

Vacuum ion-plasma technology for creation antifriction coatings with solid lubricants properties

Area of activity	Machine building, motor building, medicine, space technology, vacuum technology
1. Main purpose of technology	To increase the operation life of details and friction pairs, working in the condition of impossibility of lubricants use.
2. Scientific achievements, directed towards the development of technology and organization-developer	Investigation of structure and properties of antifriction coatings, obtained at variation physical and technological parameters of ion-plasma sputtering of complicated cathodes of Cu, Cr, Fe, Ni, Mo, W, Sn metals; National Technical University of Ukraine «Kyiv Polytechnic Institute», Metal Physics Department

Short description of technology: Vacuum ion-plasma coatings deposition by magnetron sputtering method with using developed coaxial type facility allows to obtain coatings of specified stoichiometric composition (from Cu, Cr, Fe, Ni, Mo, W, Sn metals) with solid lubricants properties.

Novelty: The creation and using of developed coaxial-type facility allows to deposit coatings with exactly specified stoichiometric composition, which increase service characteristics of machine parts and engines.