

## ABSTRACT

**Qualification paper:** 90 pages, 21 figures, 12 tables, 58 references.

**The aim of the work:** to study phase transformations and electrical properties of bilayer thin-film systems Ag/Ti during annealing in vacuum.

**The object of the research:** Ag/Ti double layer of nanoscale structures.

**Methods:** TEM, HEED and resistometry.

**Practical value:** The results may be applied to the development of technological processes in biomedicine and electronics.

**The results and their novelty:** Phase transformations and electrical properties in the Ag/Ti two-layer nanoscale structures by electron microscopy obtained by condensation in a vacuum studies by TEM, HEED and resistometry. The results are of practical importance for the development of new materials in biomedical engineering and thin film electronics.

PHASE TRANSFORMATION; INTERDIFFUSION; THERMAL STABILITY; NANOSCALE; Ag/Ti; SPUTTERING; DOUBLE LAYER; MICROSTRUCTURE; ELECTRON DIFFRACTION; MORPHOLOGY ELECTRICAL RESISTIVITY.