

AMR-15 HEAT TREATMENT OF METALS

1. Iron-carbon phase diagram, heat treatment of steel,
2. Hardenability of steels. TTT diagrams,
3. CCT diagrams in steels, quench hardening & tempering of martensite
4. Martensitic transformation nature of martensitic transformation,
5. Lam distortion, nucleation & growth of martensite, athermal, isothermal & burst transformations
6. Spinodal decomposition Surface hardening processes,
7. Tool steels & their heat treatments, heat treatment of cast iron
8. Thermochemical & thermo mechanical treatments
9. Heat treatment of Ni-base super alloys & Ti alloys,

Reference Books:

1. Physical Metallurgy, Lakhtin

