Temperature scale

T_{high}

we heat sodium acetate to a high temperature (90-95 °C) to dissolve as much material as possible

T_{freeze}

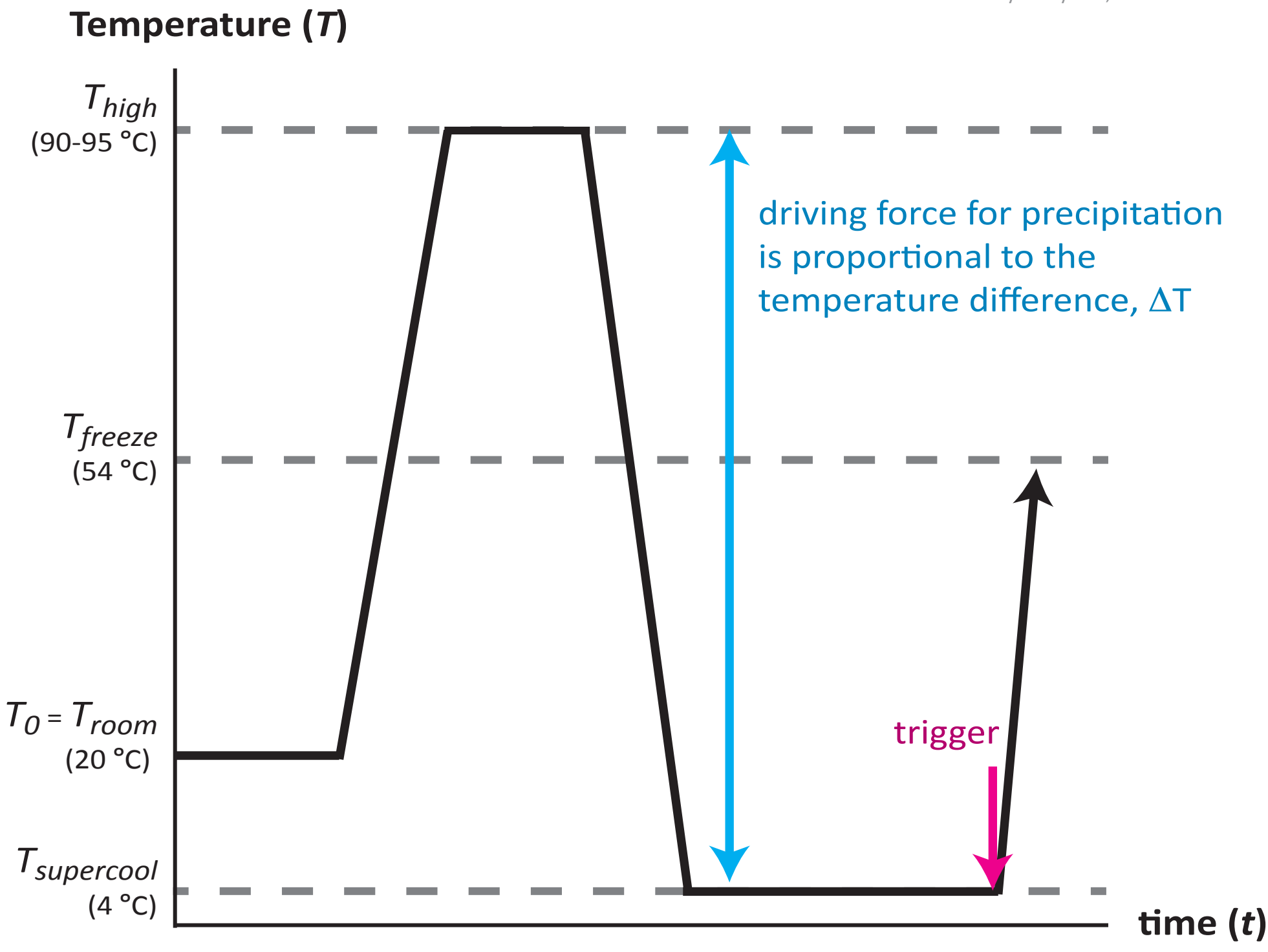
this is the freezing temperature (54 °C); for most solutions we can't cool below the freezing temperature without the material turning into a solid, but with sodium acetate we can

$T_0 = T_{room}$

initial temperature, which is usually room temperature (20 °C)

$T_{supercool}$

if we can cool the solution below the freezing point without the solution phase changing into a solid, the solution will be even more saturated and even more out of equilibrium; as a result, there will be an even higher driving force for it crystallizing, once we add a trigger; a refrigerator's temperature is around 4 °C


Temperature (T)
T high
(90-95 °C)
T freeze
(54 °C)
T 0 = T room
(20 °C)
T supercool
(4 °C)
driving force for precipitation
is proportional to the
temperature difference, ΔT
trigger
time (t)