klyukin^{A,B}, Matthew Steele-MacInnis^A, Pilar Lecumberri-Sanchez^A and Robert J. Bodnar^B

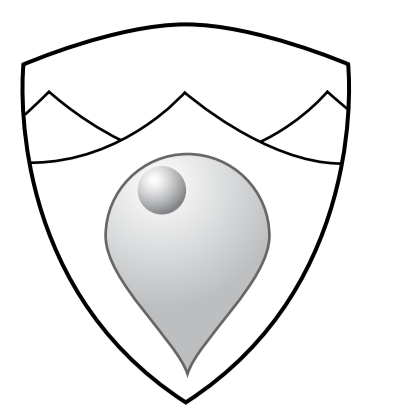
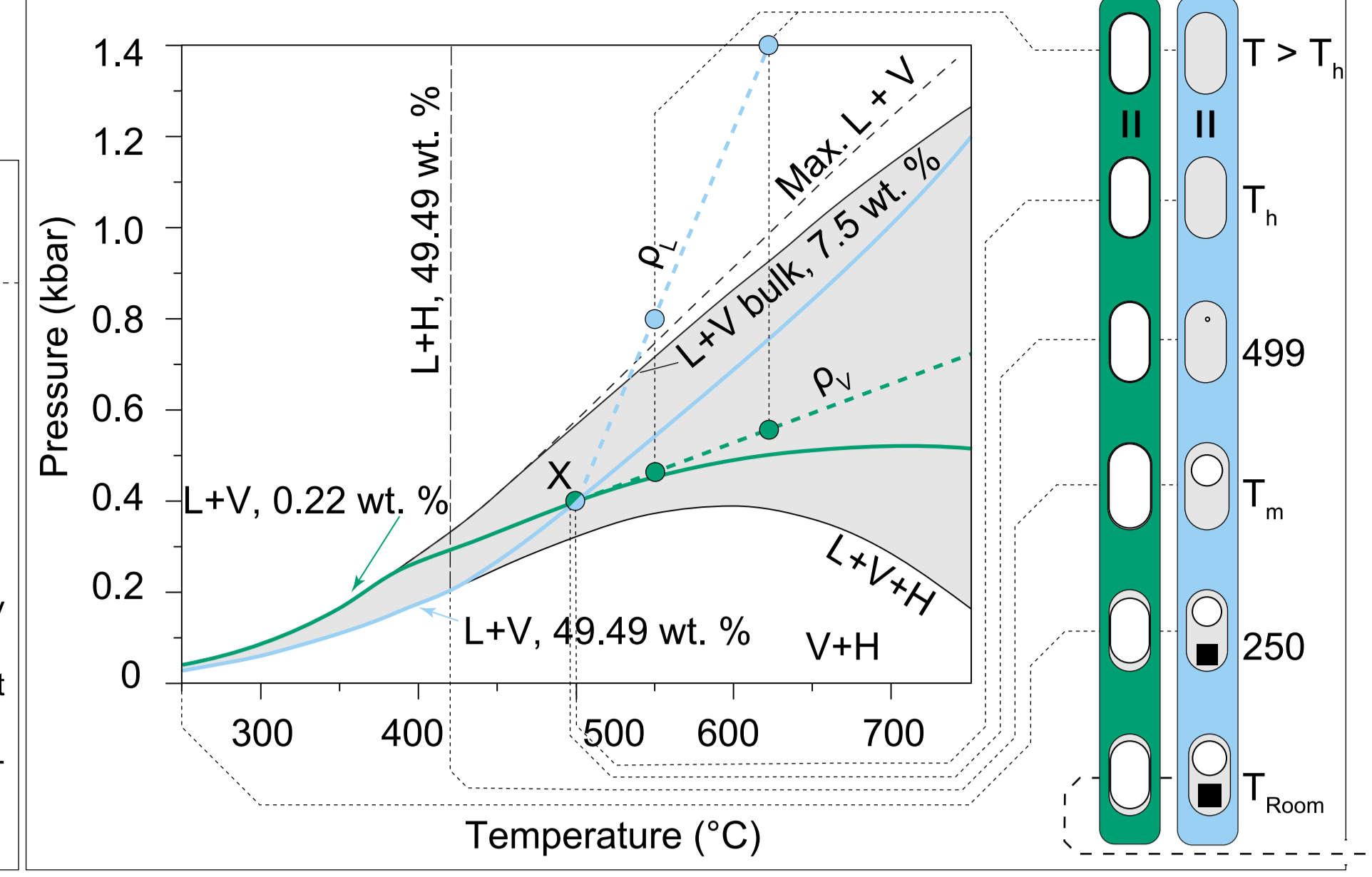
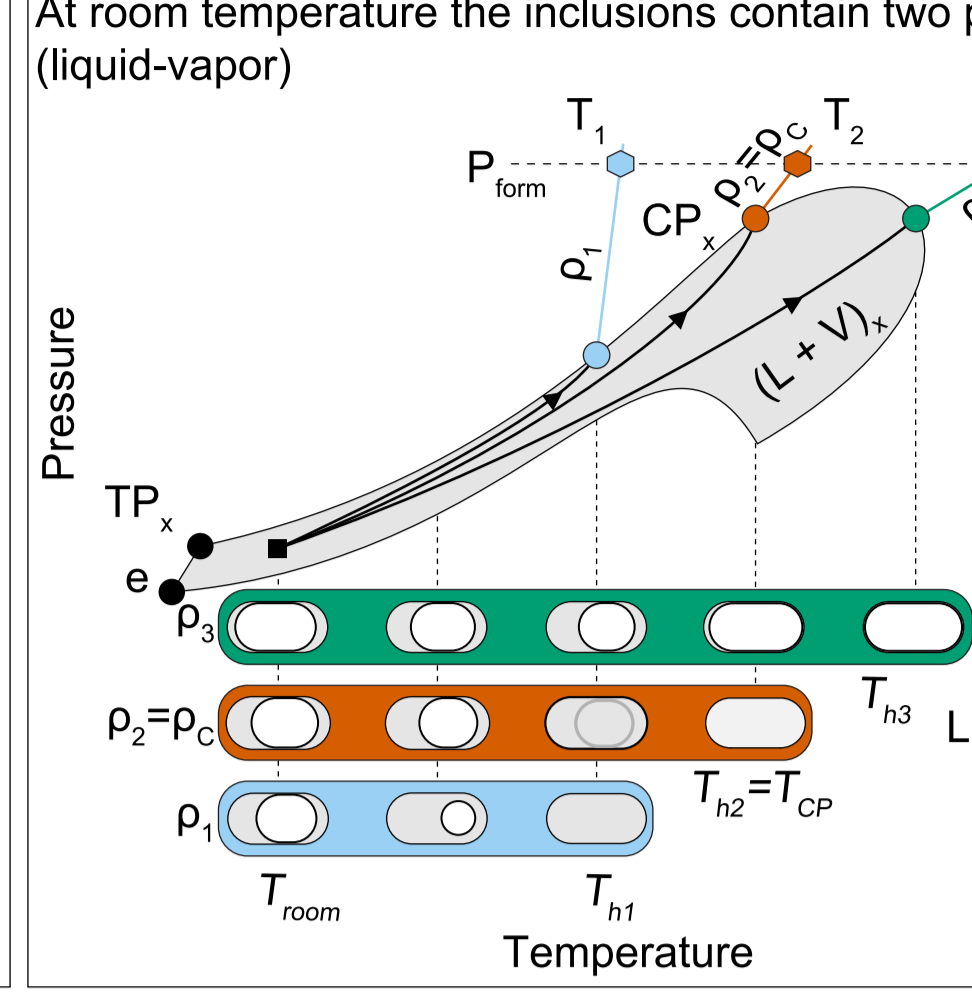
