

second-order transition

A transition in which a crystal structure undergoes a continuous change and in which the first derivatives of the Gibbs energies (or chemical potentials) are continuous but the second derivatives with respect to temperature and pressure (i.e. heat capacity, thermal expansion, compressibility) are discontinuous.

Example:

The *order-disorder transition* in metal alloys, for example, CuZn.

Synonymous with continuous transition.

1994, 66, 589