

PHASE DIAGRAMS AND CORROSION AND ELECTROCHEMICAL PROPERTIES OF METAL BINARY ALLOYS. 3. CHANGE IN CORROSION AND ELECTROCHEMICAL PROPERTIES OF THE ALLOYS WITH THE ADVENT OF NEW PHASE

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Corrosion behavior of some metallic alloys was considered. It was found that sudden changes in corrosion resistance with changing of alloy composition take place only in the case of corrosion with Hydrogen depolarization. In the conditions of oxygen depolarization these changes are absent. Electrochemical properties (such as anodic and cathodic polarizabilities, oxidation etc.) change more appreciably with the advent of new phase than corrosion resistance. The most typical concentration dependencies for the corrosion rate and corrosion potential were revealed for six basic phase diagrams.