doi:10.1351/goldbook.P04748

polymorphic transition

A reversible transition of a solid crystalline phase at a certain temperature and pressure (the inversion point) to another phase of the same chemical composition with a different crystal structure.

Note:

In a liquid-crystal transition, this term refers to phase changes in the smectic state or columnar discotic state.

Examples:

1. The transitions of SiO_2 (quartz-type) at 1143 K to SiO_2 (tridymite-type), and at 1743 K to SiO_2 (cristobalite-type).
2. The transition of β-AgI (wurtzite-type structure) to α-AgI (body-centred-cubic structure) at 418 K. Synonymous with enantiotropic transition.

Source:

PAC, 1994, *66*, 577 *(Definitions of terms relating to phase transitions of the solid state (IUPAC Recommendations 1994))* on page 588

