

coalification

A geological process of formation of materials with increasing content of the element carbon from organic materials that occurs in a first, biological stage into peats, followed by a gradual transformation into coal by action of moderate temperature (about 500 K) and high pressure in a geochemical stage.

Note:

Coalification is a dehydrogenation process with a reaction rate slower by many orders of magnitude than that of carbonization. Some specific reactions approach completion before others have started. The dehydrogenation remains incomplete. The degree of coalification reached by an organic material in the process of coalification increases progressively and can be defined by means of the measured C/H ratio and of the residual contents of oxygen, sulfur and nitrogen.

Source:

PAC, 1995, 67, 473 (*Recommended terminology for the description of carbon as a solid (IUPAC Recommendations 1995)*) on page 485