METAL OXIDE NANOCOMPOSITES FOR GAS SENSORS

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Thin film nanocomposites on the base of tin dioxide were prepared by reactive ion-beam sputtering of composite target. Investigation of element composition and morphology of the samples were carried out. Influence of impurity content on the change of average grain size of polycrystals in the film was analyzed. Gas sensitivity of film nanocomposites on the base of tin dioxide to different gases was measured. It was found that the temperature of maximal gas sensitivity of nanocomposites decreases in comparison with undoped tin dioxide films.