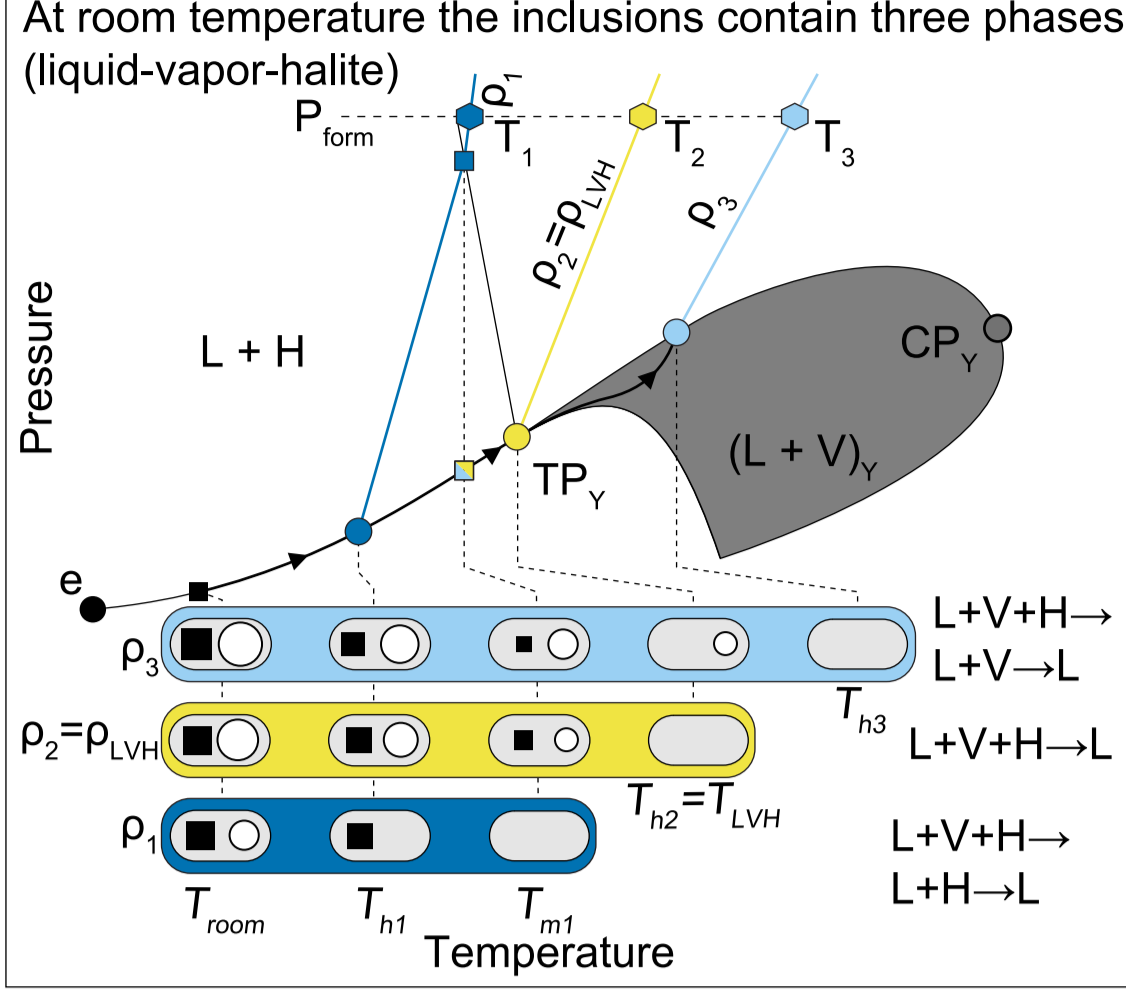
^A Department of Earth and Atmospheric Sciences, University of Alberta,

^B Department of Geosciences, Virginia Tech

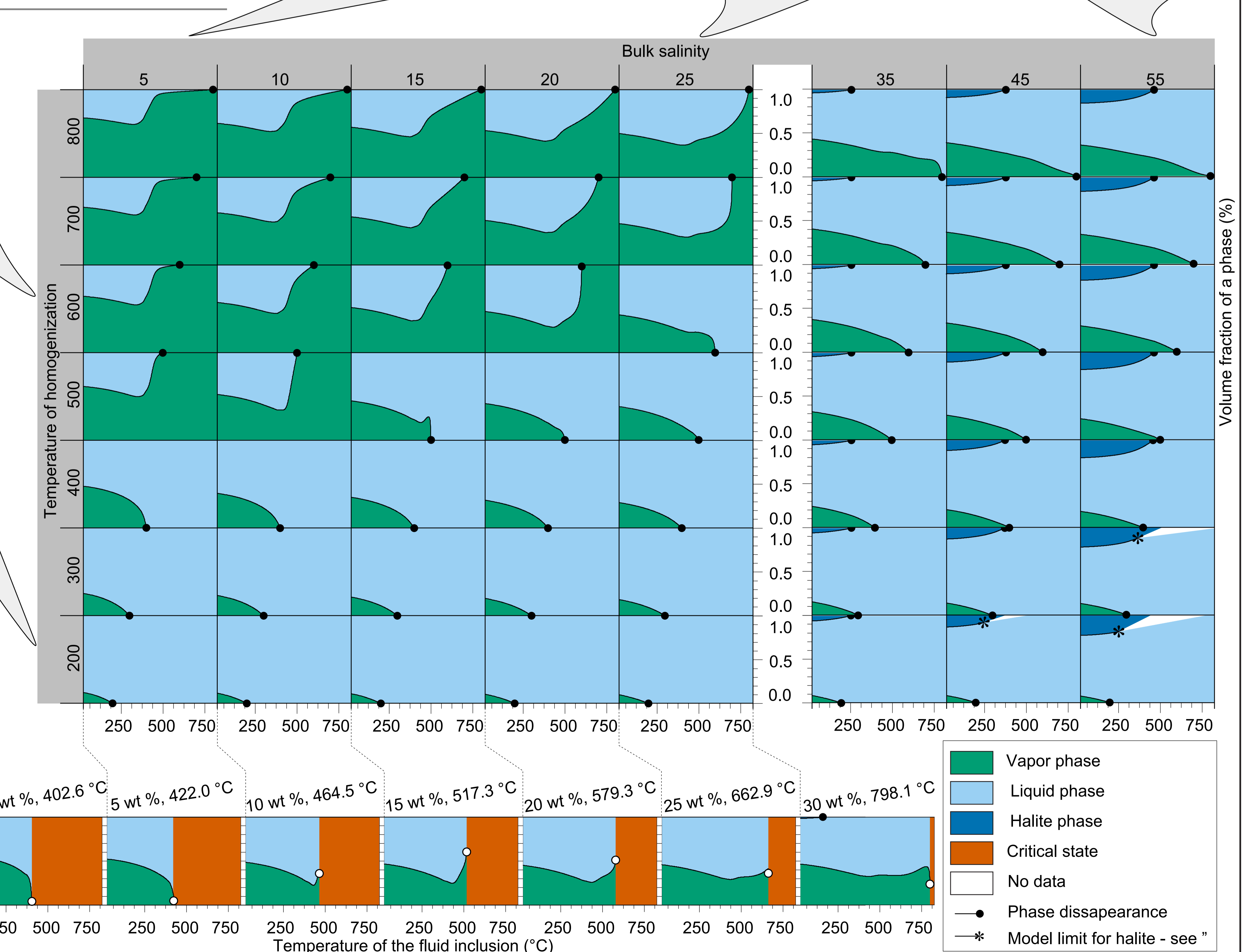
