

## graphitization

A solid-state transformation of thermodynamically unstable non-graphitic carbon into graphite by means of heat treatment.

Note:

Graphitization is also used for the transformation of metastable diamond into graphite by heat treatment, as well as in metallurgy for the formation of graphite from thermodynamically unstable carbides by thermal decomposition at high temperatures. Such uses of the term graphitization are in line with the above definition. The use of the term graphitization to indicate a process of thermal treatment of carbon materials at  $T > 2500$  K regardless of any resultant crystallinity is incorrect.

**Source:**

PAC, 1995, 67, 473 (*Recommended terminology for the description of carbon as a solid (IUPAC Recommendations 1995)*) on page 493