

ABSTRACT

Thesis: 57 pages, 17 figures, 9 tables, 25 literary sources.

DETERMINATION OF THE PARAMETERS OF THE AlCuFeCrNiCo and CuFeCrNiCo HIGH-ENTROPIC ALLOYS MICRO-STRUCTURE

Purpose: Determination of the features of the structure and properties of vacuum condensates of high entropy alloys of Al-Cu-Fe-Cr-Ni-Co and Cu-Fe-Cr-Ni-Co systems.

Object of the research: Al-Cu-Fe-Cr-Ni-Co and Cu-Fe-Cr-Ni-Co alloy systems. On the basis of the research results it can be argued that functional materials on the AlCuFeCrNiCo basis are promising.

Experimental methods: optical microscopy, scanning electron microscopy, energy dissipation analysis of chemical composition, determination of microstructure parameters using X-ray diffraction analysis, X-ray structural analysis of texture using pole shapes.

Practical significance: the results obtained are of practical importance for the development of new functional materials based on high entropy alloys.