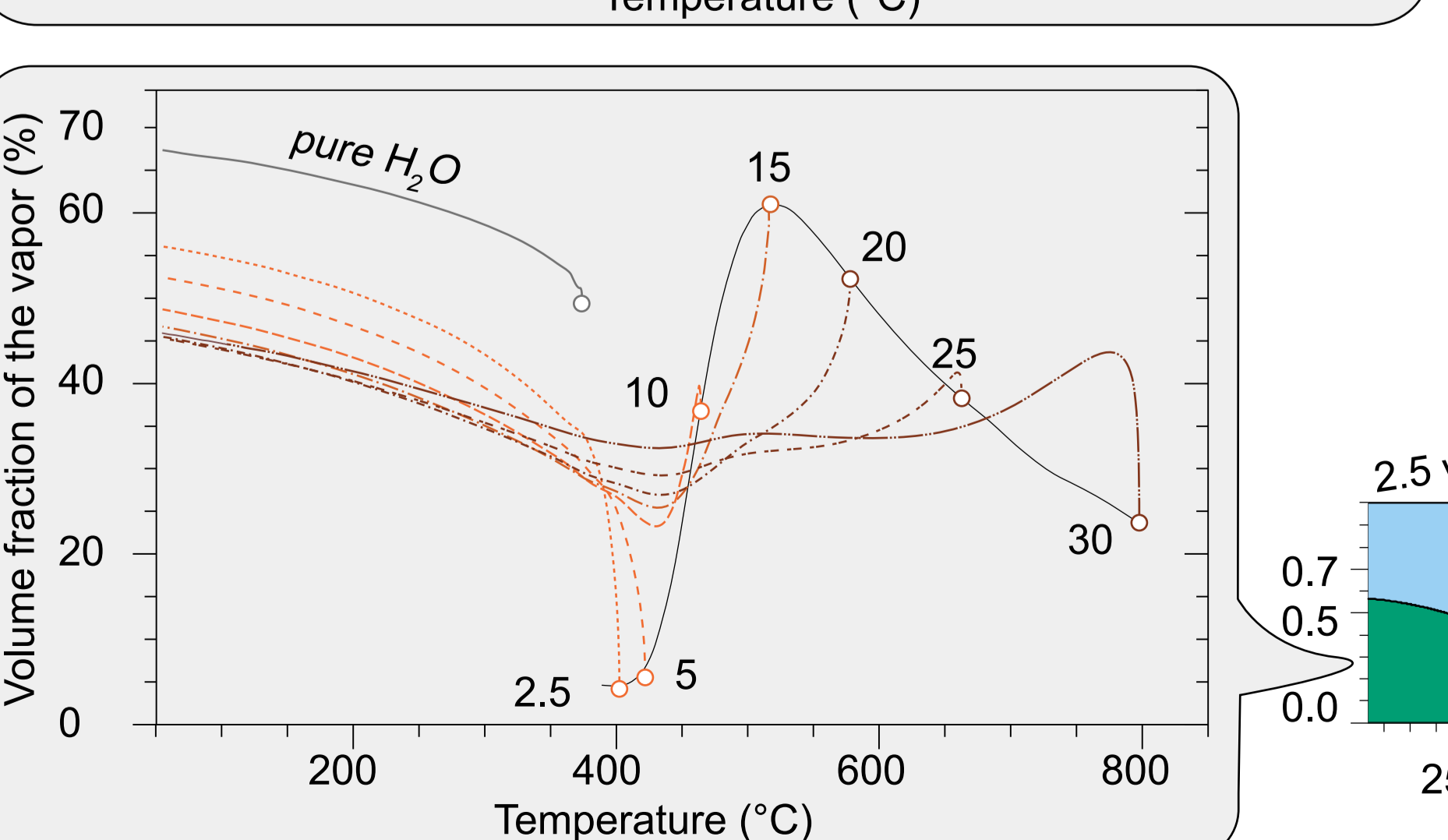
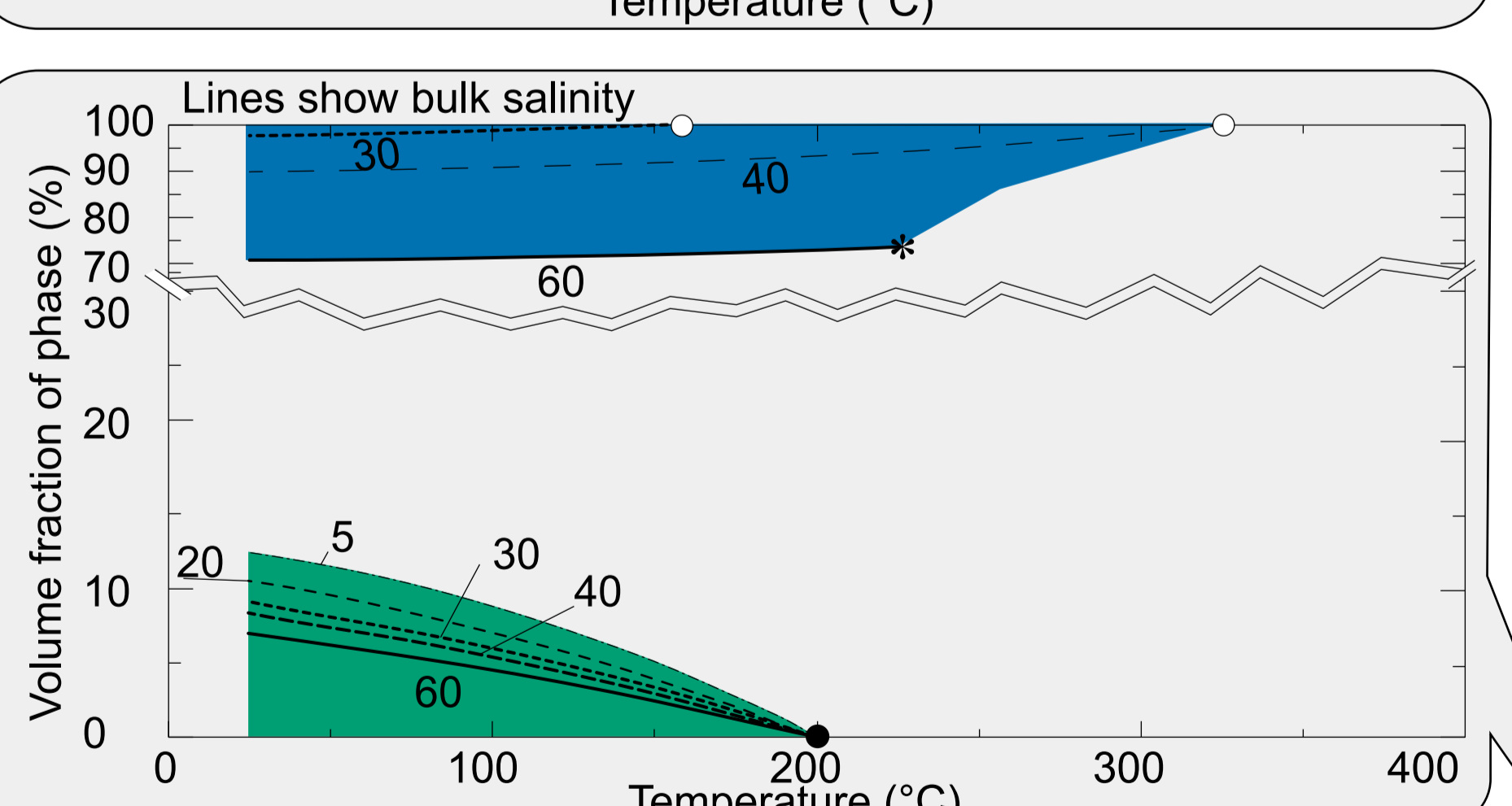
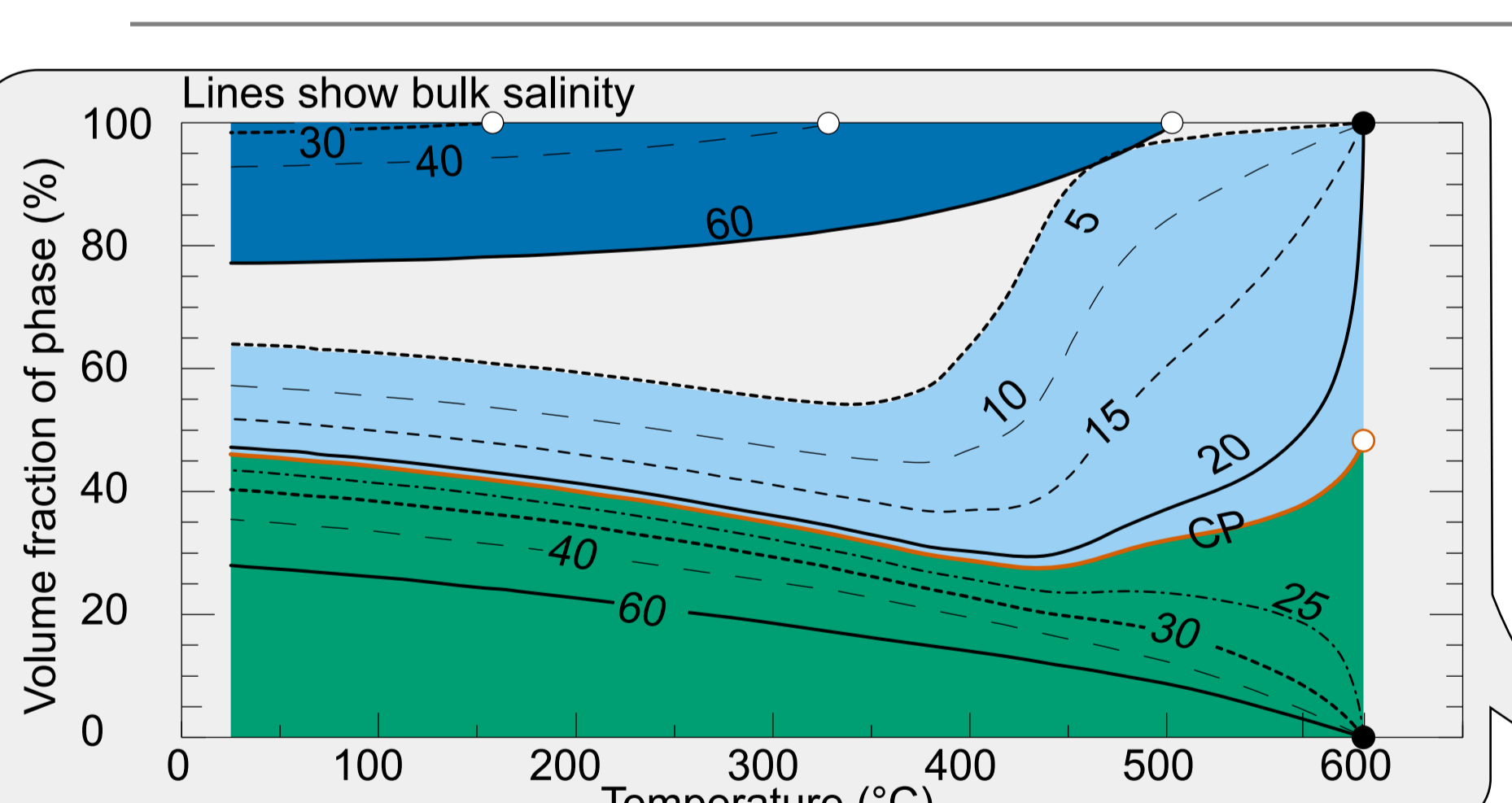
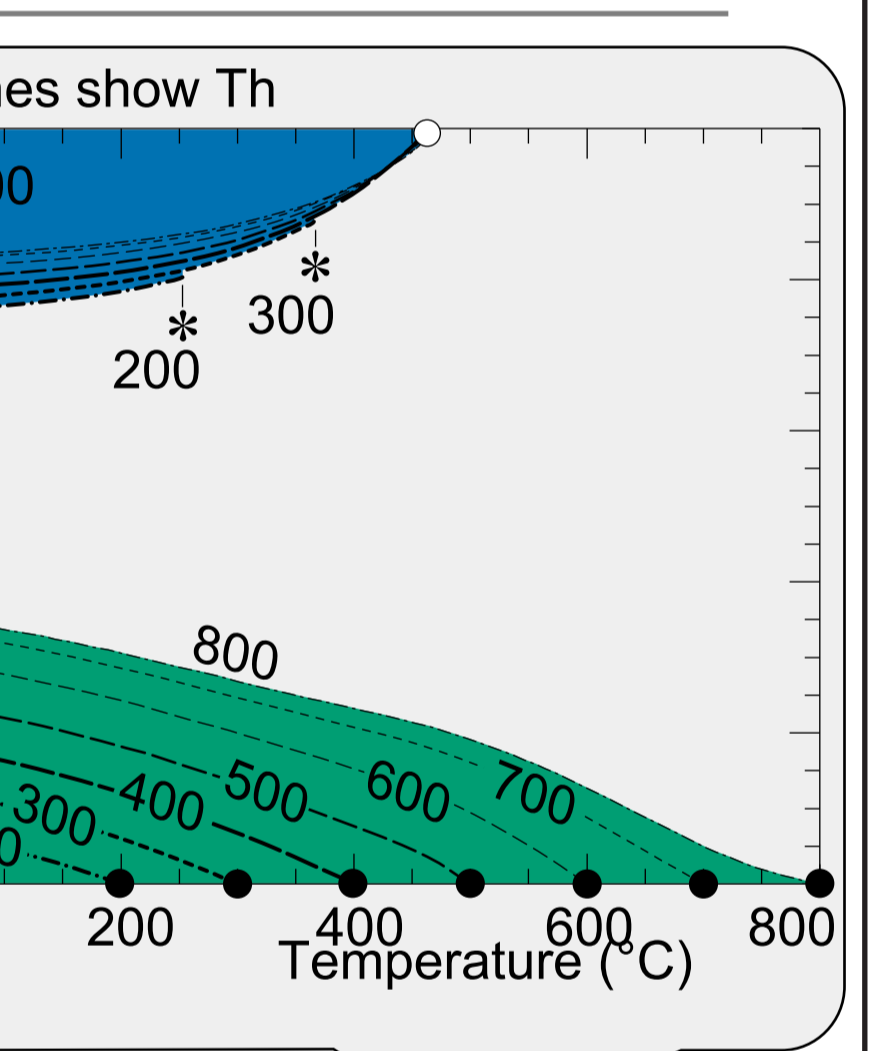
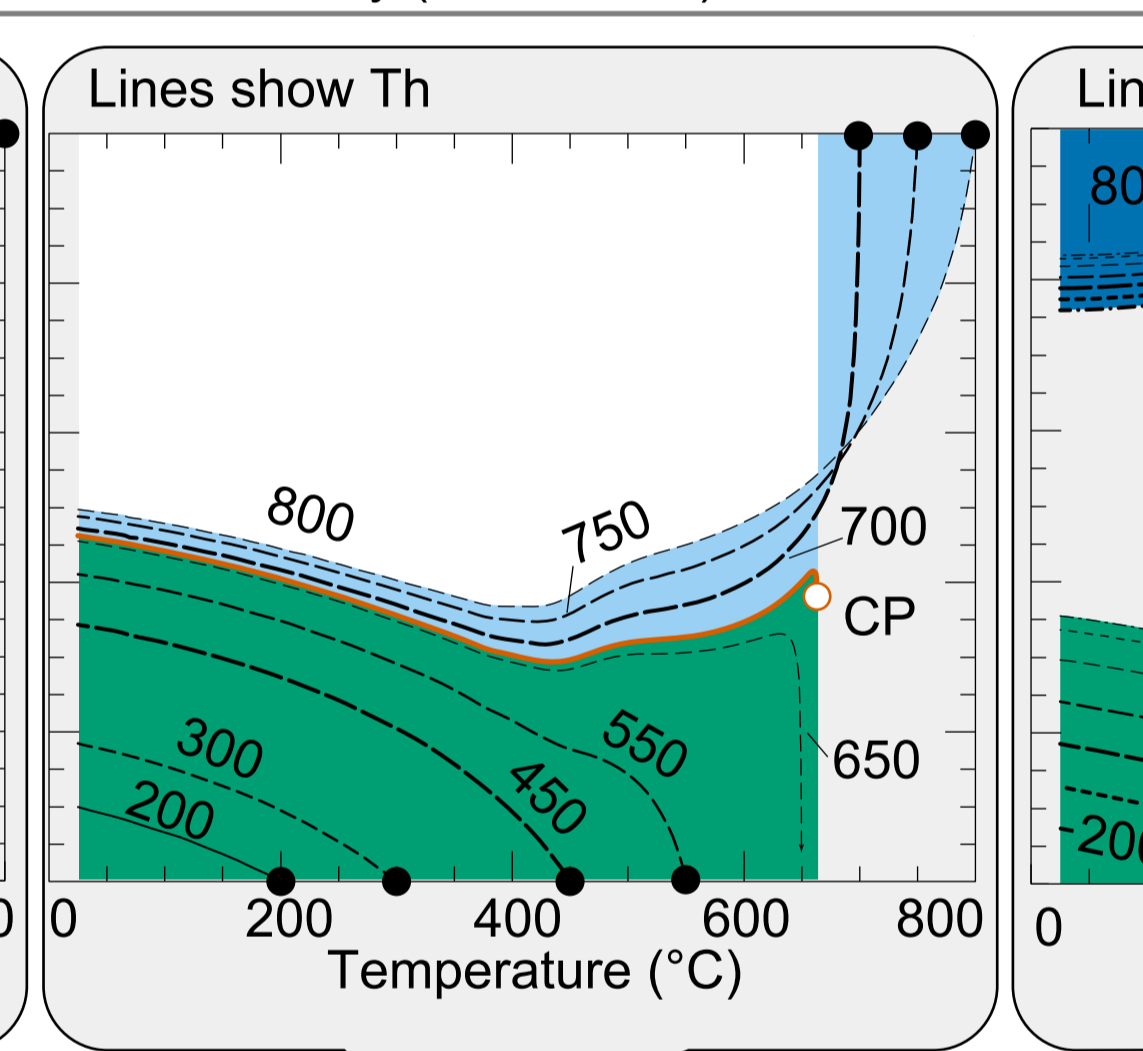
