



THE PHYSICAL AND CHEMICAL CONDITIONS INFLUENCE ON METAL PRODUCTS CORROSION CAUSED BY THIOBACILLI (IN MODELLING EXPERIMENTS)

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The metal and nonmetal products, which are maintained in air or liquid environments, constantly are exposed to bacteria destructive action.

The huge losses caused by microbiological corrosion, require development of biodamages protection effective means. The time of an industry and construction persistently dictates rough development necessity of complex researches elements that cause corrosion, development reliable technology to prevent corrosion and coverings creation that are able to prevent corrosion. But, now, microorganisms, mainly Thiobacilli, win modern struggle methods with corrosion. To struggle with microbiological corrosion apply various methods of water and inhibitors preparation, which protective action connected with their adsorption on a metal surface and protective film formation on it. The complexities connected with corrosion inhibitors application in water supply system are caused by the high requirements to circulating waters quality.

The purpose of the submitted work is study of conditions influence of water preparation and chemical inhibitors on development of corrosion processes in laboratory conditions. As objects of research are used Thiobacilli isolated from circulating waters of the Odessa thermal networks. As a result of the experiments is shown, that water technology change preparation (the sulfate ions replacement on chlorine) did not influence on Thiobacilli number and corrosion activity in simulating system, modelling installations of thermal networks supply.

The introduction of inhibitor of corrosion in culture environment did not influence on Thiobacilli quantity; however oppressed of corrosion processes development. At corrosion inhibitor presence destruction of metal plates during all term of supervision (6 months) did not register. Long and regular supervision over of Thiobacilli development in modelling installations has shown prospects of corrosion inhibitor using for the metal pipes destruction prevention.



**ВЛИЯНИЕ ФИЗИЧЕСКИХ И ХИМИЧЕСКИХ ФАКТОРОВ НА КОРРОЗИЮ МЕТАЛЛИЧЕСКИХ
КОНСТРУКЦИЙ, ВЫЗВАННУЮ ТИОНОВЫМИ БАКТЕРИЯМИ**

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Вивчався вплив фізичних та хімічних факторів на окиснення металевих конструкцій тіоновими бактеріями. На протязі тривалого часу вивчалися всі аспекти росту бактерій, вплив різних факторів на ріст бактерій та їх окислювальну активність.