

## ABSTRACT

Thesis: 97 pages, 31 drawings, 8 tables, 25 sources of literature.

Aim elucidate the influence of process parameters on the microstructure and properties of electrode materials WC + 20 (wt.%) Co and WC + 40 (wt.%) Co.

Research methods: microstructural and microscopic analysis.

Research subject: superficial work-hardened layers on steel 45 after implement the core alloy anodes electrospark treatments that VK 20 VK 40.

Scientific novelty: found that the structure and composition of the electrodes based on tungsten carbide with high content of binder can be qualitatively reproduced in the coating using spark alloying techniques that were used in this study.

Practical meaning: found that the structure and composition of the electrodes based on tungsten carbide with high content of binder can be qualitatively reproduced in the coating using spark alloying techniques that were used in this study.

Keywords: KINETICS OF FORMATION OF SURFACE AREA, MULTISTAGE PROCESS, ALLOYING, REVERSE MASS TRANSFER.