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Analysis of Methods of Sinking Alloys on the Surface of Items

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Annotation: Based on the chemical precision of metals, the oxidation reaction of the dissolved returner lies in the electrolyte, resulting in the return of metal on a catalytic active surface free of electrons. The more positive the standard potential of metal, that is, the more non-metallic it is, the wider the ability to choose a returner. The main condition for the reaction to occur is its autocatalytic character, which means that the sedimentation metal will depend on its ability to catalytically accelerate the return process.

Kalit so'zlar: electrolyte, decorativ, antifriction, potential, gypophosphite, gidrazine, formaldegid, borgidrid.

Electrochemical precision of alloys is one of the most effective ways to improve the quality of metal coatings. Often, coating with alloys is characterized by high corrosion resistance and good decorative properties, hardness, absorption and heat resistance rather than coating with individual metals [1].

There are also electrochemical coatings that demonstrate their individual physical, mechanical, and mechanical properties, demonstrating magnetic conductivity, high conductivity, hesilicity, semiconductor, and other antifrication properties.

If the charging potential of two different metal ions (E_1 and E_2) is equal or close, their return can be observed together, then the following equation will be appropriate.

$$E_1^0 + \frac{RT}{z_1F}\ln a_1 + \tau_1 = E_2^0 + \frac{RT}{z_2F}\ln a_2 + \tau_2$$

In this case, the standard potential of $E°1$ and $E°_2$ metals; the activity of metal ions a_1 and a_2; and the power of $_{1,2}$; Oxidation levels of z_1 ,z 2-ions.

If the extraction potential of the two metals varies, several methods are used to bring them closer [2].

The most effective way to bring potential closer is to form solid complex ions of extracted metals. The resulting embryo was allowed to develop in nutrients and then inserted into her womb, where it implanted.

Such complex derivatives are more often used in quality, diphosphate, fluoride, stainless, ammonia, and synthetic electrolytes. Additionally, the charging reaction of electromusbated ions is used by surface active substances that have the ability to stop stronger than electromagnetic metal.

When sinking alloys, it is also possible to increase the rate at which ions are charged, i.e. to facilitate the formation of alloy (polarization) and to reduce the speed (high salvation), i.e. to make it difficult for ions to lose their charging. The physical and chemical properties of alloys depend on the relative amount of components contained in it. The resulting embryo was allowed to develop in nutrients and then inserted into her womb, where it implanted.

Electrolytic sinking of alloys uses thermal alloy anodes and separate metals that are part of the alloy. Its salt is added to the electrolyte to compensate for the reduction of the second metal ions when using anode made of the same metal.

The resulting embryo was allowed to develop in nutrients and then inserted into her womb, where it implanted. The more positive the standard potential of metal, that is, the more non-metallic it is, the wider the ability to choose a returner. The main condition for the reaction to occur is its autocatalytic character, which means that the sedimentation metal will depend on its ability to catalytically accelerate the return process. The degree of autocatalysis will depend on the nature of the metal and the returner.

In case of a reaction without the presence of autocatalysis, it leads to the formation of powdery metal in the entire solution volume. A number of returners have been proposed for the autocalytic return of metals. These include hypophosphate, hydrazine, formaldehyde, borgidrid and its yields, ions of some metals ($^{Sn+2}$, Fe^{+2}, $Cr^{+2, Ti+2}$, Co^{+2}). By chemical recovery, coatings can also be obtained from all the metals listed above, as well as additional and third coatings of these metals. In this case, autocatalytic returned metal can be precision in combination with chemically irreversible metal [3].

The main components of the solution for chemical precision are sedimentation metal, complex compounds of the returner. An increase in the concentration of the returner leads to an increase in the rate of chemical precision of the metal. However, such dependence is maintained to a certain value (e.g. up to 0.6 mol/dm^3 for formadehyde and 0.05 mol/dm 3 for borgidrid). Further increase in the return concentration does not affect the chemical precision of the metal in practice, but greatly reduces the stability of the solution. An increase in the concentration of returned metal ions can lead to a slightly faster or slow increase in the rate of precision. The resulting embryo was allowed to develop in nutrients and then inserted into her womb, where it implanted.

The main reagent involved in the autocatal regeneration of metal is hydroxide or hydrocsonic ions. There is no binding of the same type between on^- concentration (solution pH i) and recurrence rate. The link here is very complex, defined by the water of the returner on one side and the general stexiometry of the return process on the other. The effect of temperature on the autocatalytic return process of metals is also characterized by exponential dependence for many reactions. However, it is very difficult to obtain a direct dependence on $\alpha=f'(t)$, which is complicated by the stability of the melt and the high sensitivity of the speed of intermediate reactions to changes in temperature.

The value of the activation energy of the chemical return processes of metals ranges from 20 to 100 kJ/mol.

Often, during the autocathalization of metals, hydrogen (also nitrogen in hydraulics) is separated, and their separation speed is proprietary to the speed at which the metal sinks. The separation of gases causes the solution to mix. The literature also contains information contradicting the speed at which the metal is chemically returned. For example, at room temperature, there are indications of the structure of the precision rate when mixing alkaline solutions of chemical coating. Unless otherwise indicated, Scripture gives a tremble-colored wild beast promotes the making of an entity used by Jehovah's Witnesses in accord with the procedure laid down in accordance

In chemical coating solutions, the process of return at smaller concentrations of titanium and smaller speeds of precision is controlled by the mass transfer process. In this case, at high concentrations of ions and greater speeds of precision, its value will be very small. When mixing the solution, a decrease in the average precision rate can lead to an increase in oxygen diffusion on the surface of the coating. It should be noted that by mixing the solution, the stability of chemical goldfed increases.

Currently, there are three main areas in explaining the autocadalitic return mechanism of metals. The first of these is based on the return of metal ions with atomic hydrogen or hydrorid-ion, which occurs due to the interaction of the metal catalyst with the reverter.

The second direction is based on the assumption that the internal-molecular oxidation-return of the complex accumulation of the returned metal may occur. The third direction includes many electrochemical directions related to the autocatalytic return of metals.

Currently, researchers are focusing more on the third direction.

The electrochemical approach, which is much simpler to explain the mechanism of electrochemical return of metals, is based on the use of a model of fully parsial electrode reactions proposed for electrochemical corrosion for the first time. Such an approach to the chemical return processes of metals is described in the example of chemical goldization. Later, Van Den-Meeraker assumes that the autocatalization of metals is the result of the harmonization of two different processes: oxidation of the returner by the formation of electrons and their transfer to the catalytic surface:

$$Red \xrightarrow{Mt_{kat}} Ox + ne.$$

Katodli – katalitik sirtda metal va vodorodning qaytarilishi:

$$Mt^{+2} + e = Mt^{o}$$

$$H^{+} + e = H^{o}$$

$$H^{o} + H^{o} = H_2$$

The hypothesis about the electrochemical mechanism of the autocatalytic return process of metal is based on two unrelated reactions occurring on a single surface: the anode oxidation of the returner and the cathode return of the metal.

It should also be noted that catalytic surface properties, in turn, depend on the nature of electrode and chemical reactions.

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