

Advanced Thermodynamics
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Free energy of undercooled liquid, shape of nucleus

Questions:

1. What is the difficulty in calculating the driving force for solidification below the melting point?
2. Derive the expression for driving force for solidification of a liquid using Turnbull's approximation? What is the assumption in this model?
3. What are the various models that have been proposed for the driving force for solidification of a liquid?
4. How do you know the shape of a nucleus?
5. What is Gibb's γ plot?