Nanocomposite carbonaceous – Me (Me – transition metal Ni, Pd) films for different applications

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In the presentation we will show the results of our technological studies of carbonaceous-Me films (Me – transition metal Ni, Pd). These technologies were elaborated in Tele- and Radio Research Institute during realisation of several projects [1-5]. The first group of such films are carbonaceous – Ni nanocomposite films (Fig.1a) which are initial films for carbon nanotubes films (Fig.1b). The second group of films are carbonaceous – Pd films (Fig.1c). In these type of films the size, form and number of Pd nanograins deposited in carbonaceous matrix depends on technological process parameters. We will present the influence of technological parameters on the structure and properties of films, especially taking into account their applications aspect.

![Figure 1: SEM images of a) carbonaceous – Ni film; b) carbon nanotubes film; c) carbonaceous – Pd film](image)

**References**

[3] Development of technology for a new generation of the hydrogen and hydrogen compounds sensor for applications in above normative conditions. Operational Program Innovative Economy, 1. Research and development of modern technology, 1.3 Project support R+D for the benefit of entrepreneurs implemented by scientific entities. Decision number: UDA-POIG 01.03.01-14-071/08, (01.07.2009 – 30.06.2014)

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