

## **ABSTRACT**

The work contains 68 pages, 12 figures, 12 tables, 30 references to the literature data.

The object of study durable coating based on TiN.

The aim is to study the wear resistance of steel with the coating.

Methods and apparatus: sputtering was conducted at the facility "Bulat B1-B". The cathode is made of material rozpylyuvanoho Ti. Calculations hardness, fracture coatings, investigated microstructure, chemical composition, drip phase coating.

In the coating obtained under high hardness, fracture, reducing the size droplet phase, which greatly improves the properties of the coating.

Keywords WEAR-RESISTANT COATINGS, COATINGS TiN, MICROSTRUCTURE, PHASE COMPOSITION, HARDNESS, PHASE DRIP, CRACK.