Controlled laser synthesis of carbon nanostructured at laser action

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Synthesis of carbon nanofiber and nanofibers by deposition of a material on a substrate at laser action on carbon materials is widely enough used method. Depending on experiment conditions (vacuum or buffer gas, presence of the catalyst, etc.) and used laser sources probably obtaining of various types carbon nanomaterials - single-layered / multilayered and nanotubes with diameters from 10 up to 100nm.

At the same time in a number of works laser action on carbon materials in atmospheric air and-or in oxygen is investigated, and opportunities of the directed change of morphological properties obtained nanostructures are discussed. Such control of properties of besieged materials at synthesis nanostructures is especially perspective at use additional quazi-static external fields.

There are results in the given work on obtaining carbon nanofibers and nanoclusters at laser action on the graphite samples placed in constant electric and-or a magnetic field.



Carbon nanofibers obtaining in quazi-static external fields on a substrate.