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Application of Magnetite Nanoparticles for Synthesis of Carbon Nanotubes by The CVD Method

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Nanotechnology in recent years has become one of the most promising and fastest growing areas of science. The use of nanomaterials in medicine and pharmacology is a priority, which allows to solve the most urgent problems in these areas. Also, nanomaterials are used to improve certain characteristics of the materials. Such as shielding properties of electromagnetic radiation, to improve the mechanical properties and to obtain materials with specific optical properties. Currently, for the exploration and use of nanomaterials, there are many methods of their synthesis. Synthesis nanomagnetite chemical method is an easy, affordable and fast. The resulting particles range in size from 10 nm to 30 nm. spherical shape and have a small spread of sizes. Nanomagnetite can play the role of the first nanorobots to deliver drugs to specific locations of the body, using an external magnetic field exposure. Also, due to the magnetic properties can be added nanomagnetite in the structure of the polymer and a polymer-magnet, it will receive a very good insulating material of the electric current with magnetic properties. From this it can be assumed that the use of additives in the form of very acceptable. As well as their use as a catalyst for synthesizing carbon nanotubes CVD method. The synthesized carbon nanotubes can be used as additives to create a shielding material from electromagnetic radiation.