

## ABSTRACT

**Report of pre-graduation practice:** 43 pages, 17 figures, 4 tables, 49 references.

**The aim of the work:** to study experimental and theoretical studies of phase transitions in Ag/Ti two-layer thin-film system during annealing in vacuum.

**The object of the research:** double layer compositions of nanoscale structures of Ag-Ti during annealing.

**Methods:** a method of electron microscopy to the light and electron diffraction.

**Practical value:** The results have practical use in technological processes of experiments in biomedicine.

**The results and their novelty:** The phase transformation in the Ag/Ti two-layer nanoscale structures by electron microscopy obtained by condensation in a vacuum. The results are of practical importance for the development of new materials for use in biomedical engineering and thin film transistors.

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