

REVIEW

Diploma: 110 p., 13 tables, 56 figures, 48 literary sources.

CARBON NANOTUBES, PLASMA DEPOSITION FROM GAS PHASE DEPOSITION.

The object of research — physical processes that determine the formation and growth of carbon nanotubes by plasma components arc spraying.

Subject research - the carbon nanotubes grown on substrates with SiO_2 , Al_2O_3 , titanium based alloys.

The purpose of research — to establish regularities of plasma components impact on the growth of carbon nanotubes by chemical vapor deposition.

Research methods — scanning electron microscopy, optical microscope, qualitative analysis of structures of carbon nanotubes by applying Image Pro 4.5 software, x-ray analysis of catalytic centers, carbon nanotubes, substrates.

Research results — features of the carbon nanotubes structures formation by varying deposition parameters of the HHB-6.6 unit.

Application - electronics, displays, gas sensors.