

Magnetic Hydrodynamics as a Tool of Describing the Mechanism of Carbon Nanotubes Production

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Abstract: Mathematical modeling of electric-arc synthesis of carbon nanotubes aimed at determination of movement trajectories of arc plasma components and evaluation of their effect on formation of carbon nanotubes on cathode is carried out. In order to find out the trajectories it is offered to use magnetic hydrodynamic description of charged content of plasma. The area of real distribution of carbon nanotubes is found, the comparison with calculated areas of carbon ions concentration is made.
