

The heat bath is
significantly larger

$$U^B, V^B, \vec{N}^B$$

$$(T^B = T_0, P^B = P_0, \tilde{\mu}^B = \tilde{\mu}_0)$$

$$U^\alpha, V^\alpha, \vec{N}^\alpha$$

$$U^\beta, V^\beta, \vec{N}^\beta$$