

Phase

MSE-S203

(Phase Equilibria in Materials)

Ankur Katiyar

**Assistant Professor, MSME Department
UIET, CSJM University**

Phase Equilibria in Materials

Phase

A phase in a material is a region that differs in its microstructure and/or composition from another region.

Identify the *Phases* of these?

Austenite

Pe~~X~~lite

α -Ferrite

Cementite

δ -Ferrite

Lede~~X~~urite

Phase Equilibria in Materials

Phase

Physically distinct + Chemically Homogeneous
(Separate) (Same Concentration)

Let's consider *Pearlite* for example

During cooling of *austenite* (γ -ferrite) having 0.8%C at constant eutectoid temperature (727°C) undergoes eutectoid transformation to form a mixture of alternate lamellae of ferrite (0.02%C) and cementite (Fe_3C).

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