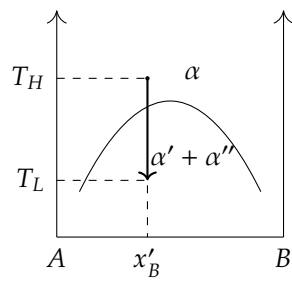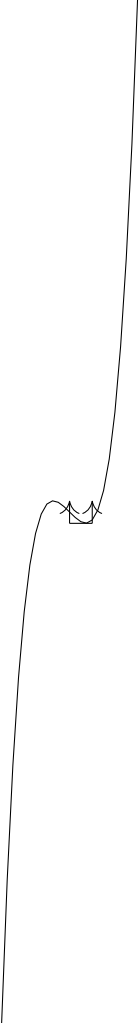# Spinodal Decomposition

Consider a binary alloy system with a miscibility gap, i.e.,

now, consider a transformation which must occur when an alloy with composition x_B' is quenched from temperature T_H to a lower temperature $T_L{}'$, i.e., $\alpha \longrightarrow \alpha' + \alpha''$.

In order to properly deal with the transformation, we need to analyze, not surprisingly, the G_{sol} vs composition relation at the transformation temperature T_L!

I.e.,

now, consider a transformation which must occur when an alloy with composition x'_B is quenched from temperature T_H to a lower temperature $T_L{}'$, i.e., $\alpha \longrightarrow \alpha' + \alpha''$.