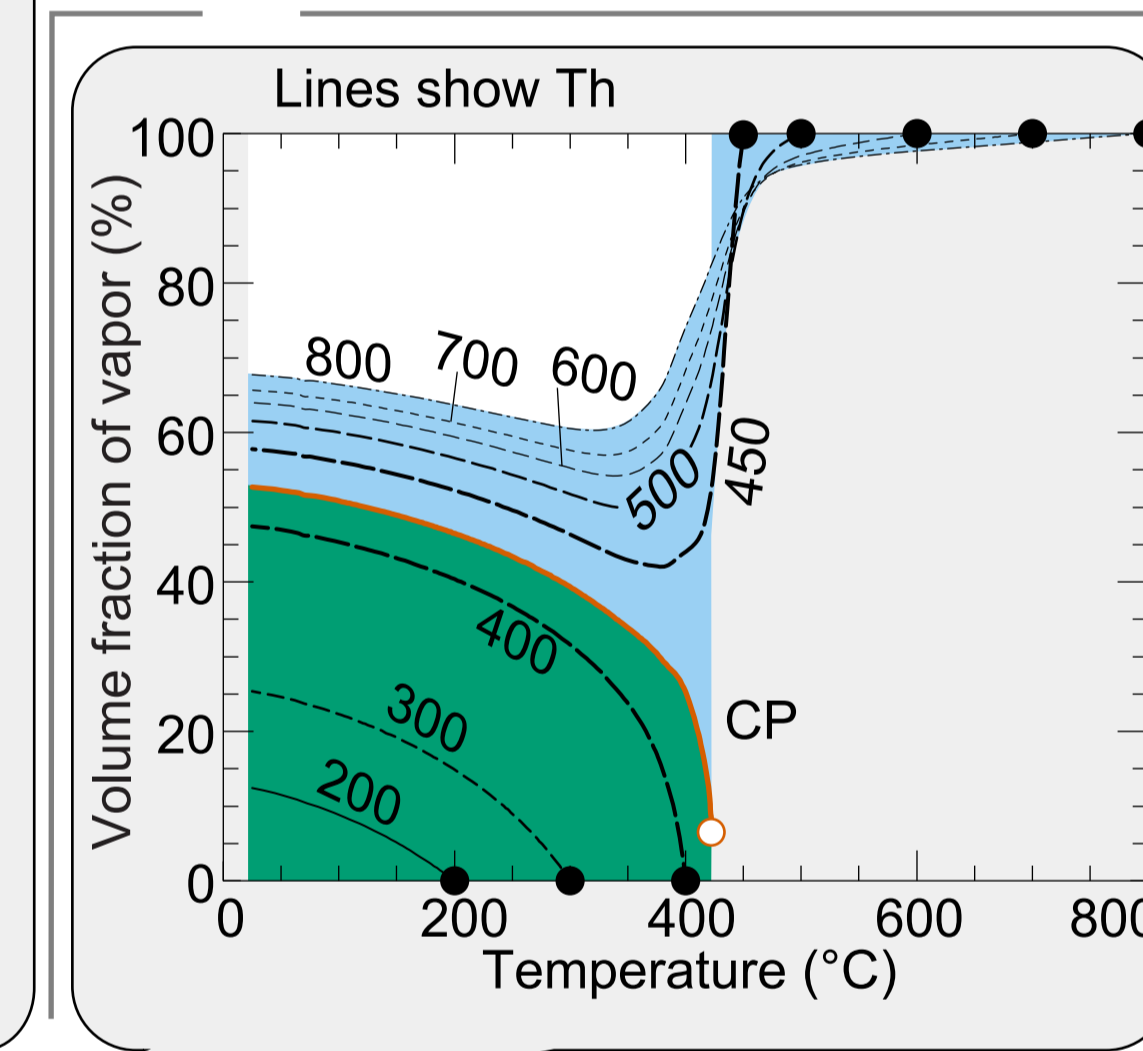
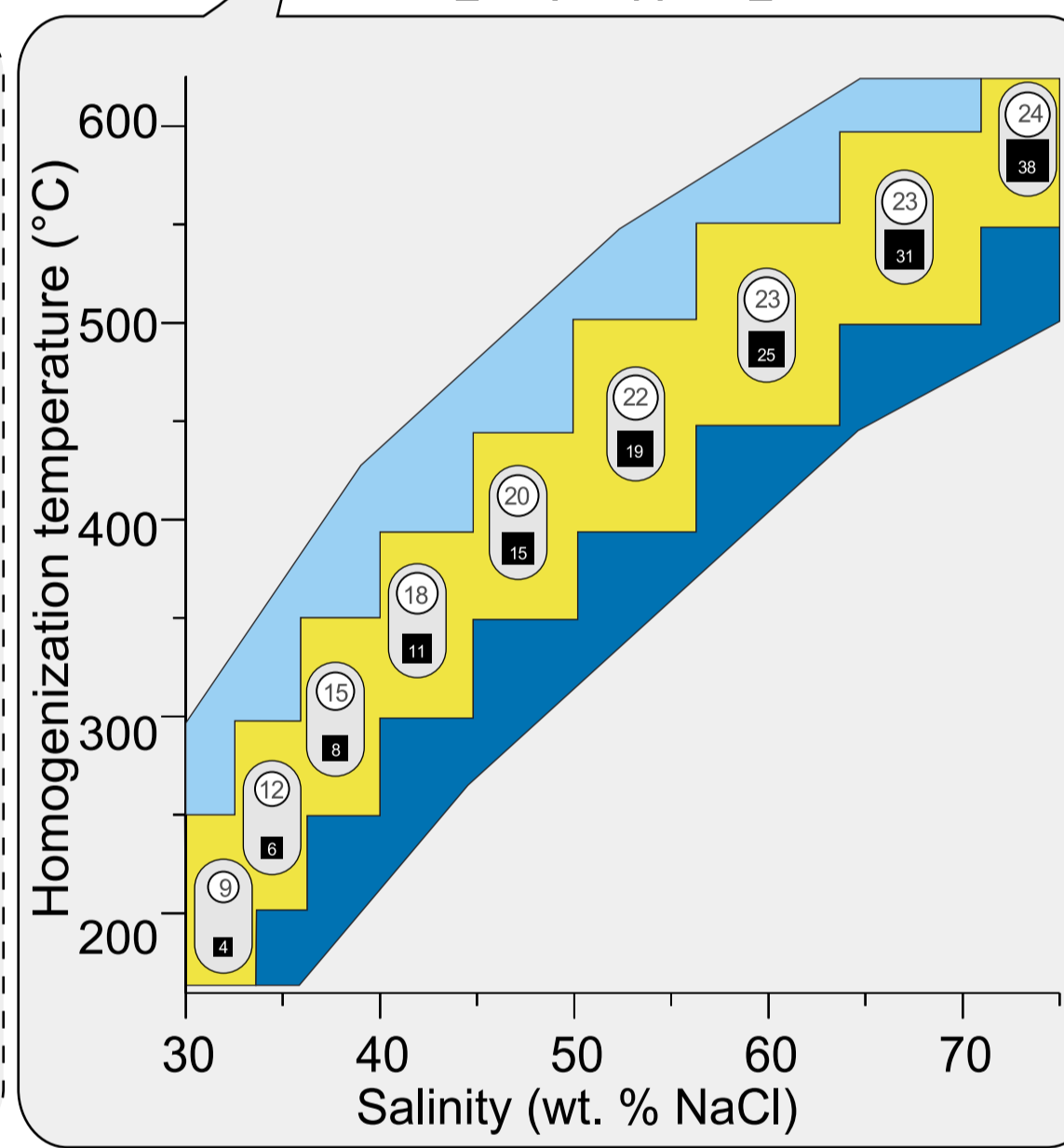
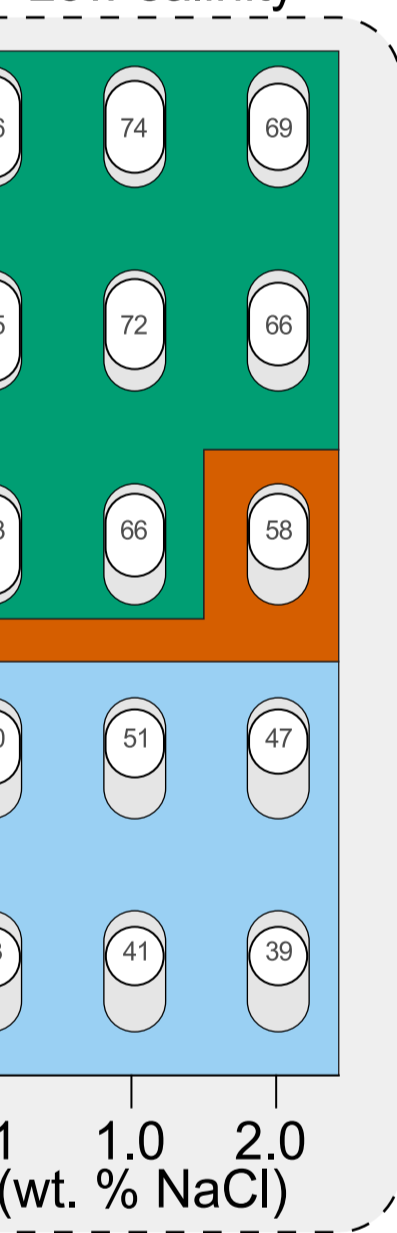
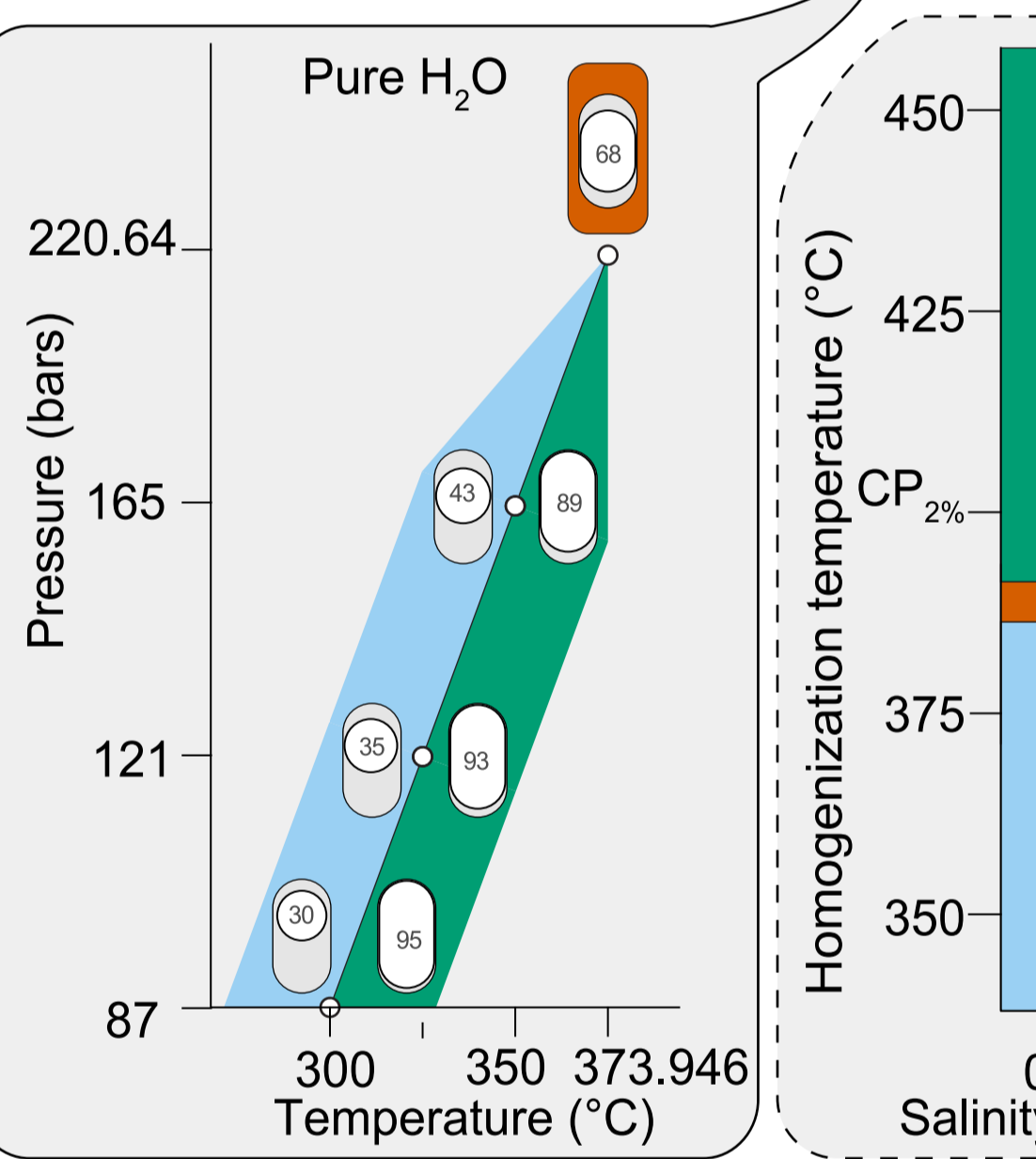
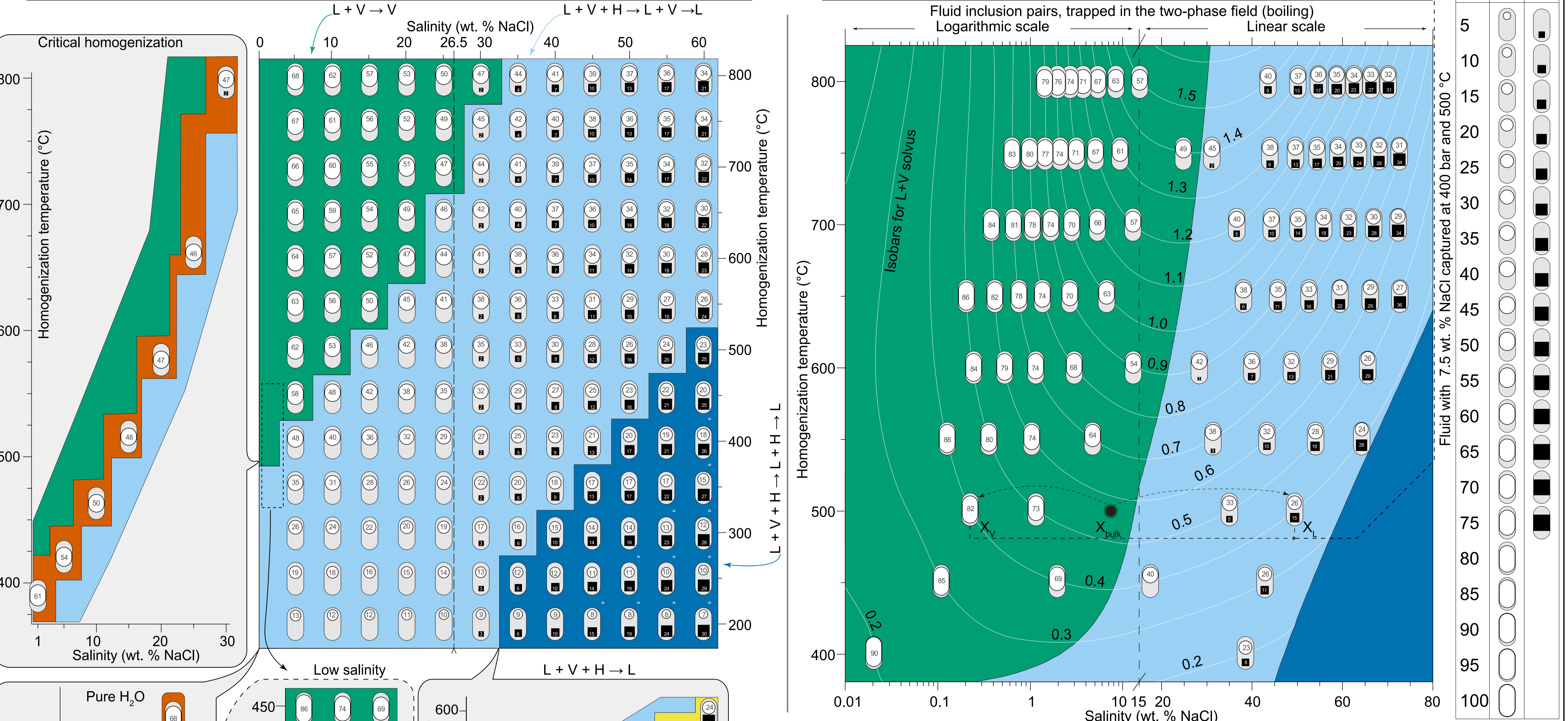
Schematic representation of the topologic features of the system H₂O-NaCl.
TP = triple point and CP = critical point, shown for pure H₂O and pure NaCl as well as for fluids with bulk composition "x" and "y", where "x" << "y".
e = the eutectic point, L = liquid, V = vapor, H = halite.



Schematic representation of the heating paths and phase proportions followed by fluid inclusions of bulk composition "y"



The inclusions here are the 2D projection of 3D cylindrical-prism-shaped inclusions with hemispherical ends, spherical vapor bubbles, and cubic halite crystals



Legend:
 - Vapor phase (green)
 - Liquid phase (light blue)
 - Halite phase (dark blue)
 - Critical state (orange)
 - No data (white)
 - Phase disappearance (black dot)
 - Model limit for halite - see "

* Halite melting occurs above the pressure limit of the model (5 kbar)